

Cardiology Literature Roundup

February 4, 2026 Morning Brief

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STRUCTURAL HEART

1. NAVULTRA Registry: Navitor vs SAPIEN 3 Ultra in Small Annuli

Source: EuroIntervention, February 2, 2026

Summary: Multicenter real-world registry comparing outcomes between the self-expanding Navitor valve and balloon-expandable SAPIEN 3 Ultra in patients with small aortic annuli.

Key Findings:

- Head-to-head comparison in challenging small annulus anatomy
- Real-world data applicable to clinical practice
- Provides guidance for device selection in smaller patients

Clinical Relevance: Directly applicable to your TAVR program when planning cases in patients with smaller annuli.

2. DurAVR Biomimetic THV: 30-Day Outcomes in Small Annuli

Source: Recent publication, February 2026

Summary: Novel leaflet design biomimetic transcatheter heart valve demonstrating promising early results in small aortic annuli.

Key Findings:

- High technical success rates
- Favorable hemodynamic outcomes at 30 days
- Novel biomimetic approach to valve design

Clinical Relevance: Emerging technology to watch — another potential tool in the pipeline for challenging small annulus cases.

3. Residual Mean Gradient After TAVR Predicts Long-Term Outcomes

Authors: Palmerini et al.

Source: February 2026

Summary: Analysis of post-procedural residual mean pressure gradients and their association with structural valve deterioration and mortality.

Key Findings:

- Early residual MPG independently predicts structural valve deterioration
- Associated with bioprosthetic valve failure (BVF)
- Linked to increased 10-year mortality

Clinical Takeaway: Don't ignore post-procedural gradients. Careful attention to hemodynamic results at time of implant may have long-term implications.

INTERVENTIONAL

4. 3D ICE in Structural Interventions: Expert Review

Source: EuroIntervention, February 4, 2026

Summary: Comprehensive expert review on the use of 3-dimensional intracardiac echocardiography for guiding structural heart procedures.

Applications Covered:

- TAVR guidance
- Left atrial appendage occlusion (LAAO)
- PFO/ASD closures
- Other structural interventions

Clinical Relevance: Worth reading if you're considering expanding ICE use in your practice — offers high-resolution imaging without the need for TEE and general anesthesia.

5. Leadless vs. Transvenous Pacemakers Post-Valve Surgery

Summary: With growing rates of permanent pacemaker implantation after TAVR and valve surgery, this analysis compares outcomes between leadless pacemakers (Micra) and conventional transvenous pacing.

Clinical Relevance: Useful for post-procedure decision-making when patients require permanent pacing after structural interventions.

QUICK HITS

M-TEER + GDMT Superiority Confirmed

Updated meta-analysis confirms that mitral transcatheter edge-to-edge repair (M-TEER) combined with guideline-directed medical therapy reduces death and heart failure hospitalization at 24 months compared to GDMT alone in functional MR.

AF Common After PFO Closure

Implantable cardiac monitor study found high incidence of asymptomatic paroxysmal atrial fibrillation following PFO closure, with significant late-onset events occurring beyond 30 days post-procedure. Implications for monitoring strategy.

Exercise-Based Cardiac Rehab Benefits TAVR Patients

RCT meta-analysis supports functional benefit of exercise-based cardiac rehabilitation after TAVR, even in patients with successful aortic stenosis correction.

Summary

This week's literature continues to advance our understanding of:

1. **Device selection** in challenging anatomies (small annuli)
 2. **Procedural optimization** (residual gradients matter)
 3. **Imaging advances** (3D ICE expanding indications)
 4. **Post-procedure management** (pacing strategies, rehab, AF monitoring)
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