

# Assessing Frailty and Quality of Life in Transcatheter Aortic Valve Implantation

Ellen Gardner, Olivia Leary, Antony Walton, Ron Dick, Shane Nanayakkara

Epworth Healthcare

## Introduction

Transcatheter Aortic Valve Implantation (TAVI) is a commonly performed treatment option for patients suffering from severe aortic stenosis. Although endpoints such as rehospitalisation and death are often used as key metrics of procedural success, patient reported outcome measures play an important role in understanding the impact of this procedure on the patient's wellbeing.

## Aims

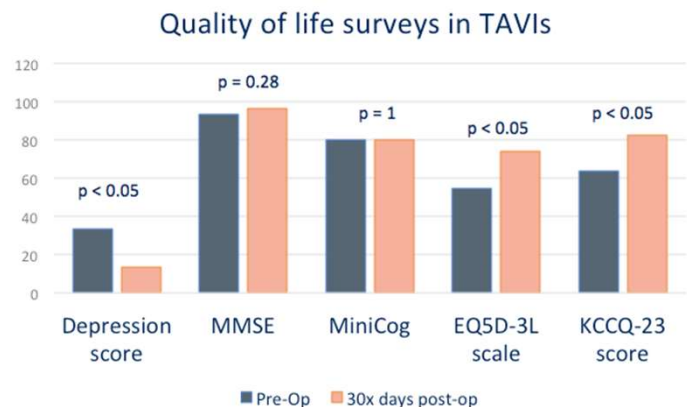
With the support from the Epworth Medical Foundation, we prospectively measured the cognitive, physical and quality of life outcomes of patients undergoing TAVI, utilising a validated panel of questionnaires. These measures were recorded prior to the procedure and at 30 days post procedure.

## Methodology

A panel of validated questionnaires were selected that broadly assess a patient's frailty and quality of life. These questionnaires were then completed prior to the TAVI and at 30x days post. This panel included;

- The KC Cardiomyopathy Questionnaire 23 (KCCQ-23)
- EQ-5D-3L
- Geriatric Depression Scale (GDS)
- Time Up and Go test (TUG test)
- JAMAR grip test
- Mini Nutritional Assessment (MNA)
- Mini Mental State Examine (MMSE)
- Mini-Cog test
- Clinical Frailty Scale (CFS)
- The Four Item Essential Frailty Toolset (EFT)

## Results



- The Geriatric Depression Scale, depression indicators dropped from 33.3% preoperatively to 13.3% post-TAVI (p<0.05).
- Mini-Mental State Exam showed no statistically significant decline in cognitive function pre and post-operatively (p=0.28).
- Mini-Cog Test showed no decline in cognitive function pre and post-operatively (p=1).
- The EQ-5D-3L scale indicates that the patient's subjective rating of their health significantly improved from 55% pre-TAVI to 74.3% post-TAVI (p <0.05).
- The KCCQ-23, measuring the burden of disease and disease symptoms, improved from 63.3% to 82.4% (p<0.05).

## Conclusions

Functional and quality of life measures improved significantly within 30 days following the procedure, as does the patient's subjective opinion of their overall health (the EQ-5D-3L scale). There were no significant changes in short term measures of cognitive function.

Taken together, this data shows immediate benefits in important patient outcome measurements following TAVI.

**A1 Add Ron Dick**

Author, 28/09/2020