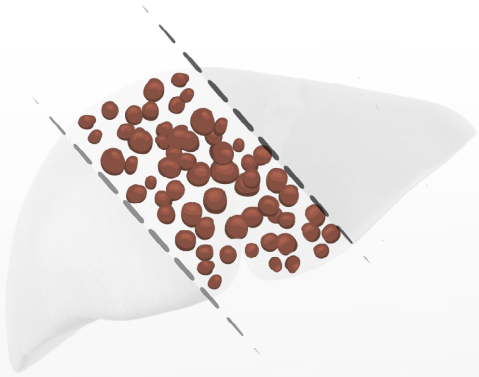
Management of MASLD

Importance and Utility of the Enhanced Liver Fibrosis (ELF) test



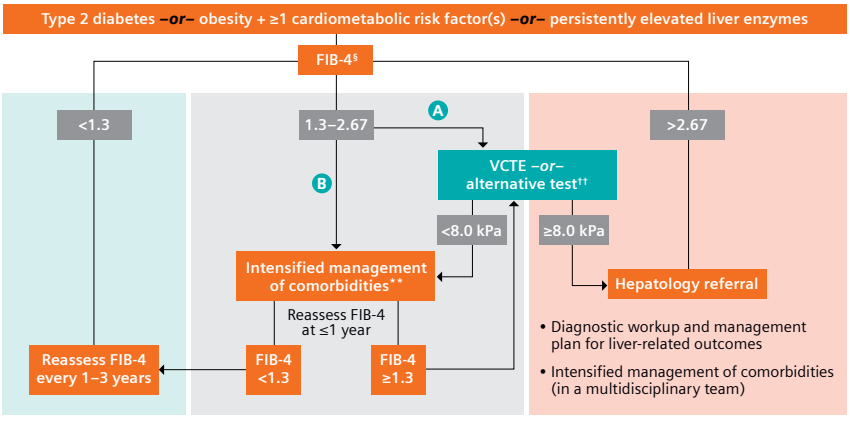
New clinical practice guidelines for the management of MASLD from three European societies emphasize the importance and utility of the Enhanced Liver Fibrosis (ELF) test in case-finding strategies

Latest news

Clinical practice guidelines

- The liver-focused clinician association EASL,* serving more than 5000 members from 112 countries in 2023, and two other important European scientific societies, EASD† and EASO,‡ released in September 2024 the most recent clinical practice guidelines (CPGs) for the management of metabolic dysfunction-associated steatotic liver disease (MASLD).[1]
- These new CPGs recommend using the enhanced liver fibrosis (ELF) test as a second-line test in case-finding strategies, as an alternative to vibration-controlled transient elastography (VCTE) (Figure 1). This is another major milestone for the ELF test, which has already been included in major CPGs in the United States over the past two years.[2,3]

Figure 1. Proposed strategy for noninvasive assessment of the risk for advanced fibrosis and liver-related outcomes in individuals with metabolic risk factors or signs of steatotic liver disease.[1]



A and B are options, depending on medical history, clinical context, and local resources.

*European Association for the Study of the Liver.
†European Association for the Study of Diabetes.
‡European Association for the Study of Obesity.

§FIB-4 thresholds valid for age ≤65 years (for age >65 years: lower FIB-4 cut-off is 2.0).
**e.g., lifestyle intervention, treatment of comorbidities (e.g., GLP1RA), bariatric procedures.
††e.g. MRE, SWE, ELF with adapted thresholds.

The ELF test is the only serum biomarker, along with other elastography techniques (shear-wave elastography and magnetic resonance elastography), recommended as alternatives to VCTE after FIB-4 in these new CPGs from EASL, EASD, and EASO. This highlights the clinical utility of the ELF test and the importance and value of laboratory testing in managing MASLD patients.

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Background

- Despite its prevalence, MASLD is a silent and largely undiagnosed condition.[5]
- Multiple studies have indicated the central role of fibrosis as the causative factor for disease progression.[6]
- Early diagnosis of liver fibrosis and appropriate patient management can potentially prevent disease progression to cirrhosis and other liver-related events.[1-3] Therefore, experts advocate for the implementation of case-finding strategies in populations at risk, primarily seen in non-hepatology settings.[1-3]
- VCTE is not widely available in non-hepatology settings[7] and may not be scalable given the size of the target population. Therefore, there is an opportunity for easily accessible and widely available noninvasive liver fibrosis tests, such as the ELF test, to address the unmet healthcare demand.

MASLD is estimated to affect approximately 30% of the global population

Formerly known as nonalcoholic fatty liver disease (NAFLD), MASLD is the most common cause of chronic liver diseases and the second indication for liver transplants in the United States.[4]

About the ELF test

- The ELF test is a blood test that includes three direct markers of liver fibrosis: hyaluronic acid (HA), amino-terminal propeptide of type III procollagen (PIIINP), and tissue inhibitor of metalloproteinase 1 (TIMP-1). The utility of the ELF test is demonstrated for the assessment of the severity of liver fibrosis in patients with chronic liver disease.[8,9]
- Outside the United States, the ELF test and score are CE-marked for the assessment of liver fibrosis severity in patients with signs, symptoms, or risk factors of chronic liver disease to support diagnosis of fibrosis staging or prognosis for likelihood of progression to cirrhosis and liver-related clinical events.
- The analytical and clinical performance of the ELF test has been abundantly documented in the literature over the past years. Recently, a meta-analysis from Hinkson A, et al.[10] confirmed that the ELF test has good performance in detecting liver fibrosis and cirrhosis with AUROC >0.8 (Table 1).

Table 1. Hinkson, et al.

	Significant Fibrosis	Advanced Fibrosis	Cirrhosis
ELF AUROC	0.811	0.812	0.810

In addition to inclusion in the EASL CPGs, other newly emerged key performance data for the ELF test include:

- The FIB-4-ELF pathway improved the detection of cases of advanced fibrosis five-fold and cirrhosis three-fold and reduced unnecessary referrals to hepatology clinics by 80 percent.[11,‡‡]
- The use of noninvasive tests in primary care is cost-efficient, and the combination of FIB-4 and the ELF test provided the greatest cost savings.[12,13,‡‡]
- A pathway with FIB-4 followed by ELF test vs. FIB-4 alone would generate a 47 percent cost reduction due to the lower number of VCTE measurements.[14,‡‡]
- The ELF test is widely accessible, convenient, reproducible,[15] and CE-marked. It is currently available in more than 20 countries and continues to expand globally.

Talk to your Siemens Healthineers representative to learn more about the ELF test and don't miss the opportunity to demonstrate the vital role and value of your clinical laboratory in MASLD patient management! Also, discover the comprehensive menu of solutions and tests Siemens Healthineers offers to manage chronic liver diseases.

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**Personalization of diagnosis, therapy selection and monitoring, aftercare, and managing health.*

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‡‡Based on results achieved in unique care settings. Because many variables exist (e.g., hospital size, samples mix, case mix), there can be no guarantee that other test users will achieve the same results.

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