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The rockwood clinical frailty scale as a predictor of adverse outcomes among older adults undergoing aortic valve replacement: a protocol for a systematic review

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Introduction: Frailty is associated with adverse outcomes relating to cardiac procedures. It has been proposed that frailty scoring should be included in the preoperative assessment of patients undergoing aortic valve replacement. We aim to examine the Rockwood Clinical Frailty Scale (CFS), as a predictor of adverse outcomes following aortic valve replacement.

Methods and Analysis: Prospective and retrospective cohort studies and randomized controlled trials assessing both the pre-operative frailty status (as per the CFS) and incidence of adverse outcomes among older adults undergoing either surgical aortic valve replacement (SAVR) or transcatheter aortic valve replacement (TAVR) will be included. Adverse outcomes will include mortality and periprocedural complications, as well as a composite of 30-day complications. A search will be conducted from 2005 to present using a pre-specified search strategy. Studies will be screened for inclusion by two reviewers, with methodological quality assessed using the Quality Assessment of Diagnostic Accuracy Studies (QUADAS-2) tool. Relative risk ratios with 95% confidence intervals will be generated for each outcome of interest, comparing frail with non-frail groups. Data will be plotted on forest plots where applicable. The quality of the evidence will be determined using the Grading of Recommendations, Assessment, Development and Evaluation (GRADE) tool.

Strengths and Limitations of This Study: This study will synthesize the totality of evidence with respect to the association of CFS-defined frailty with adverse outcomes after surgical and transcatheter AVR in older people and inform evidence-based practice on the utility of such an instrument. The review will employ rigorous methods to identify, select, appraise and synthesize the findings, adhering to standardized reporting guidelines to standardize the conduct and reporting of the review.Limitations of the review may include a low number of suitable studies, low quality evidence of included studies and heterogeneity in the conduct and reporting of study outcomes and duration of follow up.

Biography

Tadhg Prendiville affiliated from Department of Ageing and Therapeutics, University Hospital Limerick, Dooradoyle, Limerick, Ireland. He has published many papers in difference journals. His research interests are Myocardial Hypertrophy, Cardiopathy, Cardiovascular disease