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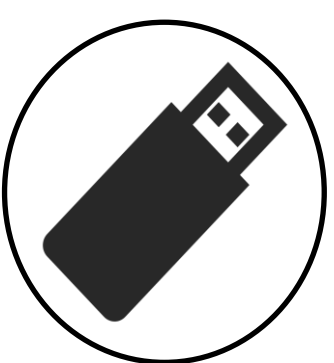




BACKGROUND

- AHA/ACC guidelines highlight shared decision making between providers and patients about choice of valve type.
- Mechanical valves necessitate lifelong anticoagulation, which increases risk of bleeding events.
- Anticoagulation therapy is difficult to manage. It imposes diet and lifestyle restrictions, and routine monitoring for patients.

OBJECTIVE

To understand the impact of valve choice on the patients’ rate of bleeding-related admissions after surgical aortic and mitral valve procedures.

METHODS

-  **Dataset:** Nationwide Readmissions Database (NRD) 2018-2020
-  **Cohorts:** Tissue | Mechanical
-  **Inclusion:** Adult patients (18+) who received surgical aortic valve (SAVR) and mitral valve (SMVR) replacement procedures
-  **Analysis:** Kaplan-Meier estimates from survey-adjusted propensity-matched cohorts
-  **Outcomes:** Bleeding-related readmission rates at 30-, 60-, 90- days, and 1-year after surgical valve replacement procedure

Results



CONCLUSIONS

- Nationally representative **bleeding-related readmission rates were higher with mechanical valves** compared to tissue valves for both aortic and mitral valve replacement groups
- Consideration of valve choice** can help alleviate the risk of bleeding

IMPLICATIONS

- Valve selection can **impact patient’s lifestyle and health, affect the efficiency and outcomes for providers**, and ultimately lead to **financial implications for payers** who bear the costs.
- Patients and providers should carefully **evaluate risks** associated with **life-long anticoagulation required with mechanical valves** during the shared decision-making process.

LIMITATIONS

- Due to the structure of the NRD data set:
- The data set can only identify readmissions that occur in the same calendar year.
- Readmissions that occurred in a different state than the index admission (rare) cannot be linked back to the same patient.
- Due to lack of data availability, we could not adjust for prior anticoagulation use, which is a factor in valve choice.

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