# Article information:

Transcatheter vs Surgical Aortic Valve Replacement in Pure Native Aortic Regurgitation - The Annals of Thoracic Surgery
[https://www.annalsthoracicsurgery.org/article/S0003-4975(22)01227-9/fulltext?dgcid=raven\_jbs\_etoc\_email](https://www.annalsthoracicsurgery.org/article/S0003-4975%2822%2901227-9/fulltext?dgcid=raven_jbs_etoc_email)

# Article summary:

1. Transcatheter aortic valve replacement (TAVR) has comparable short-term outcomes to surgical AVR (SAVR) in Medicare patients with pure native aortic regurgitation (AR).

2. However, after a median follow-up of 31 months, TAVR was associated with higher adjusted risk of death and need for redo-AVR compared with SAVR.

3. The possibility of residual confounding cannot be excluded given the older and frailer TAVR patients, which may have biased long-term outcomes.

# Article rating:

Appears moderately imbalanced: The article provides some useful information, but is missing several important points or pieces of evidence that would be required to present the discussed topics in a balanced and reliable way. You are encouraged to seek a more balanced perspective on the presented issues by exploring the provided research topics and looking at different information sources.

# Article analysis:

The article "Transcatheter vs Surgical Aortic Valve Replacement in Pure Native Aortic Regurgitation" presents a study comparing the outcomes of transcatheter aortic valve replacement (TAVR) and surgical AVR (SAVR) in patients with pure native aortic regurgitation (AR). The study found that TAVR had comparable short-term outcomes to SAVR, but long-term outcomes were inferior. However, the possibility of residual confounding cannot be excluded given older and frailer TAVR patients.

One potential bias in this study is the exclusion of patients with concomitant aortic stenosis, bicuspid AS, rheumatic AS, or those who underwent valve-in-valve intervention or concomitant mitral valve or ascending aorta operation. This exclusion may limit the generalizability of the findings to these patient populations. Additionally, the study only included Medicare beneficiaries, which may not represent the broader population.

The article also presents some unsupported claims, such as stating that TAVR is a safe and effective alternative for intermediate- or low-risk patients with AS without providing evidence to support this claim. Furthermore, while the study found higher adjusted risk of death and need for redo-AVR with TAVR compared to SAVR, it only reports numerically higher risks of stroke and endocarditis with TAVR without statistical significance.

The article does not explore counterarguments or potential limitations of the study's methodology. For example, while overlap propensity score weighting was used to adjust for confounders, it is unclear if this method fully accounted for all potential confounding variables. Additionally, while long-term outcomes were inferior with TAVR compared to SAVR in this study, it is possible that newer transcatheter valves may improve long-term outcomes.

Overall, while this article provides valuable insights into the outcomes of TAVR vs SAVR in patients with pure native AR, it has some limitations and potential biases that should be considered when interpreting its findings.

# Topics for further research:

* Long-term outcomes of TAVR vs SAVR in patients with concomitant aortic stenosis or bicuspid AS
* Safety and efficacy of TAVR in intermediate- or low-risk patients with AS
* Potential limitations of overlap propensity score weighting in adjusting for confounders
* Comparison of newer transcatheter valves with traditional SAVR in patients with pure native AR
* Impact of concomitant mitral valve or ascending aorta operation on outcomes of TAVR vs SAVR
* Comparison of TAVR vs SAVR outcomes in patient populations beyond Medicare beneficiaries.

# Report location:

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