

# Viewpoint on “The Frail Scale – A Risk Stratification in Older Patients with Acute Coronary Syndrome” [Letter]

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## Dear editor

We appreciate the authors' paper titled “Evaluation of the Frail Scale - A Risk Stratification in Older Patients with Acute Coronary Syndrome” by Anh Phuong et al.<sup>1</sup> We acknowledge the significance of their findings in the field of health education. As readers, we would like to share our perspectives on this study and offer input that can contribute to the further development of this research for future researchers interested in testing the frail scale.

The study conducted by Anh Phuong et al aimed to investigate the influence of frailty on in-hospital adverse outcomes and net adverse clinical events (NACE) in older patients diagnosed with acute coronary syndrome (ACS). The authors aimed to demonstrate the association between frailty in ACS patients and an elevated risk of in-hospital adverse outcomes and NACE. The study's findings have provided promising insights into the potential use of the simple FRAIL scale for risk stratification in older ACS patients. However, in addition to the noteworthy findings, it is important to consider certain aspects when evaluating the FRAIL scale.

The baseline data of the patients included in this study are generally classified appropriately, but the specific details still require further elaboration. Firstly, chronic kidney disease (CKD) had not been included in the comorbidity part listed in Table 1. However, CKD patients have a higher prevalence of frailty, particularly those with end-stage renal disease, and even higher among dialysis patients.<sup>2</sup> Recent studies have also demonstrated that frailty is an independent risk factor for elderly patients with CKD.<sup>3</sup> Secondly, the categorization of BMI in Table 1 was also inaccurate, as it failed to include data for obese individuals in addition to patients with underweight, normal weight, and overweight. Thirdly, the category of in-hospital adverse outcomes in Table 1 did not include acute kidney injury (AKI). Historically, AKI had been a well-known complication among hospitalized patients and was frequently observed as a severe complication of acute myocardial infarction.<sup>4</sup> Elderly patients with ACS were more susceptible to developing AKI, which often signifies a poor prognosis.<sup>5</sup> Additionally, Table 1 in the description of in-hospital adverse outcomes and NACE in this study, both of them included stroke and major bleeding, which may result in overlapping.

Lastly, some statistical analyses in this study deserve further discussion. Firstly, variables in Table 3, such as gender, age, LVEF, and angiography, when including them in the regression analysis, each variable should be separately set with a designated reference and the odds ratio (OR) value for the reference should normally be set as 1. Secondly, the regression analysis presented in Table 4, as the number of variables included increased, the OR values became larger. However, in general, the OR values should tend to decrease with the inclusion of additional variables. This result contradicts the usual principles of statistics. Therefore, we recommend that the authors make adjustments to the aforementioned issues, as failing to do so may have varying degrees of impact on the statistical results, ultimately making it difficult to establish valid clinical conclusions.

In conclusion, we acknowledge that Anh Phuong's study can serve as a valuable reference for reviewing and uncovering intriguing insights into the potential role of the simple FRAIL scale in risk stratification for older patients with ACS in coronary care settings. However, it is important to consider the need for extensive experience and evidence across various

subgroups of populations. To ensure broader applicability and generalizability, it is crucial to validate the findings in diverse populations, including different racial and ethnic backgrounds, as the prevalence of these patients varies.

## Disclosure

The author reports no conflicts of interest in this communication.

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