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## Background

Prevalence of aortic stenosis and comorbidity burden correlates with advancing age. The Charlson Comorbidity Index (CCI) is a widely validated tool that predicts outcomes in a range of conditions and settings.

## Aims

1. Calculate CCI scores to assess the impact on 30-days, 6-month and 1-year outcomes following TAVI intervention.
2. Review current practice of frailty screening in the TAVI group.

## Methods

We analysed 38 eligible patients referred for CT TAVI at our institution between August 2021 to December 2022 and calculated their CCI score to study its impact on symptoms, procedural complications and mortality at 30-days, 6-months and 1-year post TAVI. Evidence of frailty screening was determined using retrospective case note review

## Results

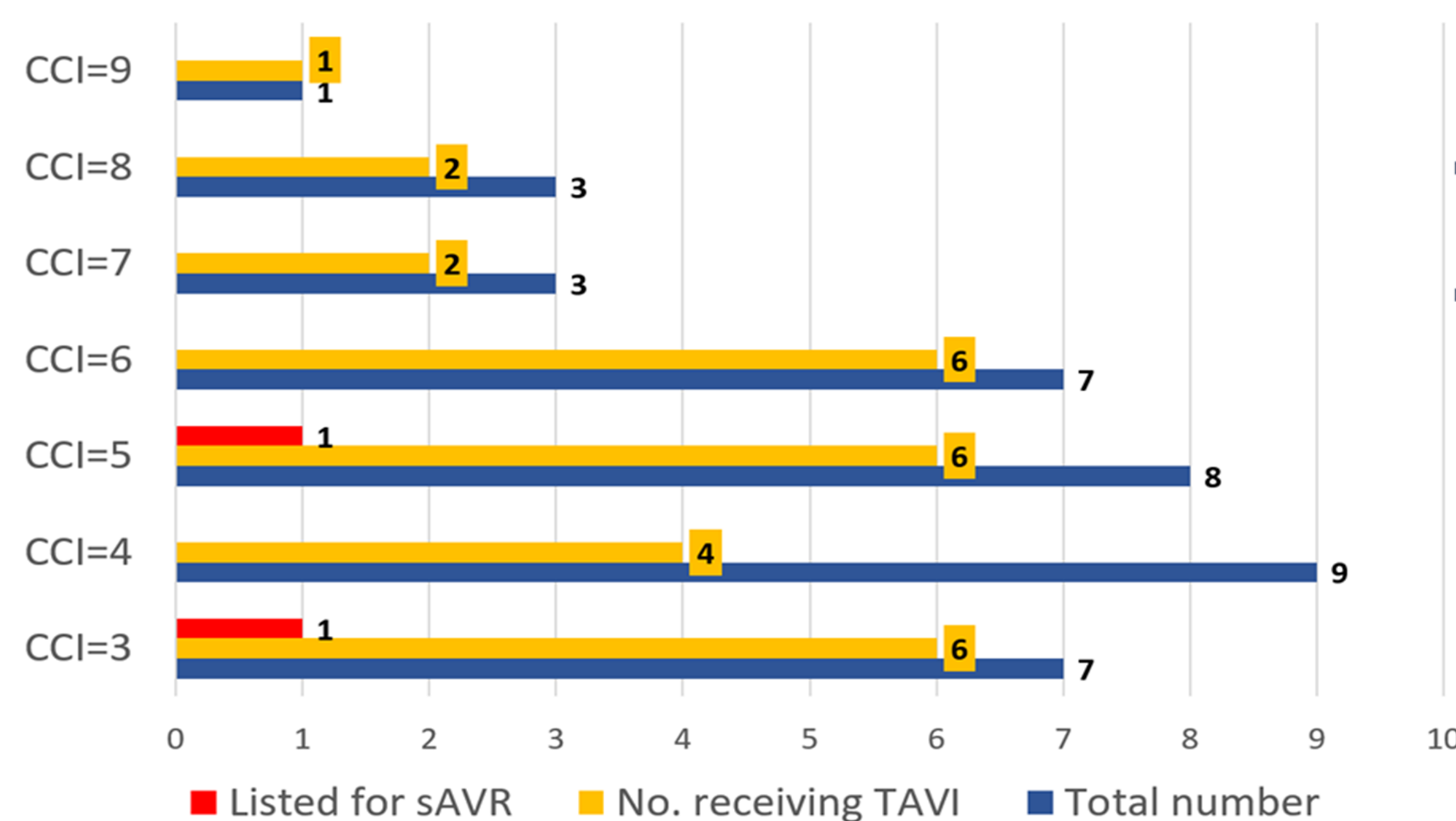
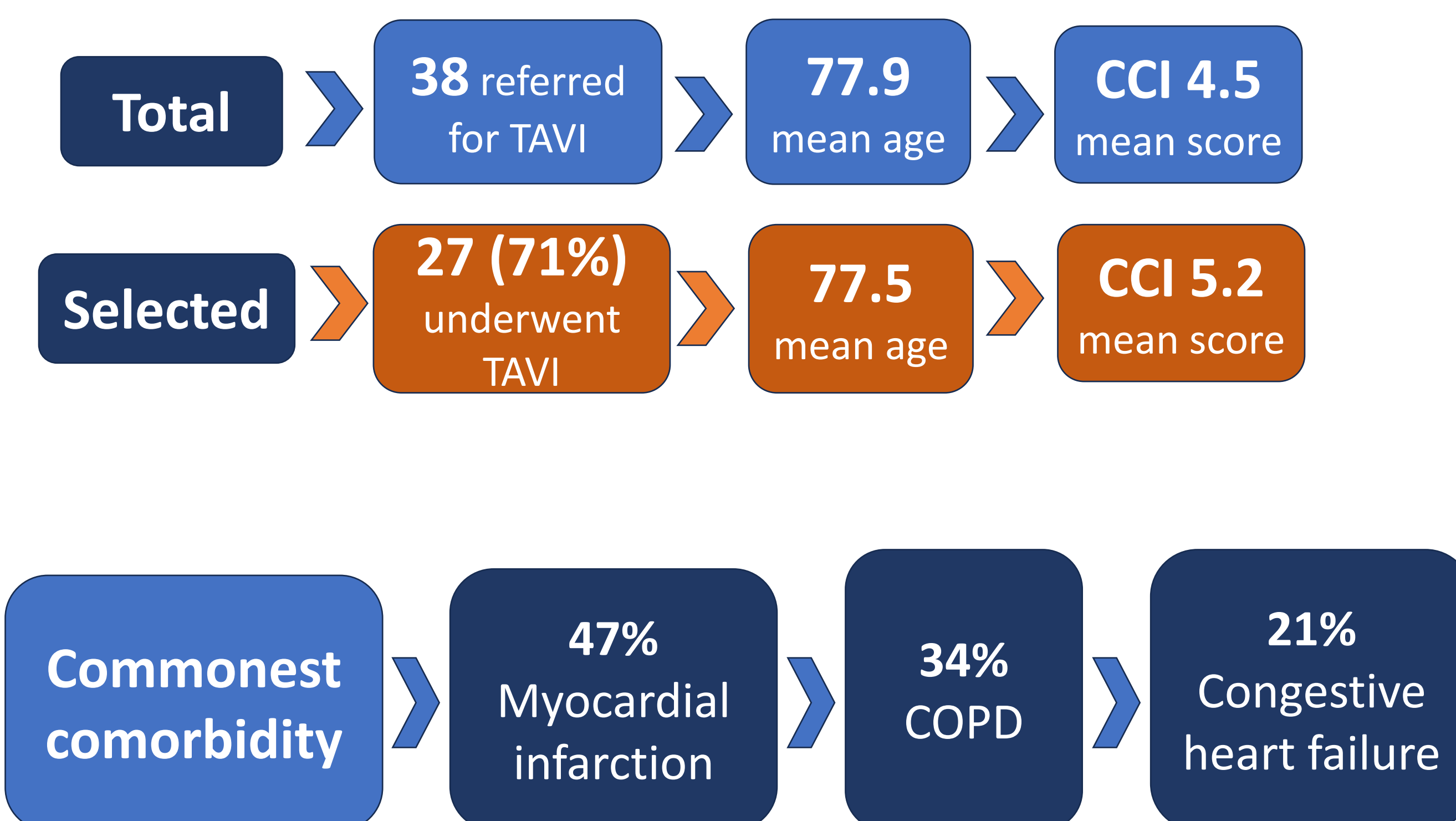
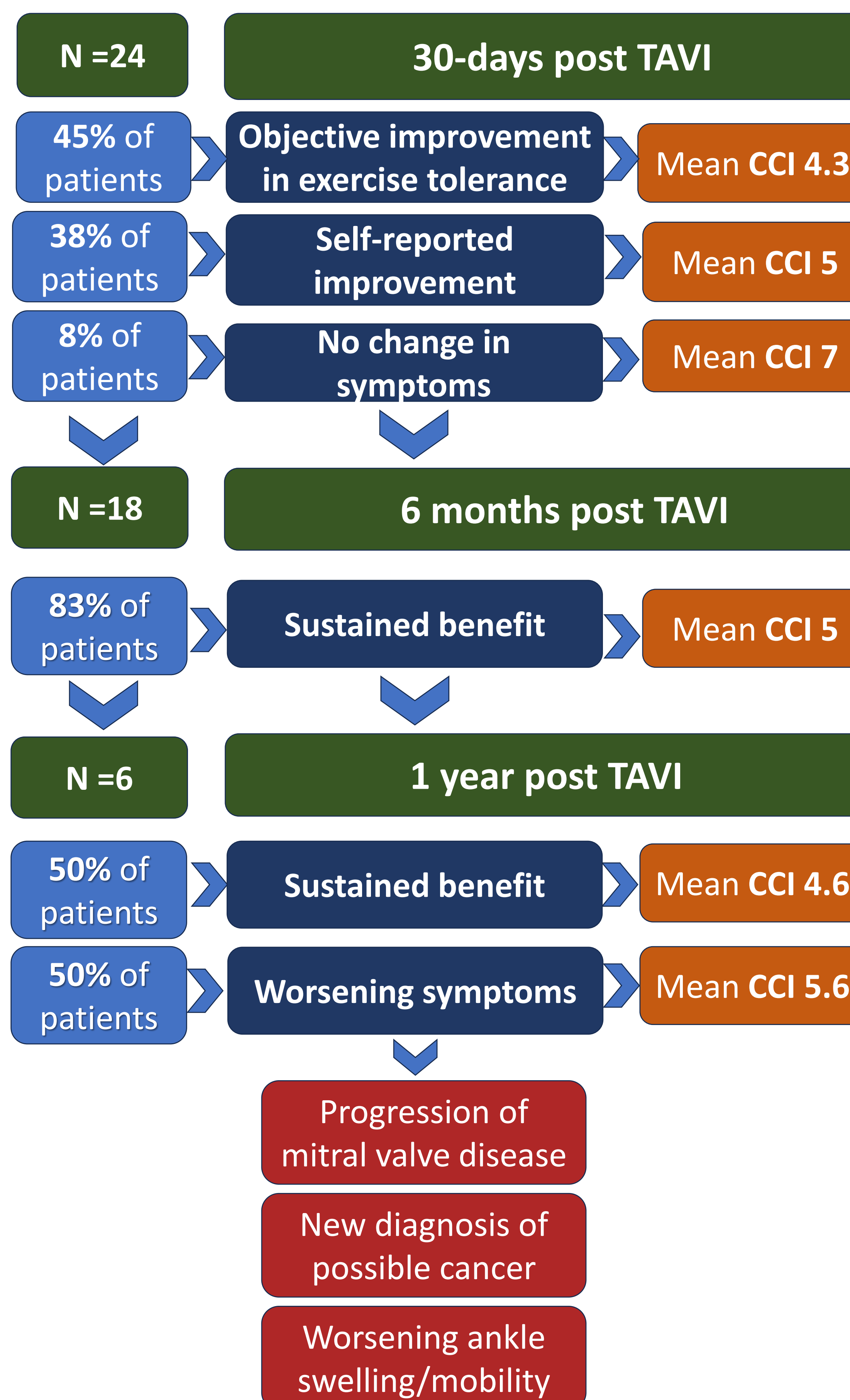
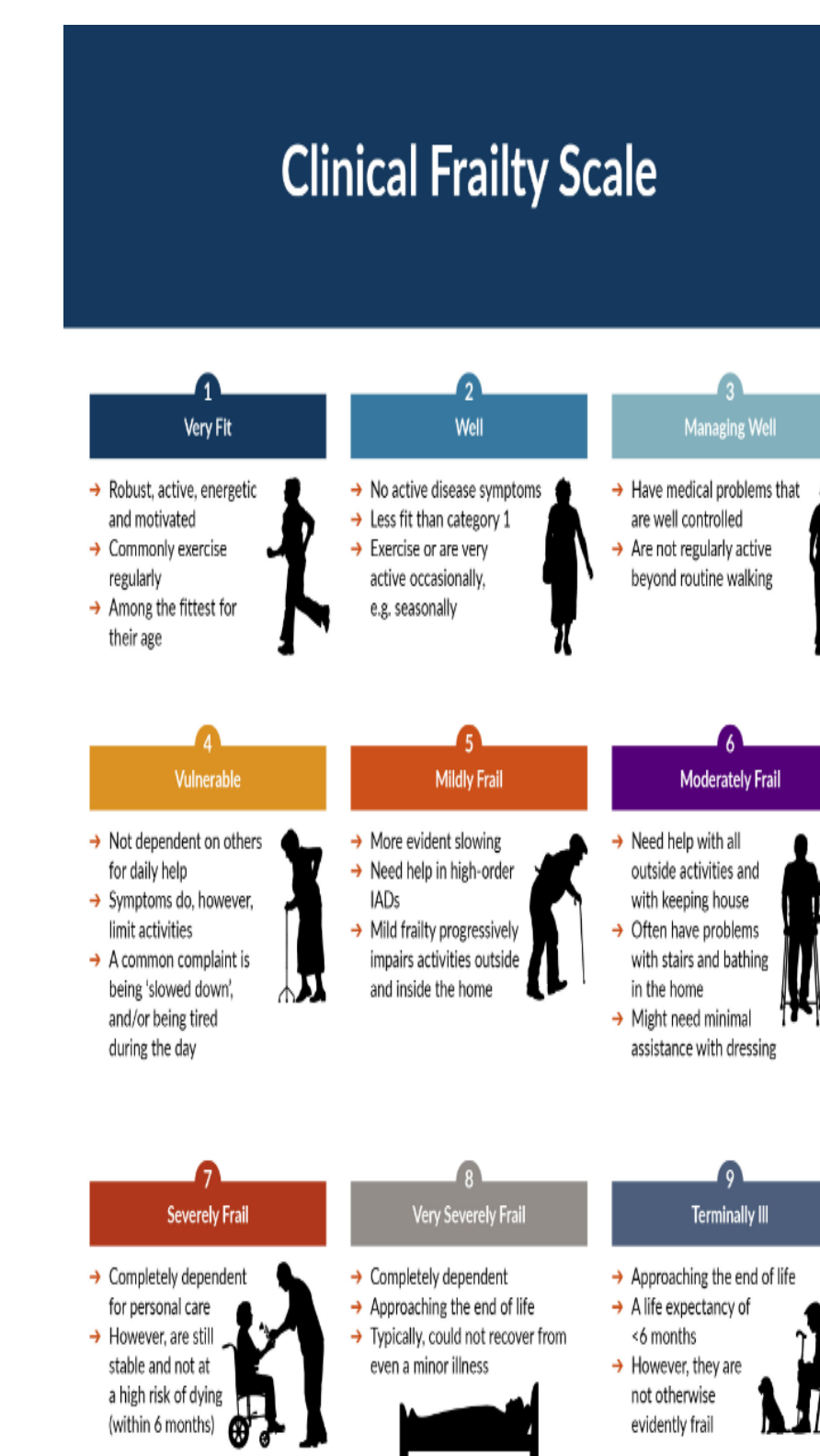


