

Transcatheter Aortic Valve Implantation Versus Surgical Aortic Valve Replacement in Low-Risk Patients: A Critical Appraisal of the DEDICATE Trial in the Context of Current Evidence

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ABSTRACT

The expansion of transcatheter aortic valve implantation (TAVI) to patients with severe aortic stenosis and low surgical risk represents a paradigm shift in cardiovascular medicine, yet it remains a subject of intense scrutiny. The DEDICATE-DZHK6 trial emerges as a pivotal, investigator-initiated, industry-independent, pragmatic randomized controlled trial designed to address the limitations of previous landmark studies. This comprehensive review critically appraises the DEDICATE trial, juxtaposing its findings and design against the established evidence from the PARTNER 3, Evolut Low Risk, NOTION, and UK TAVI trials. We dissect the methodological strengths of DEDICATE, including its pragmatic design, allowance for any contemporary device, and freedom from commercial funding, while also examining its limitations, such as the significant crossover rate and the potential confounding effects of the COVID-19 pandemic. The analysis extends to the profound implications for clinical practice and the latest 2025 ESC/EACTS guidelines, emphasizing the critical shift towards a Heart Team-based, lifetime management strategy. Finally, we propose essential future research directions, advocating for long-term durability data, focused subgroup analyses, and robust quality-of-life assessments to guide the optimal, individualized treatment of this growing patient population.

KEYWORDS: Aortic Stenosis; Transcatheter Aortic Valve Implantation (TAVI); Surgical Aortic Valve Replacement (SAVR); DEDICATE Trial; Low-Risk Patients; Evidence-Based Medicine; Heart Team.

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INTRODUCTION

The therapeutic landscape for managing severe, symptomatic aortic stenosis has been revolutionized since the advent of transcatheter aortic valve implantation. Initially a groundbreaking alternative for patients deemed inoperable or at prohibitive surgical risk, TAVI's indications have progressively expanded following a series of landmark randomized controlled trials that demonstrated its non-inferiority and, in some instances, superiority to surgical aortic valve replacement across progressively lower-risk cohorts. The culmination of this expansion has been the enrollment of patients at low surgical risk, a demographic traditionally

considered the purview of cardiac surgery. Pivotal trials such as PARTNER 3 and Evolut Low Risk provided the foundational evidence for this shift, yet they were not without inherent limitations, including industry sponsorship, the use of a single transcatheter heart valve platform, and relatively short follow-up periods. These constraints have fueled a critical need for pragmatic, independently funded, real-world evidence to guide clinical decision-making. The DEDICATE-DZHK6 trial was conceived to fill this evidence gap, offering a unique, all-comers perspective on the comparative effectiveness of TAVI and SAVR in a low- to intermediate-risk population. This review aims to provide a critical

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appraisal of the DEDICATE trial, situating its findings within the broader context of current evidence and exploring its profound implications for contemporary clinical practice guidelines, with a particular focus on the lifetime management paradigm for younger, low-risk patients.^{1,2,3}

SUMMARY OF THE DEDICATE TRIAL

The DEDICATE-DZHK6 trial, an investigator-initiated, prospective, multicenter, randomized controlled trial, was designed with the explicit goal of mirroring clinical reality . It randomized 1,414 patients aged 65 years or older with symptomatic, severe aortic stenosis and low to intermediate surgical risk in a 1:1 ratio to undergo either TAVI or SAVR . A defining and methodologically crucial feature was its pragmatic design, which permitted the use of any contemporary, commercially available device in both treatment arms, allowing the procedural strategy, including access route and valve choice, to be determined by the local Heart Team according to local best practice . This is in stark contrast to many previous trials that mandated a specific device, enhancing the generalizability of its results. The co-primary endpoints were the composite of all-cause mortality or stroke at 1 year and at 5 years, with the trial powered to test for non-inferiority and, if met, superiority . At one year, the trial met its primary endpoint, demonstrating the non-inferiority of TAVI compared to SAVR for the composite of all-cause death or stroke. The event rate for the primary outcome was 5.6% in the TAVI group versus 10.1% in the SAVR group in the as-treated population . Key secondary outcomes provided further granularity: TAVI was associated with significantly lower rates of new-onset atrial fibrillation and major bleeding, while SAVR demonstrated a lower incidence of permanent pacemaker implantation . These findings are consistent with the well-established periprocedural risk profiles of both interventions, where the less invasive nature of TAVI reduces trauma and bleeding, yet the proximity of the transcatheter valve to the conduction system increases the risk of high-grade atrioventricular block.^{1,2,3,4,5}

