

The evolution of aortic valve therapies - the surgeon's perspective

Michael S. Firstenberg, William M. Novick

William Novick Global Cardiac Alliance, University of Tennessee Health Science Center-Global Surgery Institute

During the past 10 years there has been a significant shift in how aortic valve disease is managed. The development of catheter-based therapies, specifically trans-aortic valve replacement (TAVR), has offered treatment options for patients in whom surgery (SAVR) was previously their only option. The global growth in the utilization of TAVR has been tremendous and embraced with much enthusiasm. However, such growth has not been without significant controversies and costs. The use of Heart Teams to help guide the evaluation and management of patients with aortic valve disease has been an important step in trying to match the specific therapy options with the unique patient characteristics – however, it is important to recognize that catheter-based therapies are still relatively new, in constant evolution, and potentially influenced by substantial conflicts of interest. While the role of TAVR in high or prohibitive risk patients is established, the evolving role in low and intermediate risk patients is unclear and potentially controversial given some of the concerns that the short-term benefits when compared to traditional surgical therapies might not result in durable long-term outcomes and freedom from major events and reinterventions. The literature on this topic is extensive and the goal of this review is to hopefully raise some of the concerns regarding the perceived benefits of TAVR over SAVR especially in the context of whether this extremely expensive therapy should be considered the new global standard of care.

Key words: aortic stenosis, aortic valve disorder, heart surgery, Heart Team, structural heart therapies, transcatheter therapies