

# Early detection of metabolic-dysfunction associated steatotic liver disease using FIB-4

Premier Integrated Labs Sdn Bhd  
Kuala Lumpur, Malaysia

## KEY PARTNERS / STAKEHOLDERS

Yoke Lee Low | Hareeff Muhammed | Leslie Charles Lai Chin Loy | Mun Yee, Evonne Kong

Globally, metabolic dysfunction-associated steatotic liver disease (MASLD) has emerged as the most prevalent liver disorder, a silent epidemic that can lead to non-alcoholic steatohepatitis (NASH), cirrhosis, hepatocellular carcinoma (HCC), and/or end-stage liver disease (ESLD). Early identification of liver disease can minimize morbidity and mortality but can be difficult. The gold standard for diagnosing MASLD is liver biopsy, however, it can be constrained by sampling errors and the impracticality of continuous monitoring. Non-invasive alternatives like FibroScan are accepted, but their high cost makes them less accessible in impoverished nations and are not without limitations, including reduced efficacy in identifying MASLD in obese patients (BMI >30 kg/m<sup>2</sup>). Alternatives, such as liver function tests (LFTs) are available, but can be problematic in primary care as abnormal results are often overlooked, and some patients with cirrhosis can have normal LFTs.

Given the often asymptomatic nature of MASLD and need for early detection, the American Gastroenterological Association has introduced a clinical care pathway to guide clinicians in screening, diagnosing, and treating MASLD in primary care, of which a key component is the Fibrosis-4 (FIB-4) scoring system. FIB-4 is a valuable tool for grading liver fibrosis, as it utilizes easily accessible and affordable parameters in a primary care setting (age, ALT, AST and platelet count).

At Premier Integrated Labs Sdn Bhd in Malaysia, screening for liver disease with FIB-4 was launched in July 2022 and has subsequently screened 39,020 patients to date. Thus far 5,662 patients with 'moderate or high risk' of MASLD have been identified, while 33,358 patients were classified as 'low risk' and as such, did not require further referral. Through FIB-4-guided early follow-up and intervention, patient outcomes have improved. The latter includes wellness, mitigated hospital stays and reduced absenteeism. FIB-4 has also enhanced clinical decision-making, reaching 74% utilization and ultimately, reducing overall healthcare costs.



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