2nd GLOBAL LIVER HEALTH FORUM

# TOWARDS NAFLD TO MAFLD – IMPORTANCE OF STEATOSIS IN THE CURRENT PARADIGM SHIFT

See the lecture


## Prof Mohammed Eslam

Associate Professor of hepatology at the Storr Liver Centre at the University of Sydney and heads the fatty liver and genomics groups at Storr Liver Centre and the International Liver Genetics Consortium


SANOFI

# TOWARDS NAFLD TO MAFLD – IMPORTANCE OF STEATOSIS IN THE CURRENT PARADIGM SHIFT

## Problems with the terminology of 'NAFLD'

Professor Eslam highlighted the problems that arise with the current terminology of 'NAFLD'.[1] The term 'non-alcoholic' trivialises and stigmatises the disease and does not reflect current knowledge regarding its pathogenesis.[1] The name 'NAFLD' fails to capture the heterogeneity of the patient population and does not define an individual's phenotype with enough precision to develop targeted therapies, resulting in poor treatment responses and failed clinical trials.[1] Furthermore, NAFLD diagnosis is based on exclusion, despite the need to diagnose the disease using positive criteria as NAFLD can coexist with other liver diseases, impacting patient outcomes.[1] There is a lack of awareness, public health response and funding for NAFLD, which may be due to the negative impact of the NAFLD name.[2]

## Moving towards MAFLD

Fatty liver disease is closely associated with underlying metabolic dysfunctions such as overweight/obesity, type 2 diabetes, or other metabolic abnormalities which increase the risk of disease progression and the probability of extrahepatic comorbidities. Therefore, the change from 'NAFLD' to 'MAFLD' presents a more representative definition of the disease and has been endorsed by experts and organisations such as the International Consensus Panel, APASL, ALEH and the Middle East and North Africa consensus.[1,3–6]

The support for MAFLD reflects the advantages of adopting the new terminology. One such benefit is the inclusive diagnostic criteria of MAFLD, which is based on the detection of hepatic steatosis and presence of at least one of three criteria: overweight/obesity, type 2 diabetes, or evidence of metabolic dysregulation.[7] According to new APASL guidelines, hepatic steatosis is detected by liver histology, non-invasive serum biomarkers or imaging such as ultrasonography, MRI or CAP (by VCTE).[4]

## The MAFLD concept in practice

By employing the MAFLD definition in clinical practice, patients with fatty liver disease at high risk of disease progression are more easily identified.[8] Studies have demonstrated that the MAFLD definition has greater diagnostic sensitivity for significant liver fibrosis and may be better at identifying patients with high risk of cardiovascular complications and chronic kidney disease compared with NAFLD.[9–11]

Research suggests that changing from 'NAFLD' to 'MAFLD' increases physicians' understanding of the disease, enabling better care for patients.[12] Furthermore, the MAFLD definition allows physicians to consider extrahepatic comorbidities rather than focusing solely on the liver.[8] Reframing the disease to MAFLD removes the negative connotations of NAFLD which may improve patient care and, therefore, HRQoL.[13,14]

## Treatment of MAFLD

As stated in the APASL guidelines for the management of MAFLD, an effective therapy should reduce steatosis and liver injury, as well as improve the metabolic sequalae and cardiovascular risk that are inherently linked to MAFLD.[4] Therefore, lifestyle modification including dietary change, weight loss and structured exercise intervention remains the first-line and cornerstone therapy for MAFLD.[4]

## The paradigm shift from NAFLD to MAFLD: going forwards

Utilising the term MAFLD, a more accurate definition of the disease, will enable new, innovative clinical trials for the development of treatments for patients with MAFLD.[1]

### References


1. Eslam M, et al. Gastroenterology 2020;158(7):1999–2014.e1.
2. Lazarus JV, et al. J Hepatol 2020;72(1):14–24.
3. Eslam M, et al. Gastroenterology 2019;157(3):590–3.
4. Eslam M, et al. Hepatology International 2020;14:889–919.
5. Mendez-Sanchez N, et al. Gastroenterol Hepatol 2021;6(1):65–72.
6. Shiha G, et al. Gastroenterol Hepatol 2021;6(1):57–64.
7. Eslam M, et al. J Hepatol 2020;73(1):202–9.
8. Lin S, et al. Liver Int 2020;40(9):2082–9.
9. Yamamura S, et al Liver Int 2020;40(12):3018–30.
10. Lee H, et al. Clin Gastroenterol Hepatol 2020; doi:10.1016/j.cgh.2020.12.022. [Epub ahead of print].
11. Sun DQ, et al. Metabolism 2021;115:154433.
12. Fouad Y, et al. J Hepatol 2021;74(5):1254–1256.
13. Shiha G, et al. Gastroenterol Hepatol 2021;6(1):73–79.
14. Clayton M, et al. Liver Int 2021;41(4):683–91.

## Learning objectives:

- Gain an awareness of the problems with the old terminology of NAFLD
- Identify the key factors in the NAFLD to MAFLD paradigm shift
- Appreciate the importance of steatosis in MAFLD diagnosis
- Recognise the recommended therapy for the management of MAFLD
- Understand the implications of the new terminology of MAFLD for physicians and patients

## Main takeaways:

- The name NAFLD creates stigma and does not capture the heterogeneity of the patient population with regard to disease drivers and modifiers
- Compared with NAFLD, the concept of MAFLD more accurately reflects patient heterogeneity and the presence of metabolic dysfunction
- MAFLD diagnosis is based on the detection of hepatic steatosis and presence of at least one of three, metabolic-associated criteria
- Lifestyle modification including dietary change, weight loss and structured exercise intervention remains the first-line and cornerstone therapy for MAFLD
- The terminology of MAFLD improves physicians' understanding of the disease, has high diagnostic sensitivity, and will allow for new, innovative clinical trials

ALEH, The Latin American Association for the Study of the Liver; APASL, The Asian Pacific Association for the Study of the Liver; CAP, controlled attenuation parameter; HRQoL, health-related quality of life; MAFLD, metabolic-associated fatty liver disease; MRI, magnetic resonance imaging; NAFLD, non-alcoholic fatty liver disease; VCTE, vibration-controlled transient elastography.

MAT-GLB-2101685
Date of approval: June 2021