

# Letter to the Editor

## Title page

**High-Sensitivity Cardiac Troponin and New-Onset Heart Failure: Could a quantitative meta-analysis be performed for the C index?**

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## Letter to the Editor

I have read the article by Evans and colleagues published in the JACC – Heart Failure with a great interest (1). The authors conducted a systematic review and meta-analysis of 67,063 patients with 4,165 incident heart failure events from 16 prospective studies. The results in this study suggest that serum high-sensitivity cardiac Troponin is strongly associated with the risk for incident heart failure beyond conventional risk factors. Certainly, Evans et al. have conducted a very valuable and exciting study. However, the authors mentioned that they were not able to perform a quantitative meta-analysis of the C index data in this study because some studies did not report confidence intervals (CI) for C indexes and their changes. Could the authors calculate a quantitative meta-analysis of the C index only using fully reported studies? This would provide a clearer view that many readers might be interested.

Furthermore, an individual participant data meta-analysis in the N-terminal pro-B-type natriuretic peptide (NT-proBNP) concentration assessment was conducted from 40 prospective studies with 95617 participants without a history of cardiovascular disease (2). The authors demonstrated that in people without baseline cardiovascular disease, NT-proBNP levels strongly predicted first-onset heart failure that could be used to integrate heart failure into primary prevention of cardiovascular diseases. Could Evans et al. do a further analysis to compare the performance of NT-proBNP or BNP levels and high-sensitivity cardiac Troponin as well as other biomarkers such as CRP if it is possible?

### References

1. Evans JDW, Dobbin SJH, Pettit SJ, Di Angelantonio E, Willeit P. High-Sensitivity Cardiac Troponin and New-Onset Heart Failure. JACC: Heart Failure 2018;6(3):187.

2. Natriuretic Peptides Studies Collaboration, Willeit P, Kaptoge S, et al. Natriuretic peptides and integrated risk assessment for cardiovascular disease: an individual-participant-data meta-analysis. *The Lancet Diabetes & Endocrinol* 2016;4(10):840-849.