“The choice of the appropriate prosthesis for a young patient is likely the easiest way to avoid mismatch”\textsuperscript{1}
Severe PPM Is Associated with Increased Mortality

Meta-analysis of 34 STUDIES with 27,186 PATIENTS

SHOWED 6.5X increase in cardiac-related mortality with severe PPM
2020: Perceval or Trifecta to Prevent PPM

**Perceval or Trifecta to Prevent Patient-Prosthesis Mismatch**

Daniel Hernandez-Vaquero 1, 2, *, Carla A. Vigil-Escalera 3, Yan Pernia 3, Carlos Morales 1, Isaac Pascual 2, 4, Alberto Díaz-Rodríguez 3, Emiliano Rodriguez-Caulet 4, Manuel Camara 5, Rocío Díaz 1, Pablo Avanzas 2, César Moris 2, and Jacobo Silva 1

1 Cardiac Surgery Department, Heart Area, Hospital Universitario Central de Asturias, 33011 Oviedo, Spain; carleva8@gmail.com (C.V.E.); cmorales@telecable.es (C.M.); diazmendos@gmail.com (R.D.);
2 JILva8252@yahoo.es (J.S.);
3 Department of Cardiology, Heart Area, Hospital Universitario Central de Asturias, 33011 Oviedo, Spain; yanperapi@outlook.com (Y.P.); pascual1@live.com (I.P.); avanzas@gmail.com (P.A.);
4 cesarmoris@gmail.com (C.M.);
5 Department of Cardiology, Hospital Universitario de Canarias, 38020 Tenerife, Spain; adrsdg@hotmail.com
4 Cardiac Surgery Department, Hospital Universitario Virgen de la Macarena, 41009 Sevilla, Spain;
5 enrdguz02@hotmail.com
* Correspondence: dhvaques@gmail.com; Tel.: +34-985274688
† Both authors share first authorship.

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4 years including patients with Trifecta or Sutureless in a tertiary center

**Patient-prosthesis mismatch analyzed**

Impact of the implanted prosthesis on the presence of mismatch using a multinomial logistic regression analysis

516 patients analyzed

First quartile impact factor
Perceval or Trifecta to Prevent PPM

Postoperative gradients consistently lower than those with Perceval
Postoperative area consistently higher than using Perceval
Trifecta or Perceval to Reduce Patient-Prosthesis Mismatch

Perceval sutureless prosthesis (n=131)

Size S / Number 19

- 12 (37.5%) Moderate PPM
- 4 (12.5%) Severe PPM

Size M / Number 21

- 11 (21.2%) Moderate PPM
- 0 (0%) Severe PPM

Size L / Number 23

- 3 (10.7%) Moderate PPM
- 1 (3.6%) Severe PPM

Size XL / Number 25-27

- 2 (10.5%) Moderate PPM
- 0 (0%) Severe PPM

Trifecta aortic prosthesis (n=385)

Size S / Number 19

- 13 (17.8%) Moderate PPM
- 6 (8.2%) Severe PPM

Size M / Number 21

- 10 (7.1%) Moderate PPM
- 2 (1.4%) Severe PPM

Size L / Number 23

- 10 (8%) Moderate PPM
- 0 (0%) Severe PPM

Size XL / Number 25-27

- 0 (0%) Moderate PPM
- 0 (0%) Severe PPM

Multivariate logistic regression

Conclusion

TRIFECTA AORTIC PROSTHESIS REDUCES BY 50% THE RATE OF MODERATE PPM
Perceval or Trifecta to Prevent PPM

“Compare with Perceval prosthesis, Trifecta is able to reduce by 50% the risk of moderate PPM³.”
Perceval or Trifecta to Prevent PPM

PORQUE EL ÁREA PROTÉSICA IMPORTA... Y NO TODAS LAS PRÓTESIS SON IGUALES
The Trifecta™ Valve

“The nearly cylindric opening of the prosthesis on systole provides gradients and EOAs that surpass any other available stented aortic prosthesis and approach those of stentless prostheses.”
The Trifecta™ Valve: AREA

For 19 mm: Area > 1.4 cm²
For 21 mm: Area > 1.6 cm²

*For References 5-10, data are from IFU, not from a head-to-head comparison. Information provided for educational purposes only.

The Trifecta™ Valve: GRADIENTS

Postoperative gradients $\leq 10$ mmHg

*For References 5-10, data are from IFU, not from a head-to-head comparison. Information provided for educational purposes only. https://www.structuralheartolutions.com/structural-heart-products-solutions/aortic-valve-trifecta-gt/clinic-data/
EO AREA WITHOUT COMPETENCE

• Trifecta 21 has an area similar to Edwards Resilia 23

• Trifecta 21 has an area similar to Mitroflow 25

• Trifecta 21 has an area similar to Medtronic Avalus 25

• Trifecta 21 has an area similar to Livanova Perceval XL
The Trifecta™ Valve

Shows a Consistently Low Rate of PPM Compared to Other Valves

"The Trifecta valve appears to be the surgical prosthesis that currently is associated with the **lowest rate of PPM**, maybe even lower than that of Transcatheter prostheses."
Trifecta™

Collagen fiber alignment
MAXIMIZES FATIGUE RESISTANCE

EACH VALVE visually and functionally inspected

Titanium band*
MAINTAINS STENT GEOMETRY during implant

Controlled leaflet thickness
ENHANCES TENSILE STRENGTH

LINX™ AC TECHNOLOGY
Anticalcification (AC) treatment

Precision suturing
REDUCES LEAFLET STRESS

*Feature of Trifecta™ valve with Glide™ Technology (GT) only.
## Trifecta™ Valves

### LOW RATE OF LEAFLET TEAR

<table>
<thead>
<tr>
<th>Study</th>
<th>Patients</th>
<th>Leaflet Tear at 5 Years</th>
<th>Absence of Severe PPM Post-Implant</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRIFECTA LTFU</td>
<td>710</td>
<td>1 (0.14%)</td>
<td>98%</td>
</tr>
<tr>
<td>UPMC</td>
<td>1,953</td>
<td>3 (0.15%)</td>
<td>100%</td>
</tr>
<tr>
<td>RENNES</td>
<td>824</td>
<td>2 (0.24%)</td>
<td>98.7%</td>
</tr>
<tr>
<td>LEIPZIG</td>
<td>918</td>
<td>2 (0.22%)</td>
<td>100%</td>
</tr>
</tbody>
</table>

**Four Studies | > 4,400 Patients**

**NCLT** – Non-Calcific Leaflet Tear | **PPM** – Prosthesis-Patient Mismatch.


