

# *Debate: 3 Reasons why TAVR is the Best Option for this Patient*

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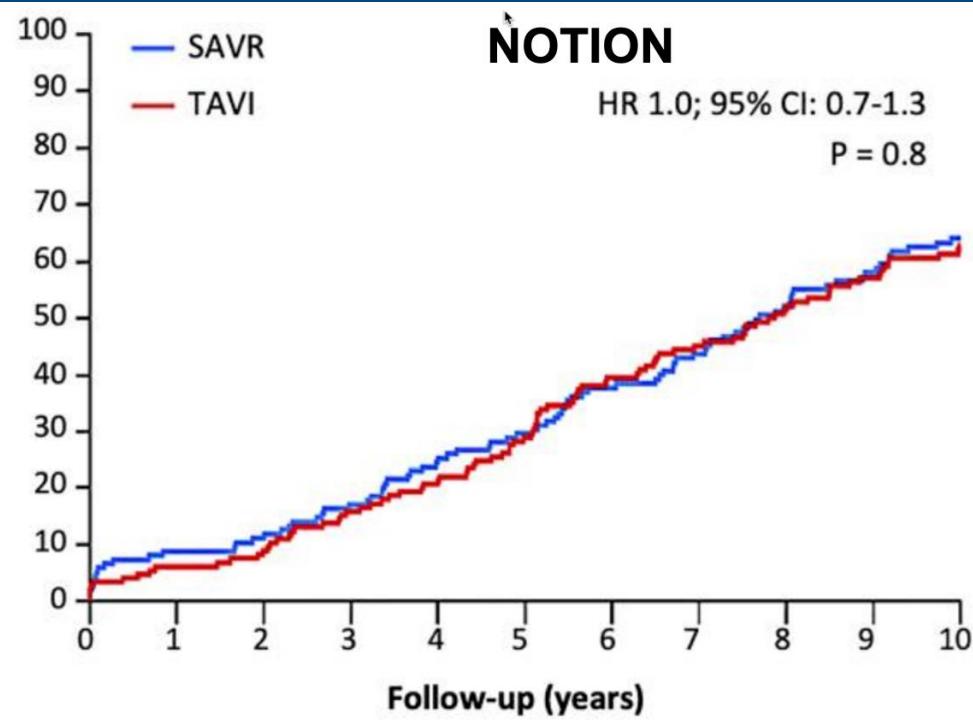
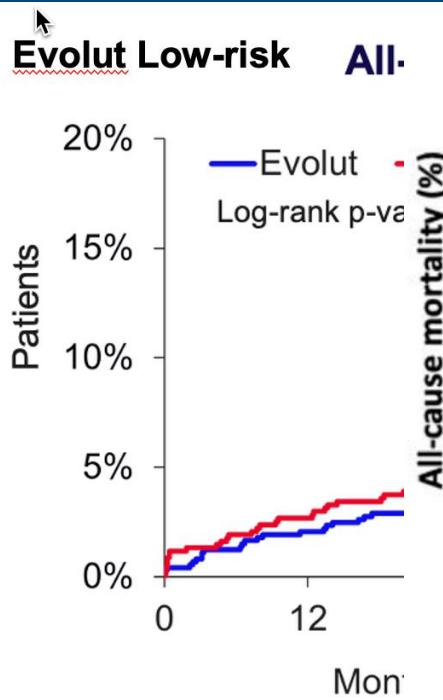
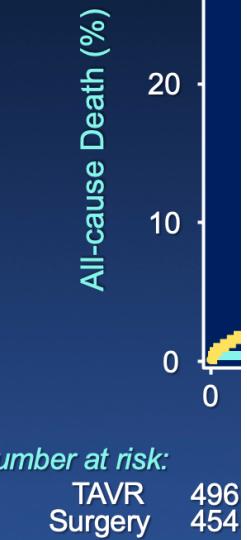
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## Ineligible Company

Medtronic, Boston Scientific, Abbott Medical, Edwards Life Sciences, Gore Medical

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Patients at risk

	TAVI	145	136	132	122	115	101	86	78	75	69	64	61	53
	SAVR	135	123	120	112	102	95	83	75	75	64	56	48	

#### **Transcatheter vs. surgical aortic valve replacement in women: the RHEIA trial**

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Frank de Bruyne <sup>16</sup>, Lionel Vuilleumier <sup>17</sup>, Jacques Tomasi <sup>18</sup>, Lukas Stastna <sup>19</sup>,  
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Thomas Gaudet <sup>22</sup>, Jean-Pierre Dubois <sup>23</sup>, Karola Trescher <sup>24</sup>,  
Bernard Prendergast <sup>25</sup>, Massimo Cicali <sup>26</sup>, Alain Chito <sup>27</sup>, Jan M. Wilbers <sup>28</sup>, Wesselink <sup>29</sup>, Radka Rakicova <sup>30</sup>, Jan Kurszynski <sup>31</sup>, Peter Bramlage <sup>32</sup>,  
Helene Elichman <sup>33</sup>, for the RHEIA Investigators.

