

Quality of stent procedures consistently good across US

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Hospitals ranked among the best in cardiology and heart surgery by U.S. News and World Report appear no better at performing percutaneous coronary intervention (PCI), a potentially life-saving heart procedure, than unranked hospitals, according to preliminary research presented at the American Heart Association's Scientific Sessions 2017, a premier global exchange of the latest advances in cardiovascular science for researchers and clinicians.

During PCI, also known as angioplasty, doctors open narrowed or blocked blood vessels from within by inflating a balloon. In most cases, a scaffold called a stent is inserted at the site to help ensure the blood vessel stays open.

"Previous studies have found that top-ranked hospitals generally performed better than non-ranked hospitals for many cardiovascular conditions," said Devraj Sukul, M.D., lead study author and a cardiology fellow at the University of Michigan in Ann Arbor, one of the top-ranked hospitals for PCI. "However, due to significant quality improvement initiatives aimed at improving PCI outcomes, along with advances in pharmacologic and technical aspects of PCI care, we wanted to see if many more hospitals around the United States were performing safe and high-quality PCI."

Researchers based their comparison of PCI results at ranked and unranked hospitals on patient information and PCI outcomes submitted to the National Cardiovascular Data Registry CathPCI. Altogether,

researchers reviewed the results of 509,153 angioplasties performed between July 2014 and June 2015 at 654 hospitals (six hospitals ranked among the top 50 by U.S. News and World Report in 2015 were not included in this study because they either did not submit data to the registry or performed a low number of PCIs, making comparisons difficult).

The study found that ranked and unranked hospitals had:

- similar rates of in-hospital deaths (less than 2 percent); and
- similar rates of acute kidney injury and bleeding—two of the most common complications of PCI, which can increase a patient's risk of dying, hamper recovery and lead to longer hospital stays and increased [hospital](#) costs.

According to the authors, the study also found that only 1 to 3 percent of PCIs performed at all the hospitals in the registry were classified as "inappropriate."

"In real-life clinical practice, there are many factors to be considered when deciding whether a patient will benefit from PCI," Sukul said. "As always, the best way for patients to ensure they get the best treatment is to be actively engaged in their own health care by communicating openly with their physicians and asking questions."

Sukul added that patients needing PCI should be reassured that non-ranked hospitals had similar outcomes as ranked hospitals in performing the procedure. "Safe and appropriate PCI is performed across the nation in hospitals participating in this registry and meeting minimum volume targets," he said.

Study limitations include that not all hospitals performing PCI participated in the registry. The study also looked at only one [heart](#)

procedure, so its findings cannot be generalized to other heart problems and treatments.

Provided by American Heart Association

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