Figure 1: Number receiving TAVI by CCI score



Unavailable results: 30- Days: N=3 6 months: N=9 12-months: N=21  
No deaths



## Discussion

The CCI tool is reliable in predicting outcomes for patients undergoing TAVI. It can be quickly performed using a web-based calculator in a cardiology out-patient clinic at time of assessment. We observed good 30-day outcomes with CCI scores 4-5 but this benefit seemed to lessen at 6-months and 1-year when CCI score >5.6. CCI score did not predict complications (2 patients with mean CCI 4.5). Our results reflect the European Society of Cardiology (ESC) guidance with CCI score >5 conferring poorer prognosis. Futility of TAVI was predicted by CCI score >7 in our group. Frailty screening was not routinely done.

## Conclusions

- ✓ We recommend using the CCI score in the cardiology clinic to measure comorbid burden that may impact on recovery.
- ✓ Frailty status plays an important role in TAVI considerations. Incorporating frailty screening in adults suspected of living with frailty can be achieved in clinic using the widely validated Rockwood Clinical Frailty scale (CFS). This web-based tool is also available as a phone app.
- ✓ Mild-moderate frailty denoted by CFS 5/6 can be used to triage patients who may benefit from more comprehensive elderly care assessment.
- ✓ Intervention in severe frailty CFS >7 would likely confer more risk than benefit.
- ✓ These rapid web-based tools can help identify patients with potential barriers to recovery and rehab following TAVI.

## References

1. Munoz A. et al. Patient selection for TAVI. *E-journal of Cardiology Practice*. 2016; 14 (3). <https://doi.org/10.37461/escejcp>.
2. *Charlson Comorbidity Index (CCI)*. <https://www.mdcalc.com> [accessed 10.9.23]

No conflict of interest