Received 2 August 2014; revised 11 October 2014; accepted 18 February 2015; online publication 2 April 2015  
See the editorial comment for this article 'Clinical implications of sex-related differences in severe aortic stenosis', by K.P. Patel and A. Baumbach, <https://doi.org/10.1093/eurheartj/eua199>.

## Abstract

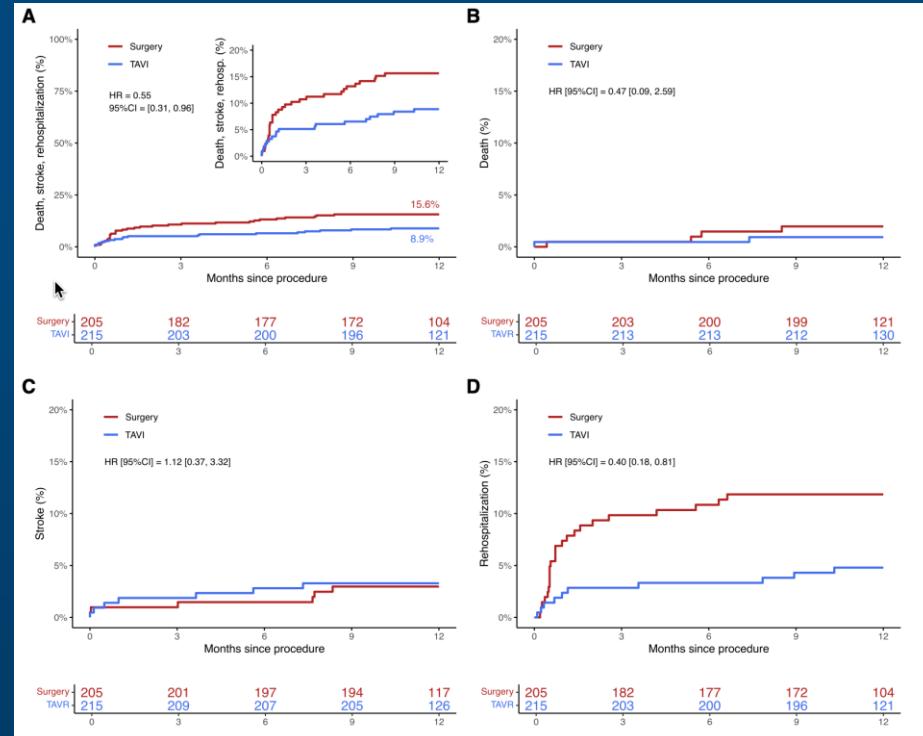
Background  
Aims

**Background and Aims** Although women with severe symptomatic aortic valve replacement, they are under-represented in clinical trials. The Randomized research in women at centers with Aortic stenosis (RHEA) trial investigates the balance of benefits and risks of transcatheter aortic valve replacement (TAVI) vs. surgery in women.

**Methods** Women were randomized 1:1 to transfemoral TAVI with a balloon-expandable valve or surgery. The primary composite outcome was death, re-hospitalization or heart failure related rehospitalization at 1 year. Non-inferiority testing was based on a 10% difference in the primary composite outcome.

