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## TAVR Continues to Evolve



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According to a report published by *The Annals of Thoracic Surgery* and the *Journal of the American College of Cardiology*, transcatheter aortic valve replacement (TAVR) continues to evolve and has demonstrated positive outcomes for patients with aortic stenosis.

When it was first approved, TAVR required cardiothoracic surgeons and cardiologists to use transfemoral access (via the groin). Later, the procedure further evolved to include transapical, transaortic and transcarotid access.

See also: [New Technology to Replace Heart Valves](#)

Since the approval of TAVR by the FDA, the US Centers for Medicare & Medicaid Services (CMS) require all hospitals that perform TAVR to capture clinical information in The Society of Thoracic Surgeons/American College of Cardiology Transcatheter Valve Therapy Registry (STS/ACC TVT Registry™) as a requirement for Medicare coverage.

The report reviews the trends and analyses the outcomes of patients who underwent TAVR procedures. It includes information on 26,414 TAVR procedures performed between January 2012 to December 2014. Outcomes of patients who underwent TAVR in 2012-13 were compared with the outcomes of patients who went through the procedure in 2014. The TAVR patients included in the analysis were elderly with an average age of 82 years, suffered from multiple heart conditions and were frail with poor self-reported health status.

“The most important takeaway is the fact that the TAVR procedure continues to change since its initial approval by the FDA in 2011,” said Dr. David R. Holmes Jr., MD. “Patients undergoing TAVR remain primarily elderly and high-risk for surgical replacement, but the predicted risk of mortality has declined over the course of time. This is the result of changes in regulatory instructions for use and approval of alternative access points.”

The results from the analysis showed that the risk for mortality, myocardial infarction, kidney injury, and neurologic complications were low and were clinically consistent in both groups. Vascular complications declined from 5.6 percent in 2012-2013 to 4.2 percent in 2014. Site-reported stroke rates remained stable at 2.2 percent. Use of moderate sedation instead of general anaesthesia has enabled quicker recovery and shorter procedure duration thus reducing the patient's length of stay and an overall reduction in hospital costs.

See also: [TAVR Surgery and Vascular Complications](#)

Dr Frederick L. Grover, MD, from University of Colorado explains that the results show that TAVR is safe and effective for the relief of symptoms in the short term for patients who are frail or elderly with multiple health conditions.

Source: [Society of Thoracic Surgeons](#)

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