

PRO-TAVI: Deferring PCI Before TAVI Non-Inferior to Routine PCI

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Patients undergoing transcatheter aortic valve implantation (TAVI) frequently present with concomitant coronary artery disease. The clinical question has been whether routine percutaneous coronary intervention (PCI) before TAVI offers a benefit over deferring PCI. The PRO-TAVI trial, reported at ACC.26, provides evidence that deferral of PCI is non-inferior to routine PCI in this patient population.¹

KEY TAKEAWAYS

- ° The Pivot: Deferring PCI before TAVI is non-inferior to routine PCI.
- ° The Data: The primary endpoint occurred in 16.2% of the deferral group versus 16.1% of the routine PCI group (HR 1.01; 95% CI 0.77-1.33; p for non-inferiority 1
- ° The Action: Routine PCI before TAVI for coronary artery disease is not supported by these data; deferral is a safe alternative.

Coronary artery disease (CAD) is a common comorbidity in patients referred for transcatheter aortic valve implantation (TAVI). The prevalence of significant CAD in TAVI candidates ranges from 40% to 75%, depending on the definition of CAD and the patient population studied. This high co-occurrence presents a complex clinical scenario, as both conditions independently contribute to adverse cardiovascular outcomes. The optimal management strategy for CAD in this context, specifically regarding the timing and necessity of percutaneous coronary intervention (PCI), has been a subject of ongoing debate. While routine PCI before TAVI has been a common practice, driven by concerns that untreated CAD could lead to periprocedural myocardial infarction or long-term adverse events, the potential for increased procedural complexity, contrast exposure, and periprocedural complications has prompted investigation into alternative strategies. These complications include acute kidney injury from contrast, vascular access site complications, and the risk of stent thrombosis. The PRO-TAVI trial aimed to address this clinical dilemma by evaluating whether deferring PCI is non-inferior to routine PCI in patients with CAD undergoing TAVI.¹

The PRO-TAVI Trial: Design and Findings

The PRO-TAVI trial was an investigator-initiated, multicentre, open-label, non-inferiority, randomised controlled trial. It enrolled 1,200 patients with coronary artery disease undergoing TAVI across multiple centres. Eligibility criteria included patients with severe symptomatic aortic stenosis deemed suitable for TAVI, who also had significant CAD defined as at least one coronary artery stenosis of ≥50% in a vessel ≥2.5 mm in diameter, or ≥50% in the left main coronary artery. Patients with acute coronary syndromes within 30 days, severe left main disease requiring surgical revascularization, or previous coronary artery bypass grafting were excluded. Patients were randomly assigned in a 1:1 ratio to either a deferral of

PCI group or a routine PCI group before TAVI. In the deferral group, PCI was performed only if symptoms or objective signs of myocardial ischemia attributable to CAD developed after TAVI. In the routine PCI group, revascularization of all significant coronary lesions was performed prior to TAVI, typically within 30 days. The primary endpoint was a composite of all-cause death, myocardial infarction, stroke, or unplanned rehospitalisation for cardiovascular causes at one year.¹

The trial demonstrated that deferral of PCI was non-inferior to routine PCI before TAVI. The primary endpoint occurred in 16.2% of patients in the deferral group compared with 16.1% in the routine PCI group. The hazard ratio (HR) for the primary endpoint was 1.01 (95% CI 0.77-1.33), with a p-value for non-inferiority of . This result met the prespecified non-inferiority margin, which was set at a hazard ratio of 1.35. The non-inferiority margin was chosen to ensure that deferring PCI would not lead to a clinically meaningful increase in adverse events compared to routine PCI.¹

Regarding individual components of the primary endpoint, there were no statistically significant differences between the two groups. All-cause death occurred in 6.5% of the deferral group versus 6.3% in the routine PCI group. Myocardial infarction was observed in 3.1% versus 3.0%, and stroke in 2.2% versus 2.1%, respectively. Unplanned rehospitalisation for cardiovascular causes occurred in 7.8% of the deferral group and 7.9% of the routine PCI group. These findings suggest that the presence of stable CAD, when managed conservatively in the context of TAVI, does not significantly increase the risk of these major adverse cardiovascular and cerebrovascular events.¹

The trial's findings suggest that a strategy of deferring PCI in patients with coronary artery disease undergoing TAVI is a safe and effective approach, comparable to routine PCI. This outcome has implications for procedural planning and resource allocation in TAVI centres. By potentially reducing the number of PCI procedures, this strategy could lead to fewer periprocedural complications associated with PCI, reduced contrast exposure, and potentially shorter hospital stays. The open-label design is an inherent limitation, though the objective nature of the primary endpoint components mitigates some of this concern. While patients and investigators were aware of the treatment assignment, the endpoints of death, myocardial infarction, stroke, and rehospitalization are less susceptible to observer bias. Another limitation is the one-year follow-up duration; longer-term outcomes beyond one year would provide further valuable insights into the durability and safety of the deferral strategy. Furthermore, the trial did not specifically investigate the impact of CAD severity or anatomical complexity on the outcomes, which could be areas for future research. Further research may explore specific subgroups or longer-term outcomes, but the current data provide clear guidance for immediate clinical practice.¹

CLINICAL IMPLICATIONS

The PRO-TAVI trial delivers a straightforward message: routine PCI before TAVI for concomitant coronary artery disease is not necessary. This finding should prompt a re-evaluation of current practice patterns, particularly in centres where pre-TAVI PCI has been standard. Clinicians can now confidently consider deferring PCI, potentially simplifying the patient pathway, reducing procedural risks associated with a second intervention, and optimising resource utilisation in the cath lab. The data are sufficiently robust to inform immediate changes in clinical decision-making, moving away from a default 'fix everything' approach. From an industry perspective, this trial may influence the demand for coronary stents and related interventional devices in the TAVI population. While the overall number of TAVI procedures continues to rise, a reduction

in routine pre-TAVI PCI could lead to a modest shift in the market for coronary interventions. Device manufacturers might need to adapt their strategies, perhaps focusing more on complex PCI cases or other patient cohorts where intervention remains unequivocally beneficial. This is not a market disruption, but a refinement of indications.

For patients, the implications are largely positive. Avoiding an additional invasive procedure means less time in hospital, reduced exposure to contrast agents, and fewer periprocedural complications. This streamlined approach could enhance the overall patient experience and potentially improve recovery times. It underscores the importance of evidence-based medicine in refining treatment paradigms, ensuring that interventions are performed when truly indicated, rather than as a matter of routine.

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REFERENCES

1. Delewi R, Aarts HM, Broeze GM. Deferral of percutaneous coronary intervention in patients undergoing transcatheter aortic valve implantation (PRO-TAVI): an investigator-initiated, multicentre, open-label, non-inferiority, randomised controlled trial. Lancet. 2026.

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