## Method

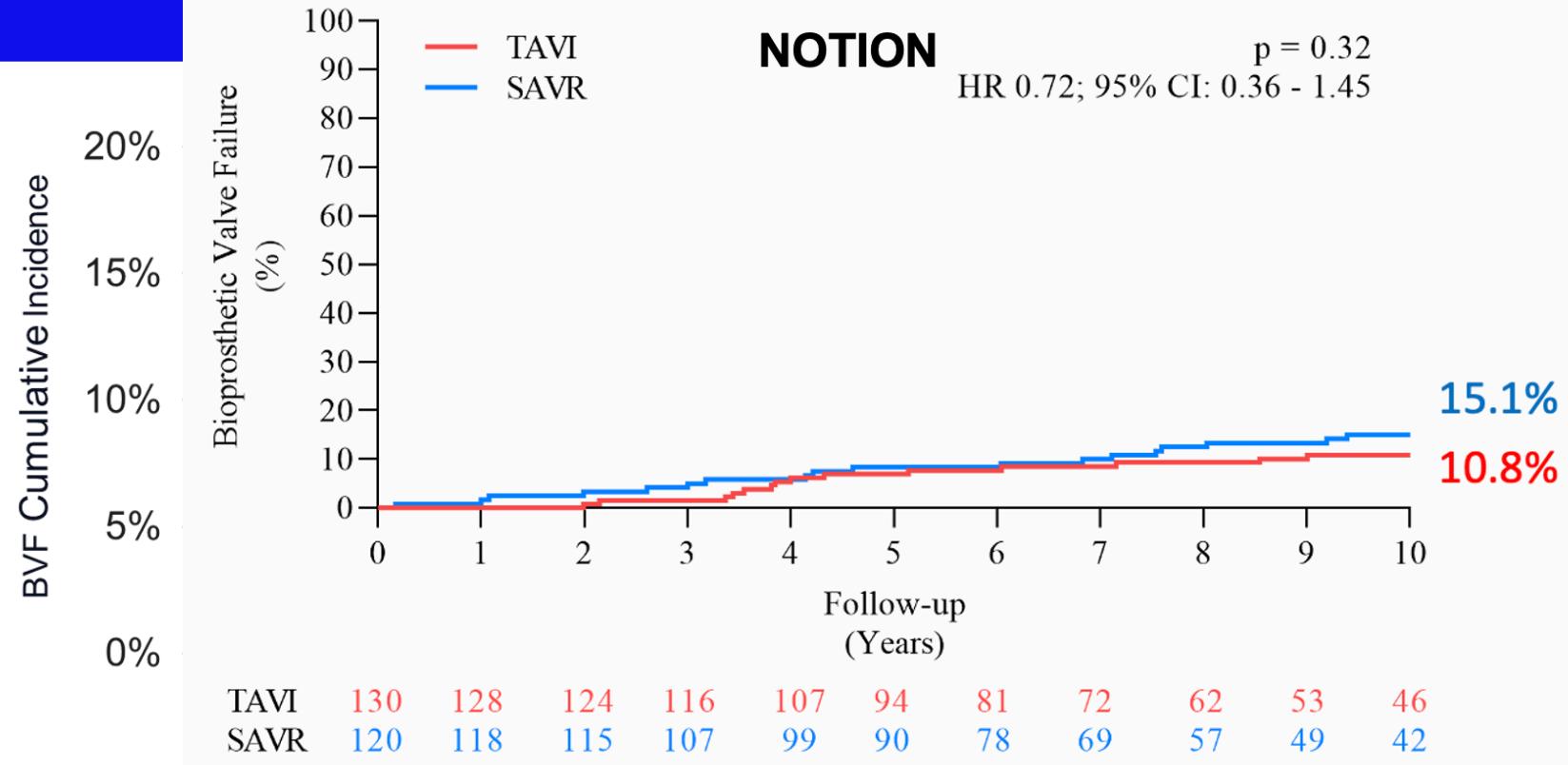
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**Tchetché D, Pibarot P, Bax JJ, Bonaros N, Windecker S, Dumonteil N, Nietlispach F, Messika-Zeitoun D, Pocock SJ, Berthoumieu P, Swaans MJ, Timmers L, Rudolph TK, Bleiziffer S, Leroux L, Modine T, van der Kley F, Auffret V, Tomasi J, Stastny L, Hengstenberg C, Andreas M, Leclercq F, Gandet T, Mascherbauer J, Trescher K, Prendergast B, Vasa-Nicotera M, Chieffo A, Mares J, Wesselink W, Rakova R, Kurucova J, Bramlage P, Eltchaninoff H. , Transcatheter vs. surgical aortic valve replacement in women: the RHEIA trial. Eur Heart J. 2025 Jun 9;46(22):2079-2088. doi: 10.1093/eurheartj/ehaf133.**



TCT



## Life Expectancy After Surgical Aortic Valve Replacement



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### ABSTRACT

**BACKGROUND** Surgical risk, age, perceived life expectancy, and valve durability influence the choice between surgical aortic valve replacement (SAVR) and transcatheter aortic valve implantation. The contemporary life expectancy after SAVR, in relation to surgical risk and age, is unknown.

**OBJECTIVES** The purpose of this study was to determine median survival time in relation to surgical risk and chronological age in SAVR patients.