DEDICATE STUDY SUMMARY

The DEDICATE trial, formally designated as the German-Austrian Prospective Randomized Trial of Transcatheter Aortic Valve Implantation Versus Conventional Surgical Aortic Valve Replacement in Low and Intermediate Risk Patients, constitutes a seminal contribution to the cardiovascular literature, distinguished by a methodological architecture that simultaneously represents its greatest strengths and its most contentious limitations. Perhaps the most salient and commendable feature of the DEDICATE trial is its pragmatic design, which stands in stark contrast to the rigidly structured, highly selective frameworks of the industry-sponsored pivotal trials that preceded it. The DEDICATE investigators, funded by the German Center for

Cardiovascular Research and the German Heart Foundation, deliberately eschewed the restrictive, device-specific protocols that characterized the PARTNER 3 and Evolut Low Risk trials, opting instead for an all-comers approach that permitted operators unrestricted freedom in selecting any commercially available transcatheter heart valve system, choosing the vascular access route, and determining the periprocedural antithrombotic regimen and anesthetic strategy according to local institutional best practices . This methodological flexibility, a hallmark of pragmatic effectiveness trials, was explicitly designed to enhance external validity and ensure that the trial's findings would be directly generalizable to the heterogeneous, real-world clinical settings in which therapeutic decisions for severe aortic stenosis are routinely made, thereby addressing a critical evidence gap that had emerged from the highly controlled, explanatory efficacy trials that previously dominated the evidence base . The pragmatic ethos of the trial was further reinforced by its broad inclusion criteria, which allowed for the enrollment of patients younger than 75 years of age, thereby reflecting contemporary clinical practice in Germany and Austria, where TAVI is increasingly considered in younger, lower-risk cohorts, and by its nested registry component, which sought to capture comprehensive data on all-comers patients who were eligible but not randomized, thereby providing a crucial context for interpreting the generalizability of the randomized results . However, the pragmatic design, while laudable for its external validity, introduces inherent trade-offs that complicate the interpretation of the trial's findings. The unrestricted device selection and procedural variability, while reflective of real-world practice, introduce substantial heterogeneity that may confound the direct attribution of observed outcome differences to the therapeutic strategy itself, as opposed to center-specific expertise, device performance characteristics, or periprocedural management variations .^{6,7,8}

The absence of industry funding represents a second, profoundly significant strength of the DEDICATE trial, affording it a degree of impartiality and credibility that has been persistently questioned in the context of the device-specific, industry-sponsored low-risk TAVI trials. By securing public funding from the German Center for Cardiovascular Research and the German Heart Foundation, the investigators achieved a level of investigator independence that is rare in the contemporary landscape of cardiovascular device trials, thereby mitigating the potential for commercial bias in the design, conduct, analysis, and interpretation of the study . This independence is particularly valuable in the context of low-risk TAVI, where the financial incentives for expanding the procedure's indications to younger, lower-risk patients are substantial, and where previous trials have been criticized for potential overstatement of benefits or understatement of risks to favor the device manufacturer. Nevertheless, a nuanced appraisal of the DEDICATE trial must acknowledge that even

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in the absence of direct industry sponsorship, the extensive and often pervasive conflicts of interest disclosed by the trial authors, including institutional research grants and personal consulting fees from numerous transcatheter valve manufacturers, raise legitimate concerns regarding potential residual bias, suggesting that the trial may have garnered the support of most transcatheter industry representatives through indirect mechanisms, rather than achieving complete freedom from industry influence. This subtle yet important distinction underscores the challenge of conducting truly independent research in a field where the lines between academic investigation and commercial interests are frequently blurred, and it suggests that while the DEDICATE trial represents a significant advance in methodological rigor, it is not immune to the broader influence of the biomedical industry on clinical research.^{8,9,10}

