

Length of stay after transfemoral transcatheter aortic valve replacement: an analysis of the Society of the Thoracic Surgeons/American College of Cardiology Transcatheter Valve Therapy Registry

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Period of study 1 November 2011 to 30 September 2015

Objectives

To investigate the trends, predictors and outcomes of delayed discharge (>72h) after transcatheter aortic valve replacement (TAVR)

Study design

Observational.

Materials and methods

- The Society of Thoracic Surgery/American College of Cardiology Transcatheter Valve Therapy (STS/ATS TVT) Registry was founded in 2011
- All patients were included from the TVT registry ≥18 years who underwent TF-TAVR
- Patients were excluded if 1. they died during hospitalisation, 2. the procedure was aborted or cancelled or 3. they were transferred to another facility or discharged to any place other than home
- Patients were categorised as either early discharge (≤72h) or delayed discharge (≥72h)

Key results

- A total of 13,389 (55%) patients were discharged within 72h whereas 10,896 (45%) patients were discharged beyond 72h
- There was a significant decline in rates of delayed discharge across the study period (62% vs 34%; $p < 0.01$)
- Advanced age (≥85 years) was found to be an independent predictor for delayed discharge

Limitations of study

- Being observational in nature is a limitation of this study
- Risk of confounding could not be excluded entirely despite adjusting for differences in baseline characteristics and in-hospital complications
- The field of TF-TAVR has seen rapid changes in patient selection, techniques and post-procedural care: therefore, the study results may not reflect current practice standards
- 1-year outcome data were driven from administrative database, so the outcomes might have been overestimated

Conclusions

- Rates of delayed discharge have declined between 2011 and 2015
- Delayed discharge is associated with a significant increase in mortality even after adjusting for in-hospital complications