**METHODS** Patients ≥60 years with aortic stenosis who underwent isolated SAVR with a bioprosthesis ( $n = 8,353$ ) were risk-stratified before surgery into low, intermediate, or high surgical risk using the logistic EuroSCORE (2000–2011) or EuroSCORE II (2012–2017) and divided into age groups. Median survival time and cumulative 5-year mortality were estimated with Kaplan-Meier curves. Cox regression analysis was used to further determine the importance of age.

**RESULTS** There were 2,123 (85%) low-risk patients, 942 (11%) intermediate-risk patients, and 988 (14%) high-risk patients. Median survival time was 10.9 years (95% confidence interval: 10.6–11.2 years) in low-risk, 7.3 years (7.0–7.9 years) in intermediate, and 5.8 years (5.4–6.5 years) in high-risk patients. The 5-year cumulative mortality was 16.5% (15.5%–17.4%), 30% (27.5%–33.7%), and 43.0% (36.9%–48.7%), respectively. In low-risk patients, median survival time ranged from 16.2 years in patients aged 60 to 64 years to 6.1 years in patients aged ≥85 years. Age was associated with 5-year mortality only in low-risk patients (interaction  $P < 0.001$ ).

**CONCLUSIONS** Eighty-five percent of SAVR patients requiring bioprostheses have low surgical risk. Estimated survival is substantial following SAVR, especially in younger, low-risk patients, which should be considered in Heart Team discussions. *J Am Coll Cardiol* 2021;78(22):2147–2157 © 2021 The Authors. Published by Elsevier on behalf of the American College of Cardiology Foundation. This is an open access article under the CC-BY-NC-ND license (<http://creativecommons.org/licenses/by-nd/4.0/>).

**E**uropean and North American guidelines on aortic valve disease recommend that age, surgical risk, and life expectancy be taken into consideration, together with clinical, anatomic,

and procedural factors, when the Heart Team decides between surgical aortic valve replacement (SAVR) and transcatheter aortic valve implantation (TAVI) in patients with severe aortic stenosis (1,2). The

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ISSN 0735-0039

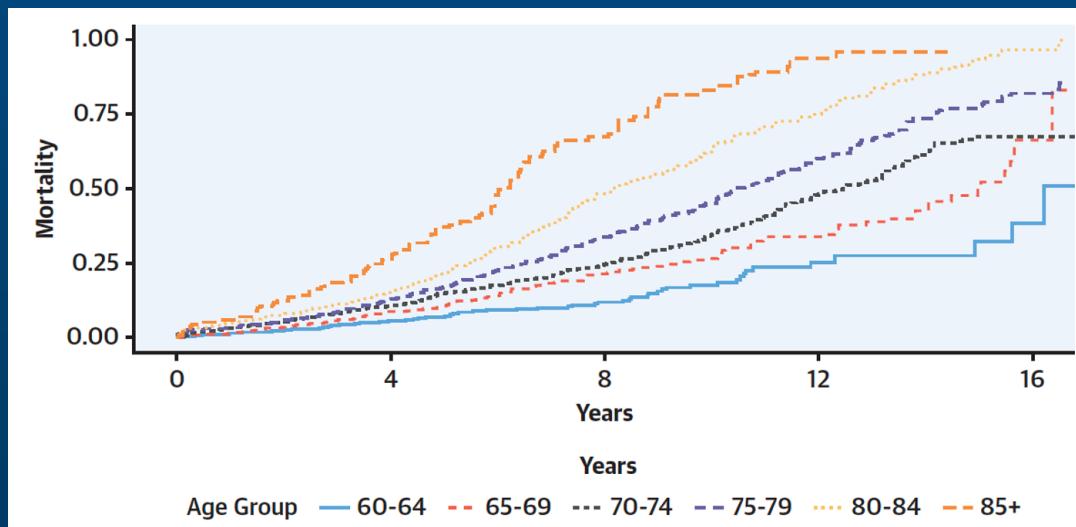
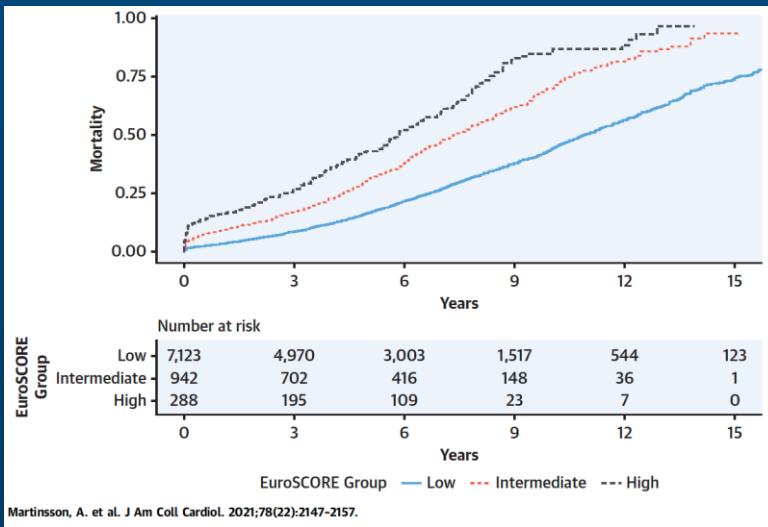
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Journal of the American College of Cardiology  
Volume 78 Number 22 November 30, 2021  
ISSN: 0735-1097  
ISSN: 1532-541X  
DOI: 10.1016/j.jacc.2021.09.080  
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# Patients > 60 years with aortic stenosis who underwent isolated SAVR with a bioprosthetic valve (n = 8,353) were risk-stratified before surgery into low, intermediate, or high surgical risk using the logistic EuroSCORE (2000–2011) or EuroSCORE II (2012–2017) and divided into age groups.

