St. Vincent Health

St. Vincent MEDICAL GROUP

Patient Selection and Post-Procedure Care in TAVR

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I Have No Disclosures

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Patient Selection for TAVR: An evolving process based on research trials:

- Early TAVR patients included Extreme/Prohibitive/High Risk patients with severe aortic stenosis
  - AVA < 0.8 cm2, peak aortic velocity > 4.0 meters/second, mean aortic valve gradient > 40 mmHg.
  - Calcific valvular Aortic Stenosis diagnosed by Transthoracic echo, CTA, NYHA Functional Class II or greater symptomology
  - Right/Left Heart Cath evaluation for concomitant CAD and pulmonary HTN
- Modern TAVR patients now include:
  - Extreme/Prohibitive risk: STS PROM score > 50% at 1 year, > 3 major organ compromise, severe frailty
  - High risk: STS-PROM > 8%, > 2 major organ compromise, mod-severe frailty
  - Intermediate risk: STS-PROM 4-8%, 1 major organ compromised, mild frailty
  - Low risk (current research trials): STS-PROM < 4%, no frailty, no comorbidity
- Expanded use trials: TAVR for Valve-in-valve, Dialysis pts, and Bicuspid Aortic Valves

Otto CM, et. al. . **2017 ACC Expert Consensus Decision Pathway for Transcatheter Aortic Valve Replacement in the Management of Adults With Aortic Stenosis** Clinical Expert Consensus Documents. JACC.2016.12.006

Exclusion Criteria for TAVR

- Aortic Stenosis is not severe
- Prior disabling CVA
- Significant incapacitating dementia
- Life Expectancy less than 1 year
- Echocardiographic evidence of mass, thrombus or vegetation
- Other concomitant significant valvular disease: Severe Mitral Stenosis
- Extreme frailty

“Minimalist” Strategy: Improving post procedure course and length of stay

- Percutaneous transfemoral access
- No general anesthesia – Monitored anesthesia care
- No periprocedural TEE, TTVP discontinued in procedure room
- Reduced number of operators in the Hybrid Lab, potentially completed in cath lab
- Early discharge strategy
- Can be applied to 90% of TAVR patients - will likely become the default strategy
- Shorter length of stay by 3 days, decreased procedure time 36 minutes
- Ability to assess neurological status throughout procedure

Durand E, Eltchaninoff H, Canville A, et al. Feasibility and safety of early discharge after transfemoral transcatheter aortic valve implantation with the Edwards SAPIEN-XT prosthesis. Am J Cardiol. 2015;115(8):1116–22.

Serletis-Bizios A, Durand E, Cellier G, et al. A prospective analysis of early discharge after transfemoral transcatheter aortic valve implantation. Am J Cardiol. 2016;118(6):866–72.

Current Post-TAVR Follow Up Care/Discharge is Mediated by:

- Presence or absence of conduction delay: AV block, new RBBB/LBBB
- New arrhythmia – atrial fib post TAVR
- Vascular complications
- Pre-existing acute conditions: CHF, Renal failure, COPD
- Urinary Retention
- Family Support/Independent living
- Frailty
- Review of post procedure echo
- Neurological status

The future of transcatheter valve therapies