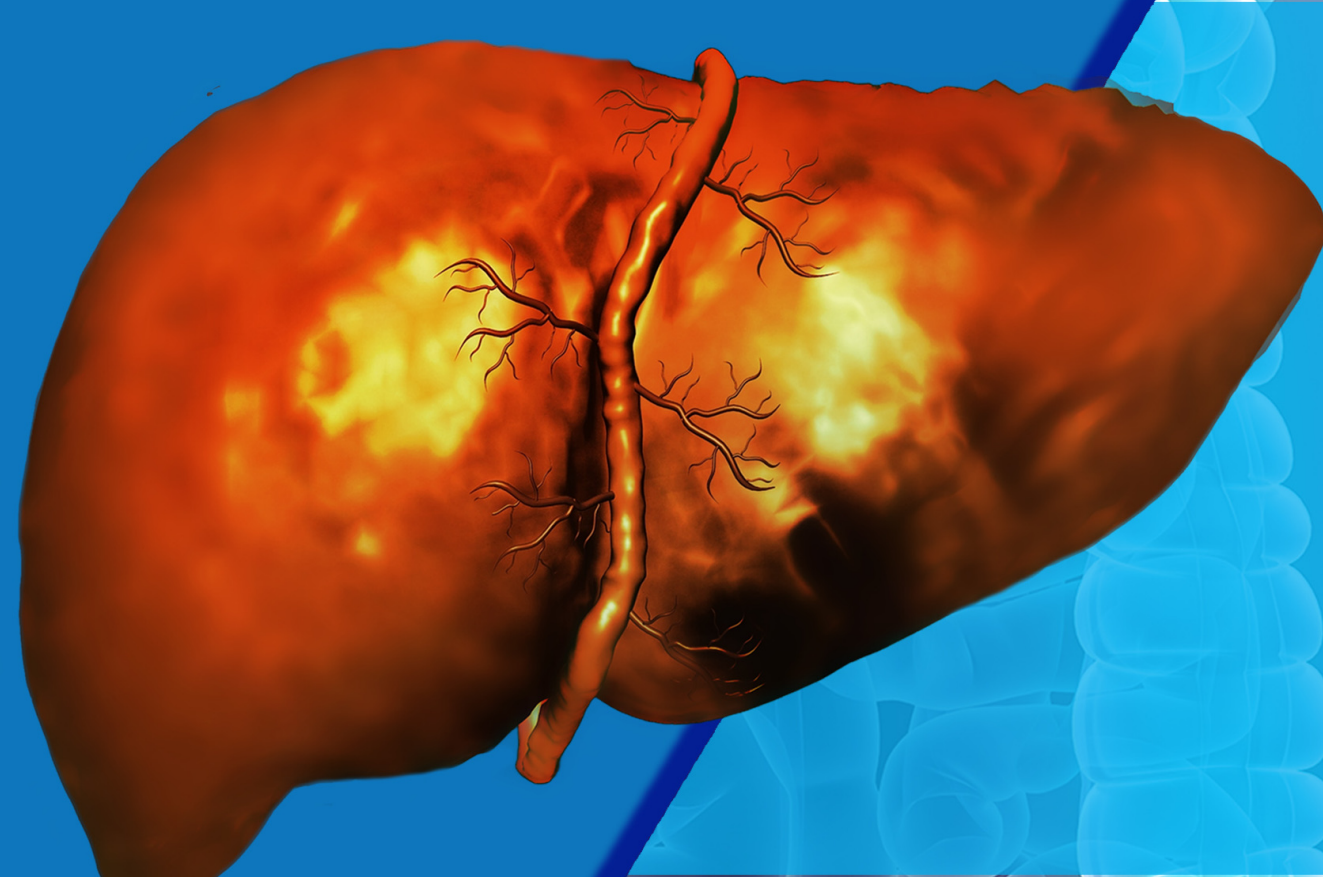
