

A Call to Arms

WHO, EASL, AASLD, and APASL are among the 17 organisations calling for global action on SLD,¹ a leading cause of liver-related morbidity and mortality²

Early detection and management of MASLD can prevent progression to MASH, resulting in:

- ✔ Better outcomes: ~**10–25%** of patients with MASH may develop advanced fibrosis and cirrhosis³
- ✔ Lower health and societal costs: In Europe, MASH was responsible for **up to €1,292 million** of healthcare costs and €41,536 to €90,379 million of DALY-related wellbeing costs in 2018^{4†}

Main risk factors:⁵

- ✔ Obesity
- ✔ Type 2 diabetes

SLD is the new nomenclature for the metabolic-associated fatty liver disease spectrum, including:²

MASLD, formerly NAFLD ²	MASH, formerly NASH ²
<ul style="list-style-type: none"> ○ Caused by a build-up of fat in the liver⁶ ○ Usually asymptomatic⁵ ○ Affects more than one-third of adults, and more than one in 10 children¹ ○ Global prevalence increased by 50% between 1991–2019⁷ 	<ul style="list-style-type: none"> ○ The most severe form of MASLD⁸ ○ Can lead to cirrhosis, liver failure, and liver cancer⁹ ○ Over 16% of people with MASLD have MASH¹⁰

Ultrasound-Guided Attenuation Parameter (UGAP)



Non-invasive quantifiable image guided techniques expand adoption of ultrasound



GE HealthCare's UGAP solution, on the LOGIQ™ ultrasound portfolio:

- 1 Automated measurement algorithm for optimum measurement range¹⁴
- 2 Guided image acquisition for quantifiable, repeatable results
- 3 Proven intra/interobserver reliability independent of:
 - ✔ breathing manipulations¹⁵
 - ✔ patient positioning¹⁵
 - ✔ patient diet status¹⁵
- 4 Recommended quick acquisition protocols for:
 - ✔ large-scale use
 - ✔ reproducible results, even for non-ultrasound experts, including nurses and technicians
- 5 Well correlated to MRI-PDFF,¹³ with proven cut-off values¹⁶

The Assessment Pathway

Liver biopsy remains the gold standard for detecting SLD,¹¹ but:

- ✗ it is invasive¹¹
- ✗ there is inter/intraobserver variability¹¹

MRI-PDFF is a non-invasive technique to accurately evaluate liver fat fraction,⁶ but:

- ✗ it is expensive⁶
- ✗ there is limited access⁶

Traditional B-mode ultrasound:

- ✗ low sensitivity in patients who are severely obese¹²
- ✗ requires specialist sonographer expertise¹³
- ✗ intraobserver subjectivity

UGAP is well correlated to MRI-PDFF¹³

- ✔ cheaper and more accessible than MRI⁶
- ✔ provides staging information to guide management⁶

Key Takeaways



MASLD is a global health emergency. Early diagnosis is key to preventing progression to MASH



Liver biopsy is invasive and unfeasible for large-scale screening



MRI-PDFF is well correlated with biopsy but not suitable for screening at-risk patients or monitoring therapy



Ultrasound is dependent on user expertise, and is less sensitive and more subjective than MRI-PDFF



UGAP is well correlated to MRI-PDFF. It offers easy, quick, and repeatable quantitative measurement of steatosis



UGAP benefits both clinicians and patients, as it allows for early detection of MASLD, contributing to the more effective management of SLD

Abbreviations:

AASLD: American Association for the Study of Liver Diseases; APASL: Asian Pacific Association for the Study of the Liver; DALY: disability-adjusted life year; EASL: European Association for the Study of the Liver; MASH: metabolic dysfunction-associated steatohepatitis; MASLD: metabolic dysfunction-associated steatotic liver disease; MRI-PDFF: magnetic resonance imaging proton density fat fraction; NAFLD: non-alcoholic fatty liver disease; NASH: non-alcohol steatohepatitis; SLD: steatotic liver disease; UGAP: ultrasound-guided attenuation parameter; WHO: World Health Organization.

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