

# *Comparative Outcomes of Myval Versus Contemporary Transcatheter Heart Valves: A Meta-Analysis of Randomized Controlled Trials and Propensity Score-Matched Studies*

Paulo Tartuce, MD

*Robert Alcântara, MD, Vinícius Oliveira, Ludimilla Tartuce, MD, MSc, Paulo Tartuce, MD*



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# Disclosure of Relevant Financial Relationships

I, [Paulo Tartuce](#), DO NOT have any financial relationships to disclose.

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Author's affiliations

AURUS



[Paulo Tartuce, MD](#)

Instituto de Cardiologia e Radiologia  
Intervencionista de Rio Verde (ICRI)

# Background

- Aortic stenosis remains a major cause of morbidity and mortality
- TAVR has transformed management in high and intermediate-risk patients
- Continuous device evolution aims to improve outcomes and reduce complications

# Background

- Myval is a balloon-expandable valve for TAVI
- Limited comparative data with other transcatheter valves

# Landmark

## **LANDMARK comparison of early outcomes of newer-generation Myval transcatheter heart valve series with contemporary valves (Sapien and Evolut) in real-world individuals with severe symptomatic native aortic stenosis: a randomised non-inferiority trial**

*Andreas Baumbach, Niels van Royen, Ignacio J Amat-Santos, Martin Hudec, Matjaz Bunc, Alexander Ijsselmuiden, Peep Laanmets, Daniel Unic, Bela Merkely, Rencus S Hermanides, Vlas Ninos, Marcin Protasiewicz, Benno J W M Rensing, Pedro L Martin, Fausto Feres, Manuel De Sousa Almeida, Eric van Belle, Axel Linke, Alfonso Ielasi, Matteo Montorfano, Mark Webster, Konstantinos Toutouzas, Emmanuel Teiger, Francesco Bedogni, Michiel Voskuil, Manuel Pan, Oskar Angerås, Won-Keun Kim, Jürgen Rothe, Ivica Kristić, Vicente Peral, Scot Garg, Hesham Elzomor, Akihiro Tobe, Marie-Claude Morice, Yoshinobu Onuma, Osama Soliman, Patrick W Serruys, on behalf of the LANDMARK trial investigators\**

Baumbach et al., 2024

# Background

## **SAPIEN 3 versus Myval transcatheter heart valves for transcatheter aortic valve implantation (COMPARE-TAVI 1): a multicentre, randomised, non-inferiority trial**

*Christian Juhl Terkelsen, Philip Freeman, Jordi Sanchez Dahl, Troels Thim, Bjarne Linde Nørgaard, Nils Sofus Borg Mogensen, Mariann Tang, Ashkan Eftekhari, Jonas Agerlund Povlsen, Steen Hvitfeldt Poulsen, Lars Pedersen, Jakob Hjort, Julia Ellert, Evald Høj Christiansen, Henrik Toft Sørensen, Henrik Nissen*

Baumbach et al., 2025

# Methods

## *Literature search*



## *Statistical analysis*



## *Myval x Contemporary Heart Valves*

# Results

- 5 RCTs and PSM studies comprising 2,421 patients
- 1,169 (48%) were treated with Myval