The crossover phenomenon, a critical and often underappreciated limitation of the DEDICATE trial, introduces substantial methodological complexities that fundamentally challenge the validity of the primary intention-to-treat analysis. A total of 100 patients, representing a striking seventh of the entire surgical cohort, were not treated as initially randomized and instead underwent TAVI, whereas only 18 patients in the TAVI group crossed over to surgery, creating a profound and asymmetric imbalance that complicates the interpretation of the intention-to-treat results. This high rate of crossover from the surgical arm to the TAVI arm, which far exceeds the crossover rates observed in previous low-risk trials, suggests that the local Heart Teams, the trial's operators, or the patients themselves exhibited a strong and systematic preference for the transcatheter approach, potentially reflecting the perceived benefits of TAVI, the pragmatic, all-comers nature of the study, or even subtle biases within the enrolling sites. The most direct consequence of this crossover is that the intention-to-treat analysis, which is conventionally considered the gold standard for randomized trials and which was the basis for the primary non-inferiority and superiority analyses published in the *New England Journal of Medicine*, may substantially underestimate the true treatment effect of TAVI and overestimate the performance of surgery, because a significant proportion of the patients randomized to surgery actually received the experimental therapy, thereby diluting the comparison and potentially biasing the results in favor of TAVI. While the investigators attempted to address this concern through a per-treatment analysis, which is more appropriately aligned with the actual therapeutic exposure, the supplementary materials reveal that the per-treatment analysis is not accompanied by a detailed presentation of the baseline characteristics of patients who crossed over versus those who received their assigned treatment, raising the distinct possibility that the crossover groups were systematically different in ways that could confound the results. The critical question of whether the patients who crossed over to TAVI were younger, less frail, or

had different anatomical characteristics that made them better candidates for the transcatheter approach remains unanswered, and this uncertainty represents a fundamental threat to the robustness and validity of the DEDICATE trial's conclusions. The impact of the COVID-19 pandemic, an external and unprecedented global health crisis, introduced additional, unanticipated confounding factors that must be carefully considered in the critical appraisal of the DEDICATE trial's results. The pandemic's emergence during the trial's conduct likely affected patient enrollment, follow-up adherence, and perhaps most importantly, the occurrence of non-cardiovascular mortality, which was notably higher in the surgical group and included a substantial number of deaths from COVID-19, sepsis, and cancer, events that may have been more prevalent due to the heightened susceptibility and strain on healthcare systems during the pandemic. The surgical group's 30-day mortality of 1.5% and one-year mortality of 10.1%, which are significantly higher than the rates observed in the PARTNER 3 and Evolut Low Risk trials, may in part reflect the pandemic's impact on surgical patients, who likely experienced longer hospitalizations, delayed post-operative rehabilitation, and increased exposure to nosocomial infections, including COVID-19, during a time when healthcare resources were severely strained. Conversely, the TAVI group's shorter hospital stays and more rapid recovery may have conferred an unexpected advantage during the pandemic, by reducing the risk of hospital-acquired infections and facilitating earlier discharge to home, thereby minimizing the potential for pandemic-related morbidity and mortality. The differential impact of the pandemic on the two treatment arms, which was not a prespecified subgroup analysis and cannot be fully accounted for in the statistical models, represents a significant source of confounding that complicates the interpretation of the trial's primary endpoint, raising the question of whether the observed superiority of TAVI at one year would be as pronounced in the absence of the pandemic's unique challenges. Furthermore, the pandemic's disruption of routine healthcare services, including the postponement of elective surgeries and the reassignment of surgical resources to manage critically ill COVID-19 patients, may have created a selection bias, favoring the enrollment of patients who were more suitable for TAVI and potentially influencing the Heart Team's decision-making and the patient's willingness to consent to the trial.^{9,10,11,12,13}

The DEDICATE trial, while a landmark achievement in the field of structural heart disease, embodies a complex interplay of methodological strengths and limitations that demand a nuanced and critical appraisal. Its pragmatic design, industry-independent funding, and commitment to long-term follow-up represent significant advances that enhance the generalizability and credibility of its findings. However, the substantial crossover from surgery to TAVI, the potential for residual bias from extensive author conflicts of interest, and the confounding influence of the COVID-19 pandemic

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introduce critical limitations that temper the enthusiasm for its results and underscore the enduring importance of the Heart Team approach in guiding individualized therapeutic decisions for low-risk patients with severe aortic stenosis. The DEDICATE trial ultimately serves not as a definitive resolution of the TAVI versus SAVR debate, but as a catalyst for further investigation and reflection, reinforcing the necessity for standardized definitions of low-risk patients, improved risk stratification tools, and, most critically, the meticulous long-term follow-up, including the prespecified 5-year outcomes and health-economic analyses, which will provide the definitive evidence needed to inform clinical practice and healthcare policy in this rapidly evolving field.^{14,15}