## Follow up 100%

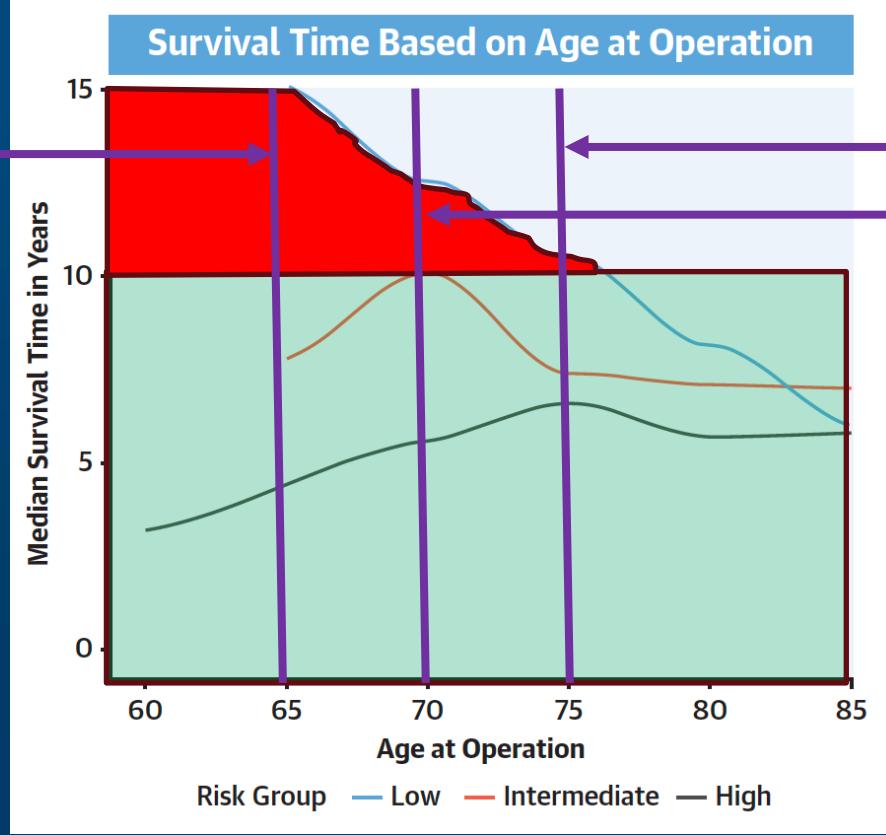
Martinsson A, Nielsen SJ, Milojevic M, Redfors B, Omerovic E, Tønnessen T, Gudbjartsson T, Dellgren G, Jeppsson A , Life Expectancy After Surgical Aortic Valve Replacement. *J Am Coll Cardiol*. 2021 Nov 30;78(22):2147-2157. doi: 10.1016/j.jacc.2021.09.080.



I believe we  
have 10-year  
durability safety

US Guidelines

EU  
Guidelines



# Conclusion/Summary/Take-home Message

- 10-year survival and BVF appears similar
- TAVR is less invasive and you recover faster
- All patients want TAVR
- These are only the first 3 reasons