

# Contemporary Results of Surgical Aortic Valve Replacement: Single, High-Volume Center Experience.

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**Objectives:** The introduction of transcatheter aortic valve replacement mandates attention to outcomes after surgical aortic valve replacement (SAVR). The aim of this study was to assess in-hospital outcomes in a contemporary large cohort of patients undergoing SAVR.

**Methods.** Data from 429 patients who underwent isolated aortic valve replacement between October 2016 and October 2018 were prospectively collected. The mean age of the study population was  $73.1 \pm 10.1$  years and the average EuroSCORE II was  $2 \pm 1.5\%$ .



Operative Data	
Mini-sternotomy	216 (93%)
Mini-thoracotomy	16 (7%)
SURD	102 (44 %)
UFT anesthesia	94 (41%)
Conversion to full sternotomy	5 (2%)
Clamp Time	$56 \pm 24$

Clinical Outcomes	
In-hospital mortality	1 (0.5 %)
Pmk	13 (3%)
Stroke	2 (0.5 %)
Intubation Time (hours)	5
ICU stay (hours)	24
Hospital stay (days)	6

**Results.** SAVR was performed using **minimally invasive approaches** in 54.1% (n = 232) of patients. Of these, 102 (44%) received **rapid deployment valves**, 83 (35.8%) **minimally invasive extracorporeal circulation (MiECC) system** and 95 (40.9%) **ultra fast track anaesthetic management (UFT)** with table extubation and early rehabilitation therapy. **Overall in-hospital mortality** was **0.5%** (n = 2), being 0.8% in octogenarian (n = 1) and 0.3% (n = 1) in younger patients (p = 0.5). The rate of postoperative stroke and atrioventricular block requiring pacemaker implantation was 0.5% (n=2) and 3% (n=13), respectively. When compared with conventional anaesthetic management, UFT was associated with reduced intensive care unit (24 vs. 30 hours, p = 0.04) and hospital (6 vs. 7 days, p = 0.04) length of stay.

## Conclusions.

Contemporary surgical AVR in a **high-volume center** yields **excellent clinical outcomes** with very low mortality and morbidity. Accordingly, SAVR still represents the treatment of choice in most patients suffering from aortic valve pathology, and alternative treatment options will have to be compared with this gold standard.