

# Vancouver Transcatheter Aortic Valve Replacement Clinical Pathway. Minimalist Approach, Standardized Care, and Discharge Criteria to Reduce Length of Stay

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**Period of study** May 2012 to October 2014

## Objectives

Developed as a quality improvement initiative, the objectives were to 1. implement risk-stratified periprocedural minimalist practices, 2. reduce the variation in care after transfemoral (TF) TAVR, 3. identify a subgroup of patients potentially suitable for early discharge (EDC) ( $\leq 48$  hours) and 4. reduce overall LOS for all patients.

## Study design

Retrospective.

## Materials and methods

- Risk stratification was conducted at the time of eligibility
- Comorbid burden, objective anatomic and autoimmune and functional criteria and the availability of imaging reports were considered to determine individual TAVR risk
- All patients were considered high surgical risk, but lower TAVR risk patients were preferentially assigned to have the procedure in an adapted cardiac catheterisation laboratory, whereas a hybrid operating room was used for patients of varying risk profiles
- A urinary catheter was used to avoid the risk of complications
- Decisions on other invasive equipment, such as a central venous catheter or the side arm of the femoral venous sheath used for temporary pacing, or the insertion of a radial artery line were determined by the anaesthesiologist
- If general anaesthesia was required, patients were extubated in the procedure room
- The temporary pacemaker was removed

## Key results

- 393 (99%) of patients were discharged from the procedure hospital
- Of these, 150 (38%) were discharged within 48h of their procedure (early discharge)
- 243 (62%) had LOS  $> 48$ h
- 16 (4%) of patients had a LOS that extended from 8 to 22 days
- There were 4 (1.0%) post-procedure in-hospital deaths
- Life-threatening bleeding occurred in three cases (0.8%)

## Conclusions

TAVR is an effective therapy for intermediate surgical risk patients and implementation of a risk-stratified clinical pathway will garner increased importance. This study informed the development of the 3M TAVR study.