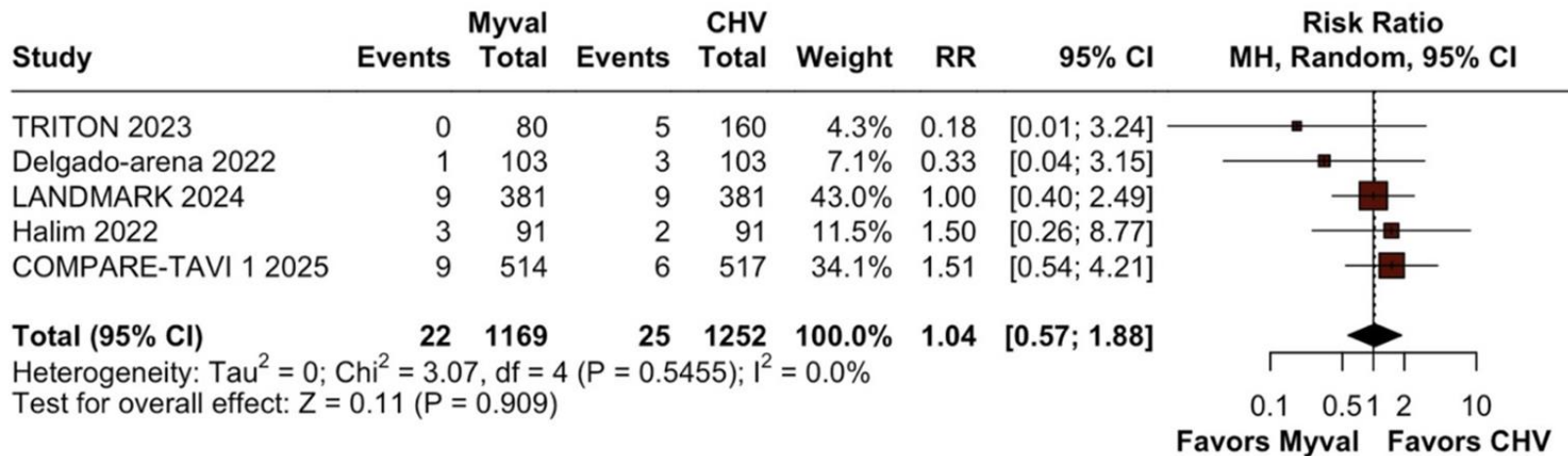
Endpoints:

- 30-day and 1-year mortality
- Stroke
- Moderate or severe aortic regurgitation
- Permanent pacemaker implantation
- Procedural success