CLINICAL IMPLICATIONS

The clinical implications of the DEDICATE trial, when critically appraised against the robust foundation of contemporary evidence, are far-reaching and fundamentally challenge the traditional paradigms for managing low-risk patients with severe aortic stenosis, prompting a necessary recalibration of both clinical practice and the prevailing framework of international guideline recommendations. The trial's pragmatic, all-comers design and its demonstration of a significant early survival and stroke reduction benefit with transcatheter aortic valve implantation necessitates a profound shift in the clinical equipoise that has long characterized decision-making for this demographic, moving the conversation beyond mere non-inferiority to a nuanced appreciation of differential treatment effects that are highly dependent on patient-specific characteristics and the lifetime management horizon. The meticulous refinement of procedural recommendations in the 2025 ESC/EACTS Guidelines for the Management of Valvular Heart Disease, which now advocate for TAVI in patients aged 70 years or older and SAVR as the standard for those under 70 with low surgical risk, represents a direct and tangible incorporation of the cumulative evidence from trials like PARTNER 3, Evolut Low Risk, and NOTION, a framework within which the DEDICATE trial provides a powerful real-world validation of the age-based stratification paradigm, demonstrating that the transcatheter approach can offer a meaningful early advantage even in a less selected, more heterogeneous population that closely mirrors the daily reality of clinical cardiology and cardiac surgery practice. This clear age-driven bifurcation in the guidelines underscores a growing consensus that the fundamental determinant of optimal valve selection is not simply the procedural risk profile, but the anticipated longevity and the imperative of strategic lifetime planning, where the trade-offs between the reduced periprocedural morbidity of TAVI and the established, albeit more invasive, durability of surgical bioprostheses must be weighed with meticulous care and a patient-centric focus. The DEDICATE trial's results, which highlighted a

significantly higher permanent pacemaker implantation rate in the TAVI cohort, a finding consistently observed in prior self-expanding valve trials, serves as a potent reminder that the decision is not unidirectional, and that for younger patients with a long life expectancy, the potential for future valve-in-valve procedures, the risk of coronary obstruction, and the implications of prosthetic-patient mismatch are critical considerations that the Heart Team must judiciously evaluate, reinforcing the guideline's strong emphasis on a comprehensive anatomical and procedural assessment that extends well beyond the immediate postoperative period. Furthermore, the DEDICATE trial's robust design and its inclusion of a prespecified health economic analysis are poised to provide the crucial data that will inform cost-effectiveness models, particularly within public healthcare systems such as the United Kingdom's National Health Service, where the higher upfront costs of TAVI must be justified by demonstrable reductions in length of hospital stay, rehabilitation needs, and rehospitalization rates, a dimension that the UK TAVI trial has already begun to explore and which the DEDICATE trial will further illuminate, thereby providing a comprehensive evidence base that is as economically grounded as it is clinically rigorous. The updated guidelines also reflect a broader trend toward earlier intervention in the disease trajectory, endorsing treatment for asymptomatic patients with severe high-gradient aortic stenosis and preserved left ventricular ejection fraction when procedural risk is low, a recommendation that is supported by the favorable safety profile and rapid recovery associated with TAVI as demonstrated in the DEDICATE trial, and which calls for a proactive, rather than a watchful waiting, strategy in appropriately selected individuals. The critical appraisal of the DEDICATE trial thus ultimately compels clinicians to abandon a one-size-fits-all approach and to fully embrace the multidisciplinary Heart Team model as the indispensable cornerstone of clinical practice, ensuring that each patient's unique anatomical features, frailty, comorbidities, and personal preferences are meticulously integrated into a shared decision-making process that acknowledges the profound implications of this choice for their immediate recovery and their long-term cardiovascular health, thereby transforming the evidence from a statistical finding into a tangible and deeply personalized therapeutic strategy. The extensive follow-up of the DEDICATE trial, with its co-primary endpoint of stroke or mortality at 5 years, will be of paramount importance in substantiating the long-term durability and sustained clinical efficacy of contemporary transcatheter valves in a low-risk, all-comers population, addressing the lingering uncertainties regarding structural valve deterioration and late clinical events that are essential for the guidelines to evolve from age-based heuristics to a more sophisticated, predictive, and individualized model of care, cementing the legacy of this

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landmark trial in shaping the future of aortic valve disease management.^{14,15,16,17,18}

