B-071

Title: Comparison of Incidence, and Predictors of Short-term Hospital Readmissions After Transcatheter vs Surgical Aortic Valve Replacement: Insight From the Nationwide Readmissions Database (NRD)

Category: Valvular Interventions and Structural Heart Disease

Authors: Reza Masoomi, The University Of Kansas Medical Center, United States; Peter N. Tadros, The University Of Kansas Medical Center, United States; Buddhadeb Dawn, The University Of Kansas Medical Center, United States; Kamal Gupta, The University Of Kansas Medical Center, United States

Background: Transcatheter aortic valve replacement (TAVR) is an established therapy for patients with severe aortic stenosis who are at high or intermediate risk for surgical aortic valve replacement (SAVR). National data on readmission rates and predictors of readmission in TAVR as compared to SAVR are less well known and this was the focus of this research.

Methods: We did a secondary analysis of the Nationwide Readmissions Database (NRD) for the year 2013. We included all patients who underwent TAVR or SAVR from 21 states included in NRD database in 2013. From this group, all patients readmitted within 30 days were recorded.

Results: Mean age of TAVR patients was significantly higher (81.4 ± 8.5 vs. 68.8 ± 13.1 P<0.001) and as was the Charlson comorbidity score (2.6 ± 1.7 vs 1.6 ± 1.5, P<0.001). The TAVR group had a significantly higher rate of 30-day readmission rate and in-hospital mortality (table-1). However, after adjusting for age and comorbidities, TAVR group did not have an increased readmission rate. Hospitalization in teaching hospitals was associated with lower readmission rate (P<0.01).

The most common causes of 30-day readmission for TAVR were heart failure (20.3%) followed by procedure complication (10%) and then arrhythmia (5.5%).

Conclusion: The readmission rate after TAVR is higher than SAVR, but patients underwent TAVR are older and sicker with much more comorbidities. After adjusting for other risk factors, TAVR was not associated with higher readmission rate. Heart failure is a major cause of readmission in patients undergoing TAVR and SAVR, which points out to importance of close follow up of these patient from HF standpoint on discharge.

B-072

Title: Short- and Mid-Term Outcomes After Transcatheter Aortic Valve Replacement in Patients with Low Versus High Gradient Severe Aortic Stenosis in the Setting of Preserved Left Ventricular Ejection Fraction

Category: Valvular Interventions and Structural Heart Disease

Authors: Daniel McDonald, NYU Langone Medical Center, United States; Darien Paone, NYU Langone Medical Center, United States; Rahul Thakker, NYU Langone Medical Center, United States; Pascale Houanche, NYU Langone Medical Center, United States; Muhamed Saric, NYU Langone Medical Center, United States; Ricardo Benenstein, NYU Langone Medical Center, United States; Alan Vainrib, NYU Langone Medical Center, United States; Robert Donnino, NYU Langone Medical Center, United States; Michael Querijero, NYU Langone Medical Center, United States; Hasanian Jilaihawi, NYU Langone Medical Center, United States; Binita Shah, NYU Langone Medical Center, United States; Mathew Williams, NYU Langone Medical Center, United States

Background: Patients with severe aortic stenosis in the setting of low gradient and preserved left ventricular ejection fraction (LVEF) remain an area of clinical uncertainty.

Methods: Retrospective chart review identified 209 patients who underwent transcatheter aortic valve replacement (TAVR) between September 2014 and September 2015. Of these patients, 3 (1.4%) were excluded due to procedural indication other than severe aortic stenosis and 41 (20%) were excluded due to reduced LVEF (<50%). Of the

	N=137 (%)
Technical success	129 (94.1)
Procedural success	121 (88.3)
Non CV Death	1 (0.7)
CV death	1 (0.7)
Vascular Complication	
Minor	3 (2.2)
Major	3 (2.2)
Bleeding	
Minor	4 (2.9)
Major	2 (1.5)
Life threatening	6 (4.4)
Pericardial effusion needing tap/ surgery	4 (2.9)
CVA	0
Embolization	0
Device thrombus at 45 days	2 (1.5)
Composite MACCE	16 (11.7)
AC not discontinued	5 (3.8)

remaining 165 patients with aortic valve area <1 cm2, 77 (47%) had either a peak velocity <4.0 m2 or mean gradient <40 mmHg (LG group) and 88 (53%) had both peak velocity >4.0 m2 and mean gradient >40 mmHg (HG group) across the AV. Outcomes were defined by the valve academic research consortium 2 criteria when applicable and compared between the LG and HG groups via Fisher's exact test. Median follow-up was 367 days. Continuous data are shown as median [interquartile range] and categorical data are shown as proportions.

