



## INCIDENCE AND OUTCOMES OF PATIENTS REQUIRING SURGICAL BAIL-OUT DURING TRANSCATHETER AORTIC VALVE REPLACEMENT: A REPORT FROM THE NCDR® STS/ACC TRANSCATHETER VALVE THERAPY (TVT) REGISTRY

Moderated Poster Contributions

Interventional Cardiology Moderated Poster Theater, Poster Hall, Hall C

Saturday, March 18, 2017, 1:30 p.m.-1:40 p.m.

---

Session Title: Refining TAVR Outcomes

Abstract Category: 17. Interventional Cardiology: Aortic Valve Disease

Presentation Number: 1224M-11

---

Authors: *Andres M. Pineda Maldonado, J. Kevin Harrison, Neal Kleiman, Charanjit Rihal, Susheel Kodali, Ajay Kirtane, Martin Leon, Pratik Manandhar, Sreekanth Vemulapalli, Nirat Beohar, Duke University Medical Center, Durham, NC, USA*

**Background:** The incidence of unplanned conversion to open heart surgery, “surgical bail-out”, during transcatheter aortic valve replacement (TAVR) is incompletely defined and the clinical outcomes of these patients are not well characterized.

**Methods:** Data from the STS/ACC TVT registry was analyzed with respect to whether or not surgical bail-out was performed at the time of the index TAVR procedure. The Fine and Gray method and Cox proportional hazards models were used to evaluate non-fatal events and 30-day and 1-year mortality, respectively.

**Results:** Between November 2011 and September 2015, a total of 47,659 eligible patients underwent TAVR. Surgical bail-out during TAVR was performed in 1.17% of the cases (558 patients) and the most frequent indications were valve dislodgement (22%), ventricular rupture (20%), and aortic valve annular rupture (14.2%). At baseline, patients in the surgical bail-out group were older, had a higher incidence of female gender, and non-femoral approach. However, fewer patients had diabetes, end-stage renal disease on dialysis, hostile chest, prior myocardial infarction, and significant coronary artery disease. Surgical bail-out was more frequently performed at institutions with lower TAVR volume. The in-hospital mortality of those who underwent surgical bail-out was higher when compared to those who did not (49.6 vs. 3.5%,  $p<0.001$ ). Over 70% of the registry patients had CMS-linked 30-day and 1-year outcome data. At 30 days after TAVR, surgical bail-out was associated with an increased incidence of stroke (6.6 vs. 2.3%,  $p<0.001$ ), any bleeding (35.4 vs. 12.3%,  $p<0.001$ ), aortic valve reintervention (1.53 vs. 0.48%,  $p<0.001$ ), and death (49.6 vs. 5.0%,  $p<0.001$ ). Similarly, the 1-year incidence of stroke (7.9 vs. 3.4%,  $p<0.001$ ), any bleeding (38.6 vs. 20.7%,  $p<0.001$ ), aortic valve reintervention (1.53 vs. 1.14%,  $p<0.001$ ), and death (59.5 vs. 17.1%,  $p<0.001$ ) were higher in those who underwent surgical bail-out.

**Conclusions:** The incidence of surgical bail-out in patients undergoing TAVR in TVT registry was about 1%, and was associated with 50% 30-day mortality. Further research to identify patients at an increased risk for surgical bail-out is warranted.