FURTHER RESEARCH

The DEDICATE trial, while providing a robust and contemporary framework for comparing transcatheter and surgical aortic valve replacement in a low to intermediate-risk population, simultaneously illuminates several critical lacunae in our current understanding, thereby charting a clear and compelling course for future investigative endeavors. The most immediate and arguably the most crucial of these research priorities is the extension of longitudinal surveillance beyond the pre-specified 5-year primary efficacy endpoint, as the true equipoise between TAVI and SAVR in younger, lower-risk patients is contingent upon the long-term durability of transcatheter heart valves and the cumulative incidence of late clinical events that may not manifest within a mid-term horizon. The protracted follow-up from the NOTION trial, extending to a decade, serves as a potent reminder that while early advantages in periprocedural morbidity may favor the transcatheter approach, these benefits do not necessarily translate into a durable survival advantage, and the emergence of structural valve deterioration, bioprosthetic valve failure, and the need for reintervention over a 10 to 15-year period are pivotal determinants of the ultimate risk-benefit calculus. Future research must therefore prioritize the systematic collection of echocardiographic and clinical data over extended periods, employing standardized definitions for prosthetic valve dysfunction and failure as advocated by the Valve Academic Research Consortium, to ascertain whether the hemodynamic performance of contemporary transcatheter bioprostheses, particularly with respect to the incidence of moderate or severe paravalvular regurgitation and the progression of transvalvular gradients, translates into clinically meaningful differences in long-term survival, functional capacity, and the need for redo procedures compared to surgically implanted valves. Furthermore, the nuanced interplay between valve type and patient-specific anatomical and clinical factors underscores the imperative for dedicated subgroup analyses that move beyond simple demographic stratification to explore differential treatment effects across the heterogeneous spectrum of low-risk patients. The DEDICATE trial's pragmatic design, which permitted the use of any commercially available transcatheter heart valve system, provides a unique opportunity to conduct comparative effectiveness analyses between balloon-expandable and self-expanding devices, as the latter have been consistently associated with a higher incidence of permanent pacemaker implantation, a complication with its own long-term sequelae including heart failure hospitalizations and increased all-cause mortality, while potentially offering advantages in terms of a lower rate of patient-prosthesis mismatch and a more favorable

hemodynamic profile in smaller annuli. Similarly, the trial's inclusion of patients with bicuspid aortic valve morphology, a cohort notably underrepresented in the pivotal low-risk trials, demands rigorous investigation, as the elliptical shape, heavy calcification, and asymmetric leaflet fusion characteristic of bicuspid valves may predispose to paravalvular regurgitation, annular rupture, and coronary obstruction, thereby potentially modulating the relative safety and efficacy of TAVI versus SAVR in this specific anatomical context.^{17,18,19}

The potential for sex-specific differences in outcomes also warrants thorough examination, as prior post-hoc analyses of intermediate-risk trials have suggested that females may derive a more pronounced functional benefit from TAVI, potentially related to their smaller body surface area and more favorable annular geometry, but may also face a higher risk of vascular complications, necessitating a granular assessment of baseline characteristics, procedural variables, and clinical outcomes stratified by sex to inform individualized treatment algorithms. Beyond the realm of hard clinical endpoints, future investigations must expand the scope of patient-centered outcomes, with a particular emphasis on the longitudinal trajectory of health-related quality of life, cognitive function, and mental health, as the perceived benefits of a less invasive approach may extend beyond mortality and stroke reduction to encompass a faster return to baseline functional status, a lower incidence of postoperative delirium, and superior preservation of cognitive domains, all of which are of paramount importance to an aging, yet functionally active, patient population. The ongoing cognitive substudy of the DEDICATE trial, employing a comprehensive neuropsychological test battery and brain magnetic resonance imaging, represents a vanguard initiative, yet its findings must be corroborated and extended across the broader trial cohort, with serial assessments at multiple time points to capture the dynamic nature of cognitive recovery and the potential for late neurocognitive decline, which may be influenced by factors such as cerebral embolic protection, perioperative hemodynamic perturbations, and the inflammatory response to cardiopulmonary bypass.^{18,19}

The substantial crossover rate observed in the DEDICATE trial, particularly from SAVR to TAVI, which exceeded 9%, not only reflects the potent influence of patient and physician preference in the contemporary era but also complicates the interpretation of intention-to-treat analyses and underscores the need for sophisticated statistical methodologies, such as instrumental variable analysis and per-protocol sensitivity analyses, to estimate the true causal effect of the treatment received, while also emphasizing the importance of qualitative research to explore the drivers of treatment choice and the shared decision-making process from the perspectives of both patients and clinicians. Finally, the inherent variability in the definition of low risk across major trials,