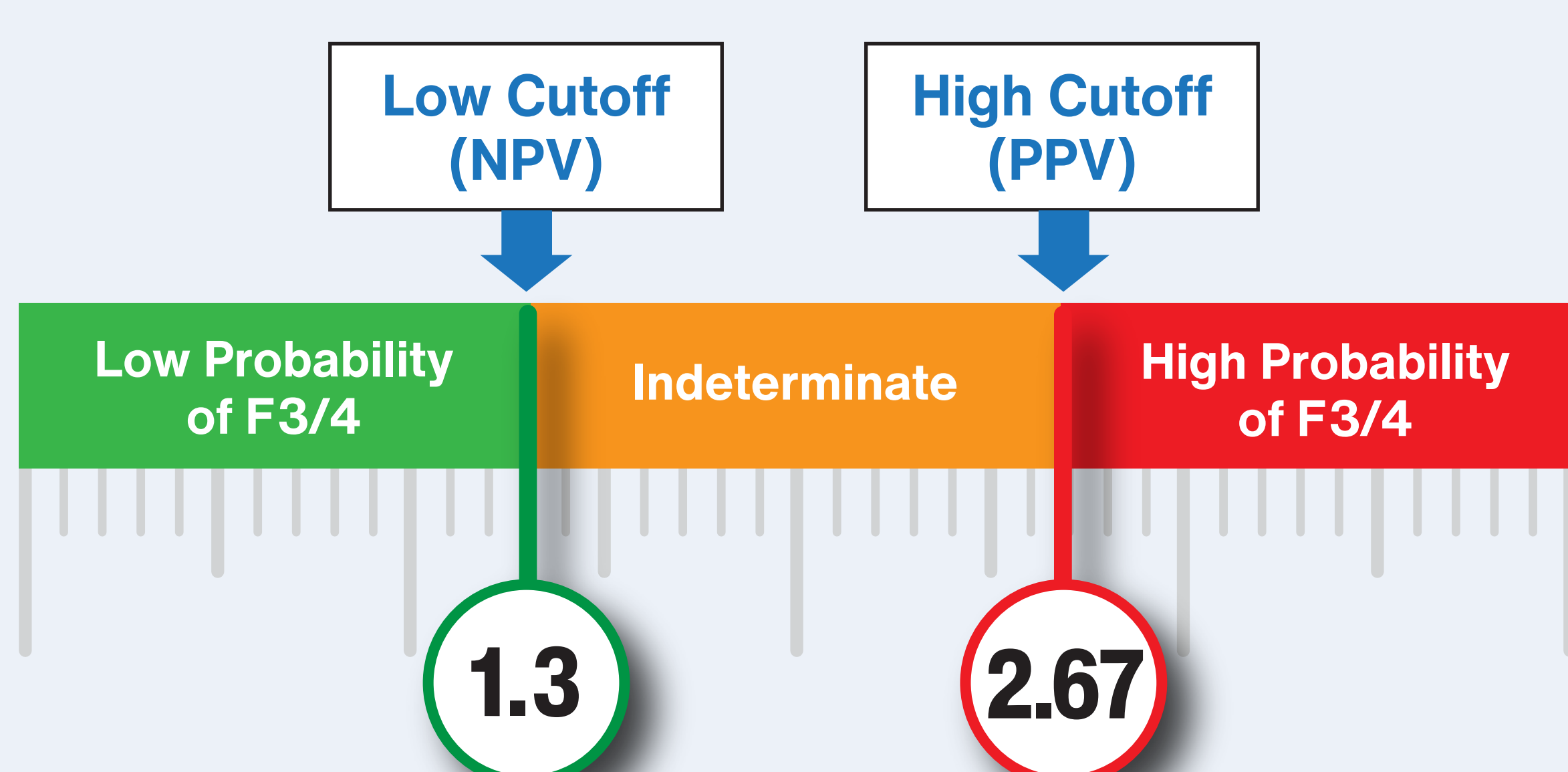


