



Letters to the editor

Metabolic dysfunction and kidney disease risk in individuals with MAFLD

We thank Ma et al [1] for their interest and comments on our work [2]. Metabolic dysfunction-associated fatty liver disease (MAFLD) is the hepatic manifestation of systemic metabolic dysfunction, influenced by various environmental risk factors in individuals with genetic predispositions. MAFLD not only increases the risk of liver-related complications such as cirrhosis and hepatocellular carcinoma (HCC), but it also contributes to a range of extra-hepatic issues [3]. In particular, patients with MAFLD have a substantially elevated risk of developing chronic kidney disease (CKD), which affects an estimated 20% to 55% of these patients [4]. Importantly, the likelihood of liver-related and extra-hepatic outcomes—including CKD and cardiovascular disease (CVD)—rises with the severity of metabolic dysfunction and the number of metabolic dysfunction traits present in patients with MAFLD [4].

We agree with Ma et al [1] that the observed superior performance of the MAFLD criteria in identifying individuals at higher risk for CKD, as well as other outcomes like fibrosis, HCC, CVD, and mortality, can be attributed to these criteria's improved ability to capture metabolic dysfunction [5–8]. We also concur with their call for further prospective longitudinal studies to evaluate the comparative performance of MAFLD and MASLD diagnostic criteria. Such studies would help better characterize the role of metabolic dysfunction in the pathogenesis of MAFLD and its complications, and determine the best methods to define this metabolic dysfunction.

In conclusion, the severity of metabolic dysfunction is a significant determinant of the increased risk of CKD among patients with MAFLD. Currently, the MAFLD criteria represent the best available diagnostic framework for defining the disease.

Competing interests

None.

Acknowledgements

ME is supported by a National Health and Medical Research Council of Australia (NHMRC) investigator and ideas grants (AAP2008983 and APP2001692).

References

- [1] Ma Y, Lv N, Fang B. Comment on “MAFLD criteria are better than MASLD criteria at predicting the risk of chronic kidney disease”. *Ann Hepatol* 2025;26:101909. <https://doi.org/10.1016/j.aohp.2025.101909>.
- [2] Pan Z, Derbala M, AlNaamani K, Ghazianian H, Fan J-G, Eslam M. MAFLD criteria are better than MASLD criteria at predicting the risk of chronic kidney disease. *Ann Hepatol* 2024;29(5):101512. <https://doi.org/10.1016/j.aohp.2024.101512>.
- [3] Eslam M, Fan JG, Yu ML, Wong VW, Cua IH, Liu CJ, et al. The Asian pacific association for the study of the liver clinical practice guidelines for the diagnosis and management of metabolic dysfunction-associated fatty liver disease. *Hepatol Int* 2025;1–41. <https://doi.org/10.1007/s12072-024-10774-3>.
- [4] Sun D-Q, Targher G, Byrne CD, et al. An international Delphi consensus statement on metabolic dysfunction-associated fatty liver disease and risk of chronic kidney disease. *Hepatob Surg Nutr* 2023;12(3):386. <https://doi.org/10.21037/hbsn-22-421>.
- [5] Vaz K, Kemp W, Majeed A, Lubel J, Magliano DJ, Glenister KM, et al. MAFLD but not MASLD increases risk of all-cause mortality in regional Australia, with components of metabolic syndrome exacerbating factors: 20 year longitudinal, cohort study. *Hepatol Int* 2024;1–11. <https://doi.org/10.1007/s12072-024-10748-5>.
- [6] Pan Z, Al-Busafi SA, Abdulla M, Fouad Y, Sebastiani G, Eslam M. MAFLD identifies patients with significant hepatic fibrosis better than MASLD. *Hepatol Int* 2024;18(3):964–72. <https://doi.org/10.1007/s12072-024-10673-7>.
- [7] Jin H, Liang Z, Hu X, Li X, Liu Z, Qiao Y, et al. Comparative association of MAFLD/MASLD and subtypes with cardiovascular disease outcomes. *Nutr Metab Cardiovasc Dis* [Epub ahead of print], 2025. <https://doi.org/10.1016/j.numecd.2025.104024>.
- [8] Pan Z, Shiha G, Esmat G, Méndez-Sánchez N, Eslam M. MAFLD predicts cardiovascular disease risk better than MASLD. *Liver Int* 2024;44(7):1567–74. <https://doi.org/10.1111/liv.15931>.

Ziyan Pan

Mohammed Eslam*

Storr Liver Centre, Westmead Institute for Medical Research, Westmead Hospital and University of Sydney, NSW, Australia

*Corresponding author.

E-mail address: mohammed.eslam@sydney.edu.au (M. Eslam).