



Issues Related to High-Sensitivity Troponin Assays

To the Editor:

In the recent article in *Circulation Reports*, entitled “Performance of the 0-Hour/1-Hour Algorithm for Diagnosing Myocardial Infarction in Patients With Chest Pain in the Emergency Department – A Systematic Review and Meta-Analysis”, Nomura et al.¹ conducted a meta-analysis of the diagnostic performance of the 0-hour/1-hour algorithm and reported results for high-sensitivity troponin (hs-Tn) I and T assays. We are concerned that there are some issues with hs-Tn assays.

First, the authors included the results of 6 studies on hs-TnI assay in their meta-analysis; 5 of these studies used the Abbott ARCHITECT hs-TnI assay and 1 used the Siemens Dimension Vista 1500 hs-TnI assay. However, hs-TnI assays have different cut-off values and diagnostic performance, and the diagnostic performance of the 0-hour/1-hour algorithm is assay specific. Therefore, a meta-analysis of studies using different hs-TnI assays is probably incorrect and the results of different hs-TnI assays should be reported separately.

Second, the authors stated that 2 studies used a fourth-generation hs-TnT assay for the 0-hour/1-hour algorithm, but the fourth-generation troponin T assay is not an hs-Tn

assay and therefore cannot be applied to the 0-hour/1-hour algorithm.² It is probably an error for the fifth-generation troponin T.

Disclosures

M.T. has received non-financial support for research from Abbott Diagnostics Medical, Roche Diagnostics, and Siemens Healthcare Diagnostics. All other authors have no conflict of interest to declare.

References

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Received August 12, 2022; accepted August 12, 2022; J-STAGE Advance Publication released online October 21, 2022

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ISSN-2434-0790

