

# Quality of life after transcatheter aortic valve implantation: real-world experience

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**KEYWORDS:** quality of life, transcatheter aortic valve implantation, aortic stenosis.

**CITATION:** *Cardiol Croat.* 2024;19(11-12):464. | <https://doi.org/10.15836/ccar2024.464>

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**Introduction:** Decreased cardiac output (CO) because of aortic stenosis (AS), as well as ageing, atherosclerosis, diabetes, and hypertension, are risk factors involved in cognitive impairment (CI).<sup>1</sup> CI is one of the major components of quality of life (QoL) and therefore both should be assessed during the decision process regarding the best treatment option. This study investigates the QoL outcomes following Transcatheter aortic valve implantation (TAVI), hypothesizing that while survival is enhanced, QoL outcomes may vary, influenced by factors such as post-TAVI hospitalizations and the prevalence of cognitive impairment or decline.

**Patients and Methods:** This prospective observational study included 395 patients who were followed over a 1-year period post-TAVI. QoL was assessed using KCCQ overall score, categorizing patients into three groups: improved, unchanged or worsened. The prevalence of cognitive impairment using the Mini-Mental Status Examination (MMSE) was also evaluated to explore its impact on patient recovery and post-procedural QoL. Data were collected through medical record reviews and follow-up telephone interviews.

**Results:** Among 395 patients analyzed, 65% reported an improvement in their quality of life, 27% experienced no change and 8% experienced a decline after one year. Cognitive impairment was present in 38% patients before TAVI. Mortality rates were significantly higher among patients with worsened QoL (65.5%) compared to those with unchanged (35.4%) and improved (15.2%) QoL. Hospitalization rates were elevated among patients with unchanged (67.8%) or worsened QoL (42.8%). Furthermore, 12.35% of patients were diagnosed with deterioration of cognitive impairment, which was associated with poorer QoL outcomes and higher hospitalization rates.

**Conclusion:** These findings suggest that 35% patients report no change or even experience worsening of QoL after TAVI. Although recent advancements have substantially increased survival rates after TAVI, patients may not fully benefit from TAVI despite a technically successful procedure. This highlights the need for careful evaluation of patients before the procedure and to determine those who are more suitable candidates for palliative care.

**RECEIVED:**  
October 13, 2024

**ACCEPTED:**  
October 31, 2024



## LITERATURE

1. Lai KS, Herrmann N, Saleem M, Lanctôt KL. Cognitive Outcomes following Transcatheter Aortic Valve Implantation: A Systematic Review. *Cardio-vasc Psychiatry Neurol.* 2015;2015:209569. <https://doi.org/10.1155/2015/209569>