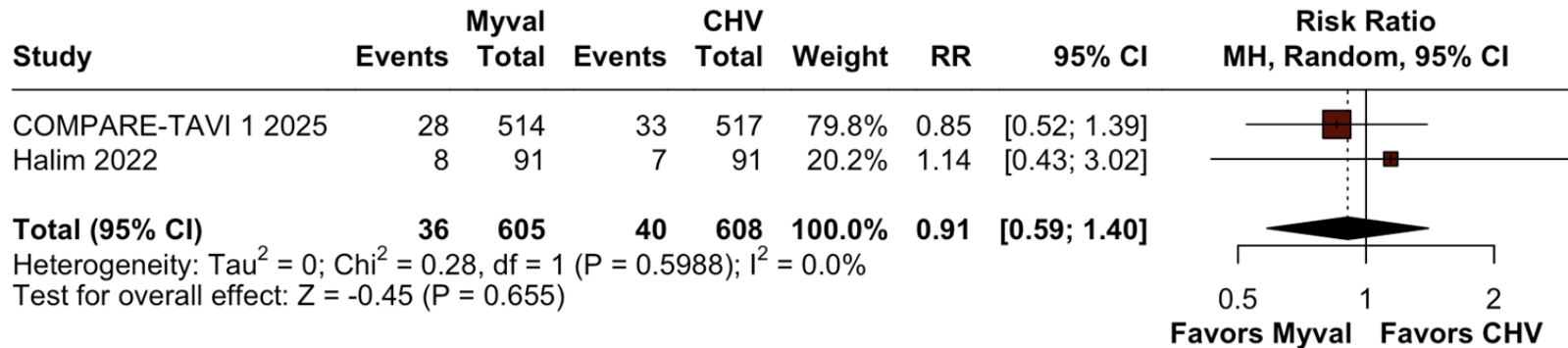
# Results

## 30-day all-cause death



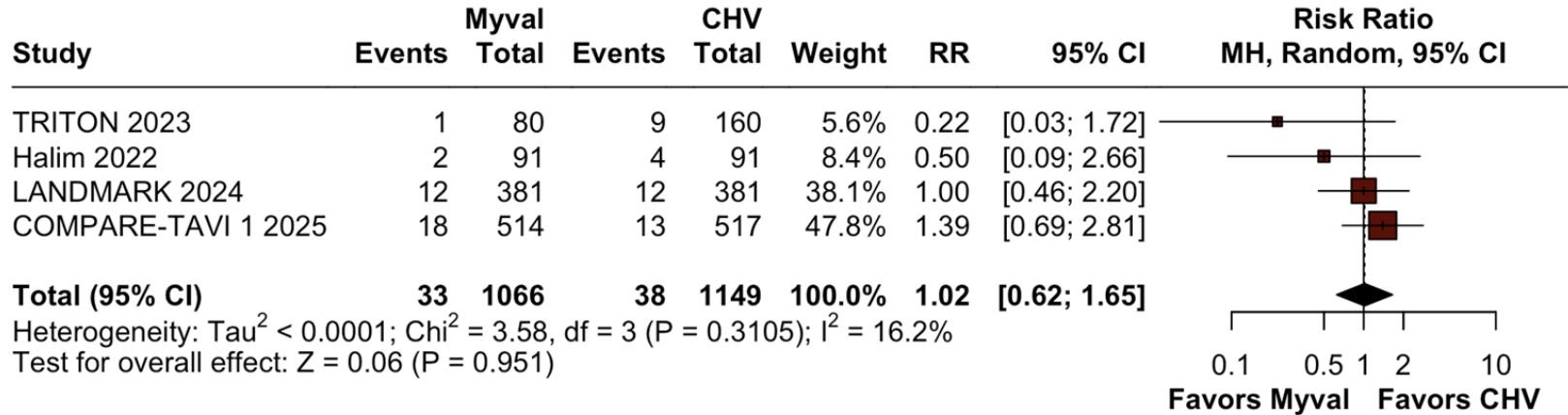
# Results

## 1-year mortality



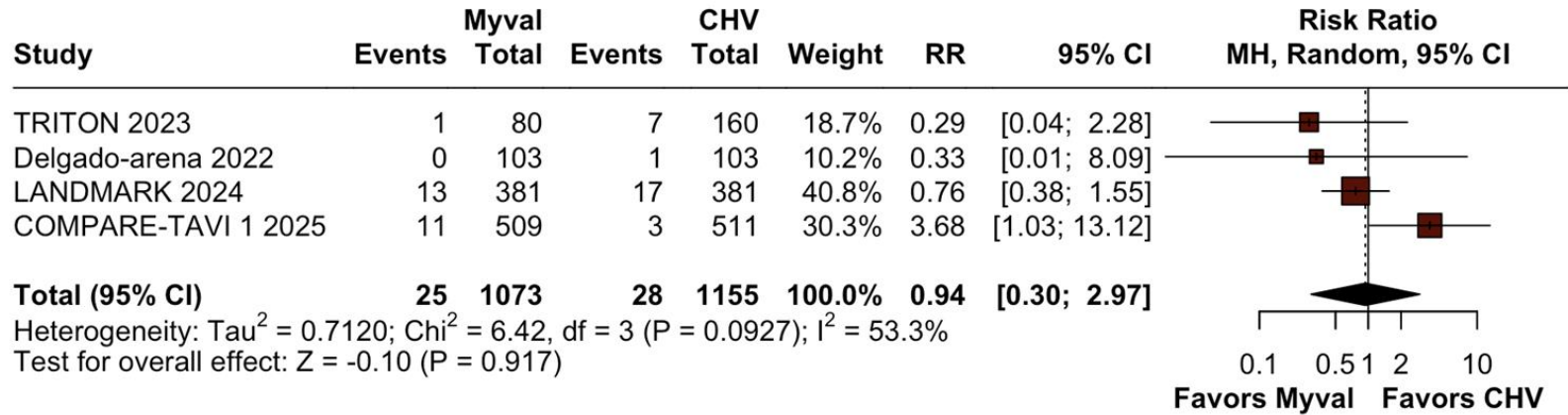
# Results

## Stroke



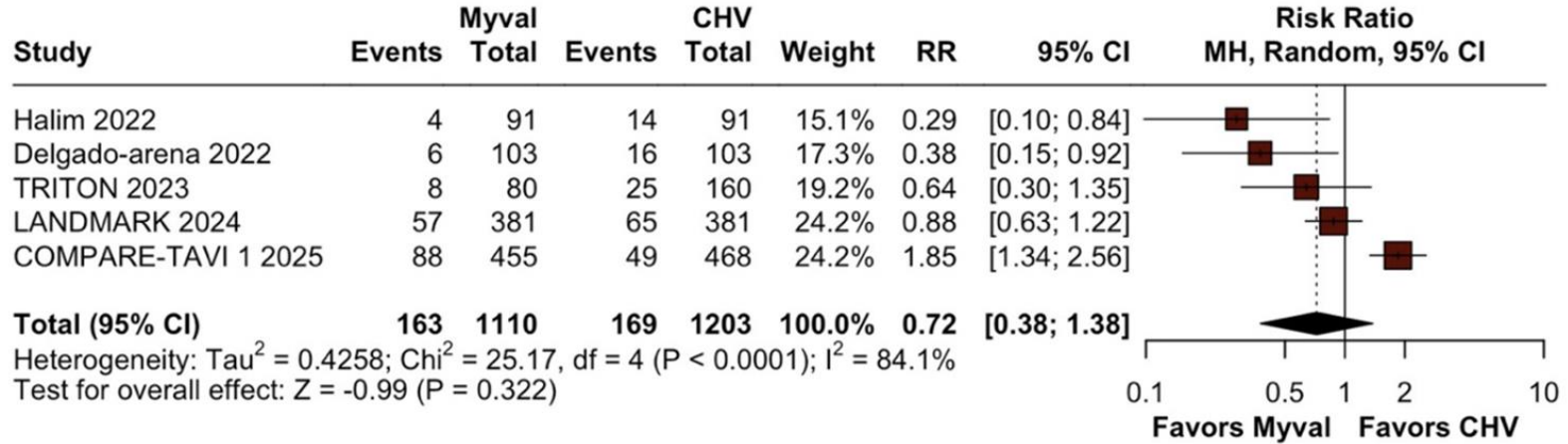
# Results

## *Moderate/severe aortic regurgitation*



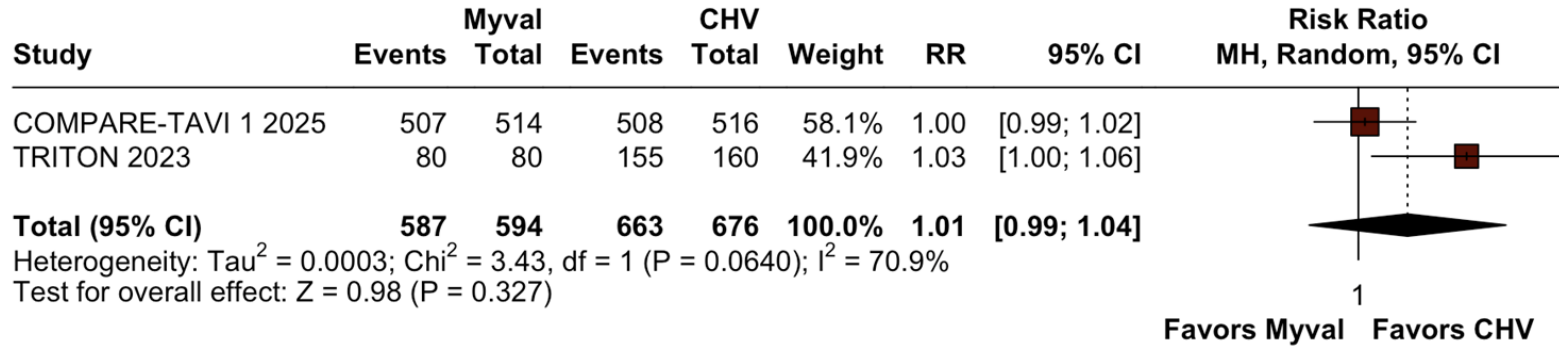
# Results

## *Permanent pacemaker implantation*



# Results

## *Procedural success*



# Limitations

- The observational design of most of the included studies constrains the evaluation of endpoints without the influence of confounding factors
- Variability in follow-up durations across the studies introduced heterogeneity

# Take Home Message

- Meta-analysis of 5 studies / 2,421 patients comparing Myval vs. contemporary Heart Valves
- No significant differences in mortality, stroke, AR, pacemaker implantation, or procedural success
- These findings demonstrated that Myval offers a similar safety and efficacy profile, supporting its role as a reliable option in contemporary TAVR practice.