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with the DEDICATE trial employing a more stringent STS-PROM threshold of 2% or less for low risk compared to the more liberal thresholds used in PARTNER 3 and Evolut Low Risk, mandates a collaborative effort to establish a universally accepted, standardized definition of low operative risk that integrates not only the STS-PROM score but also a comprehensive assessment of frailty, cognitive impairment, mobility, and nutritional status, thereby ensuring the comparability of future trial results and the generalizability of findings to the diverse populations encountered in everyday clinical practice. Ultimately, the DEDICATE trial has laid a formidable foundation upon which a multi-layered research agenda can be constructed, an agenda that extends from the molecular mechanisms of valve degeneration to the practical realities of healthcare delivery, ensuring that the therapeutic armamentarium for severe aortic stenosis is wielded with precision, guided by evidence, and tailored to the unique characteristics and preferences of each individual patient.^{18,19,20,21}

CONCLUSION

The cumulative body of evidence amassed over the past decade, now further solidified by the pragmatic, investigator-initiated DEDICATE trial, compels a fundamental reappraisal of the therapeutic paradigm for severe symptomatic aortic stenosis in low and intermediate-risk patients. The foundational low-risk trials, namely PARTNER 3 and Evolut Low Risk, irrefutably established the non-inferiority of TAVI to SAVR in highly selected populations, demonstrating a favorable short-term safety profile characterized by a significant reduction in periprocedural morbidity including major bleeding, acute kidney injury, and new-onset atrial fibrillation, albeit at the expense of a persistently elevated incidence of permanent pacemaker implantation and paravalvular regurgitation. However, the extension of these observations through mid-term follow-up, as recently elucidated in a critical reappraisal of these very trials published in the *Journal of the American College of Cardiology*, has revealed a striking attenuation of the initial TAVI advantage for the composite endpoint of death or disabling stroke, suggesting that the short-term procedural benefits, while clinically meaningful, may not necessarily translate into a sustained superiority over the long term. This phenomenon underscores the critical importance of longitudinal surveillance, as the excellent outcomes observed in the early phases of these studies may be partially attributable to the highly selective enrollment criteria, a limitation that the DEDICATE trial, with its all-comers design and permissive use of any commercially available transcatheter heart valve system, was specifically designed to address.

The DEDICATE trial, therefore, serves as a seminal contribution not merely as a confirmatory study but as a methodological benchmark that grounds the evidence more firmly in the reality of heterogeneous clinical practice,

substantiating the non-inferiority of TAVI with a level of external validity that its industry-sponsored predecessors could not fully achieve. By demonstrating that the benefits observed in controlled environments are reproducible in a broader patient cohort with contemporary devices and flexible procedural strategies, DEDICATE reinforces the verdict that TAVI is a viable and, in many respects, advantageous alternative to surgery for this demographic. Yet, this very conclusion sharpens the clinical equipoise, shifting the central question from a binary choice between technologies to a nuanced deliberation on lifetime patient management. Contemporary meta-analyses, including an individual participant data meta-analysis of investigator-initiated trials published in *JAMA Cardiology*, have reinforced that TAVI is associated with a reduction in the one-year incidence of all-cause death or stroke, yet they simultaneously highlight that the sustainability of this benefit and the critical issue of long-term valve durability remain areas of active investigation, particularly as we consider the implications for younger, low-risk patients who may outlive the structural integrity of their bioprosthesis.

The debate is therefore no longer centered on whether TAVI is a suitable option for low-risk patients, a question that has been unequivocally answered in the affirmative, but rather on the strategic orchestration of a lifetime management plan that prioritizes patient-specific factors, anatomical considerations, and the anticipated need for future reinterventions. This is particularly pertinent given the challenges posed by bicuspid aortic valve morphology, patient-prosthesis mismatch, and the potential for future coronary reaccess, all of which may favor a "SAVR-first" strategy in selected individuals to preserve procedural flexibility and mitigate the long-term risk of structural valve deterioration, as argued in the latest guidelines and reviews. The DEDICATE trial, with its prespecified long-term follow-up extending to five and ten years, is uniquely positioned to provide the definitive data on these crucial endpoints, offering the robust, granular evidence needed to inform not only clinical decision-making but also the complex health economic considerations that will shape healthcare policy. In this evolving landscape, the role of the Heart Team is paramount, requiring a synthesis of the aggregate evidence from all pivotal trials, a meticulous evaluation of individual patient risk and anatomy, and an informed, shared decision-making process that balances the incontrovertible early recovery advantages of TAVI against the proven durability and lower reintervention risk of surgery, ultimately guiding a personalized therapeutic strategy that is as dynamic and multifaceted as the patients it seeks to serve.

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