# FEops HEARTguide™ **Case Report: TAVI**

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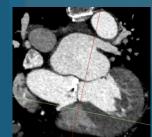
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An 81-year-old female patient with severe, symptomatic aortic valve stenosis

## Challenge

- 1) Very horizontal aorta
- "Borderline" sizing between CoreValve Evolut PRO 26 mm and CoreValve Evolut PRO 29 mm
- Pre-existing LBBB (Left Bundle Branch Block): try to avoid need of definitive pacemaker implantation after TAVI







#### Solution

FEops HEARTguide™ patient-specific computer simulations allow assessing the impact of different TAVI sizing end positioning strategies on predicted PVL (Paravalvular Regurgitation) and potential conduction disturbances.

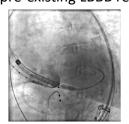


# **FEops HEARTguide<sup>™</sup> simulations**

### 26 mm Evolut PRO 29 mm Evolut PRO High Implant Medium Implant High Implant Medium Implant Paravalvular 3 m/s $0 \, \text{m/s}$ 3.3 mL/sec 1.9 mL/sec 0.8 mL/sec 1.8 mL/sec Contact Pressure 0.4 MPa 0.0 MPa 2% 6% 30% 31%

#### Result

With the support of the patient-specific computer simulation, it was decided to implant a CoreValve Evolut PRO 29 mm in a high position. Following TAVI, the patient had complete absence of regurgitation. The pre-existing LBBB remained unchanged.





"FEops HEARTguide™ helps to select preferred valve size in case of "borderline" valve sizing and helps to prevent the need of definitive pacemaker implant in patients with pre-existing LBBB."

- Prof Dr Johan Bosmans