Results: The 30-day mortality risk as assessed by Society of Thoracic Surgery score was not significantly different between the LG and HG groups (5.9% [3.5-8.1] vs 6.2% [4.4-7.6], p=0.45). There were no significant differences in outcomes (Table).

Conclusion: In a high-volume center, patients undergoing TAVR for severe AS with LG preserved LVEF have no significant difference in adverse outcomes, both in-hospital and on 1-year follow-up, when compared to patients with HG preserved LVEF.

Disclosures:
Daniel McDonald: This author has nothing to disclose.
Darien Paone: This author has nothing to disclose.
Rahul Thakker: This author has nothing to disclose.
Pascale Houanche: This author has nothing to disclose.
Muhamed Saric: 9 Siemens advisory board, 8 Philips, 8 Medtronic
Ricardo Benenstein: This author has nothing to disclose.
Alan Vainrib: This author has nothing to disclose.
Robert Donnino: This author has nothing to disclose.
Michael Querijero: 8 Medtronic
Hasanian Jilaihawi: 9 Consultant Edwards Lifesciences - Significant
Binita Shah: 2 Siemens Medical Solutions
Mathew Williams: This author has nothing to disclose.

B-073

Title: Self-expanding CoreValve vs. Balloon Expandable Sapien Valve: Short and Long Term Outcomes
Category: Valvular Interventions and Structural Heart Disease
Authors: Perwaiz Meraj, Hofstra Northwell School of Medicine - North Shore University Hospital, United States; Rajkumar Doshi, Hofstra Northwell School of Medicine - North Shore University Hospital, United States; Krishin Shivdasani, Hofstra Northwell School of Medicine - North Shore University Hospital, United States

Background: The two main devices used for the treatment of severe aortic stenosis (AS) via transcatheter aortic valve repair (TAVR) are the self-expanding Medtronic Corevalve and balloon expandable Edwards Sapien valve. Limited data exists on the result of a comprehensive TAVR program using these two valves. Our aim was to compare clinical outcomes after TAVR with these two commercially available valves.

Methods: 460 consecutively treated patients between January 2011 and September 2016 from five tertiary care centers were selected for this study. Baseline demographics and outcomes for both cohorts were obtained. Univariate and multivariate analyses were performed using SAS 9.4 (SAS Institute, Cary, NC).

Results: A total of 168 patients were treated with Corevalve (Core-Valve Classic and EvolutR) and 292 patients were treated with Sapien (Sapien 3, Sapien XT, Sapien) valve. Contrast volume and fluoroscopy time was significantly less with Sapien valve use. Lower permanent pacemaker requirement, post procedure aortic insufficiency and death on discharge noted with Sapien valve when compared to Corevalve. However, RBC transfusion was notably higher with Sapien valve.

Conclusion: Global marketshare for TAVR has been in the favor of the Sapien valve system, and it appears that real-world data analyzed here among high volume TAVR sites demonstrates that the outcomes are better in the Sapien valve than with CoreValve. Although this analysis was corrected for confounders, there may be an inherent bias towards treating sicker patients with CoreValve given its lower profile and less aggressive pacing requirements.

Disclosures:
Perwaiz Meraj: This author has nothing to disclose.
Rajkumar Doshi: This author has nothing to disclose.
Krishin Shivdasani: This author has nothing to disclose.

B-074

Title: Impact Of Renal Function On Valvular Hemodynamics And Clinical Outcomes In Transcatheter Aortic Valve Replacement
Category: Valvular Interventions and Structural Heart Disease
Authors: Allan Chen, University of South Florida College of Medicine, United States; Vishal Parikh, University of South Florida College of Medicine, United States; Gregory Coffman, University of South Florida College of Medicine, United States; Tesfaldet Michael, University of South Florida College of Medicine, United States; Rogras Damrongwatanasuk, University of South Florida College of Medicine, United States; Fadi Matar, University of South Florida College of Medicine, United States; Christiano Caldeira, University of South Florida College of Medicine, United States; John Sullebarger Sullebarger, University of South Florida College of Medicine, United States; Robert Hooker, University of South Florida College of Medicine, United States; Kevin Kip, University of South Florida College of Medicine, United States; Arthur Labovitz,

Multivariate Analysis: Predictors of MACCE