# Noninvasive MASLD/MASH Diagnostic Testing



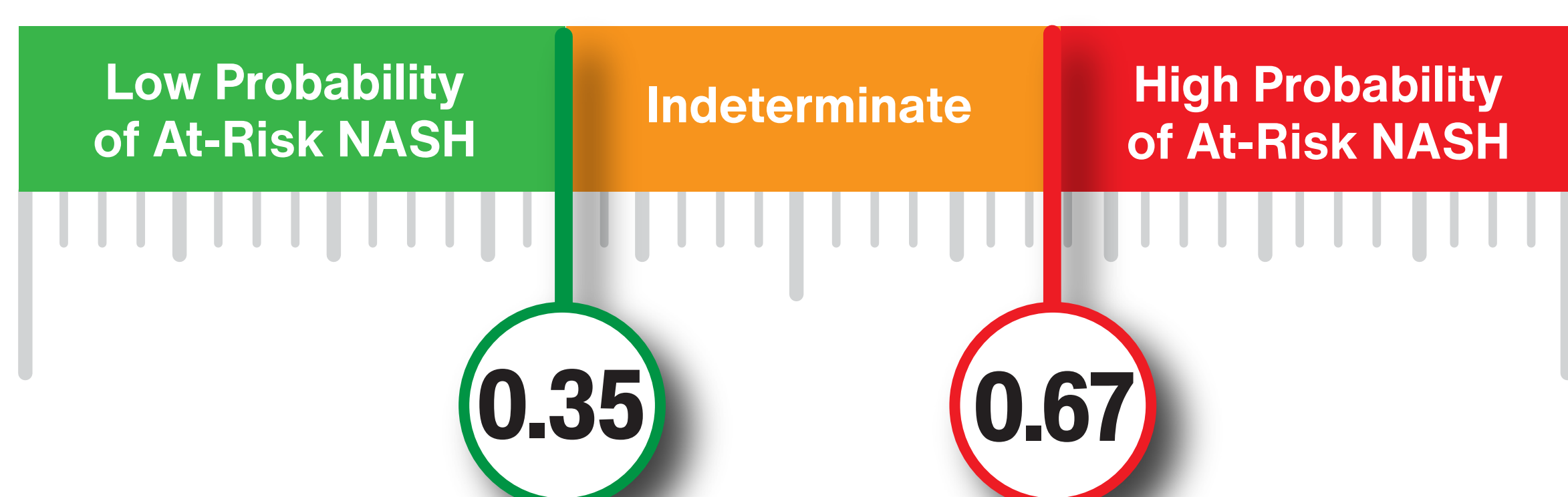
## FIB-4: Predicts Presence of Advanced Fibrosis

$$\text{FIB-4 Score} = (\text{Age} * \text{AST}) / [\text{Platelets} * \text{square root (ALT)}]$$



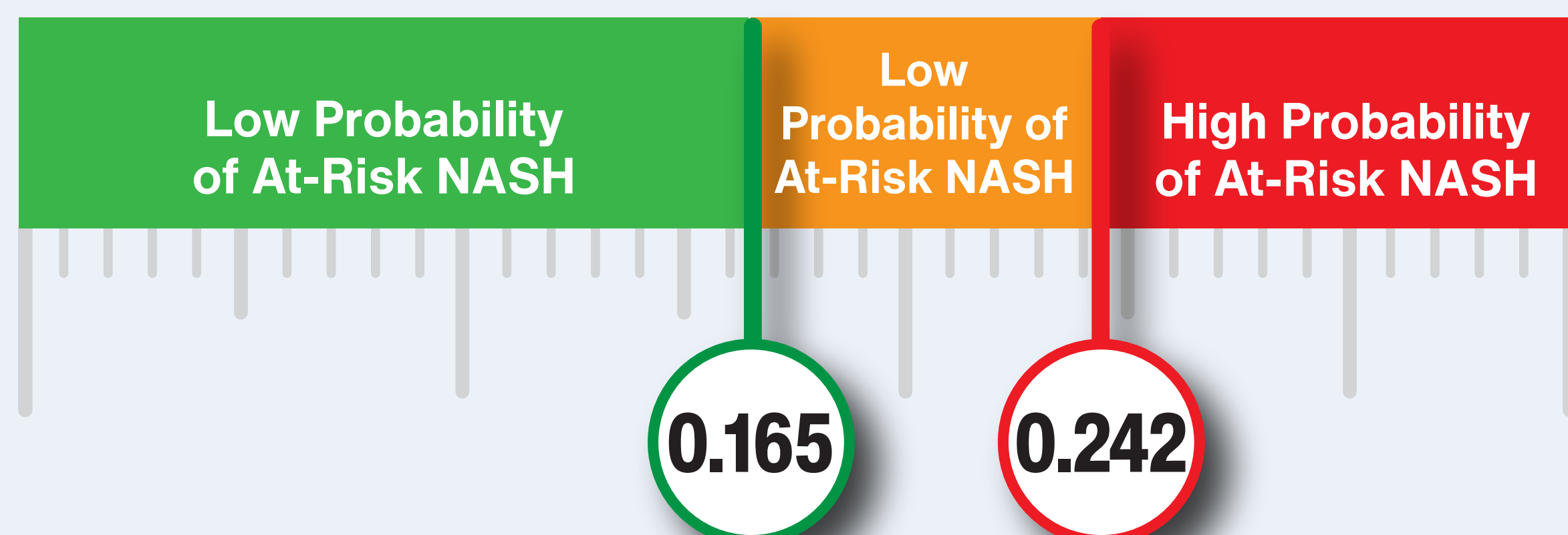
## FAST: For MASH With NAS ≥4 and F ≥2

### FAST: CAP + LSM + AST

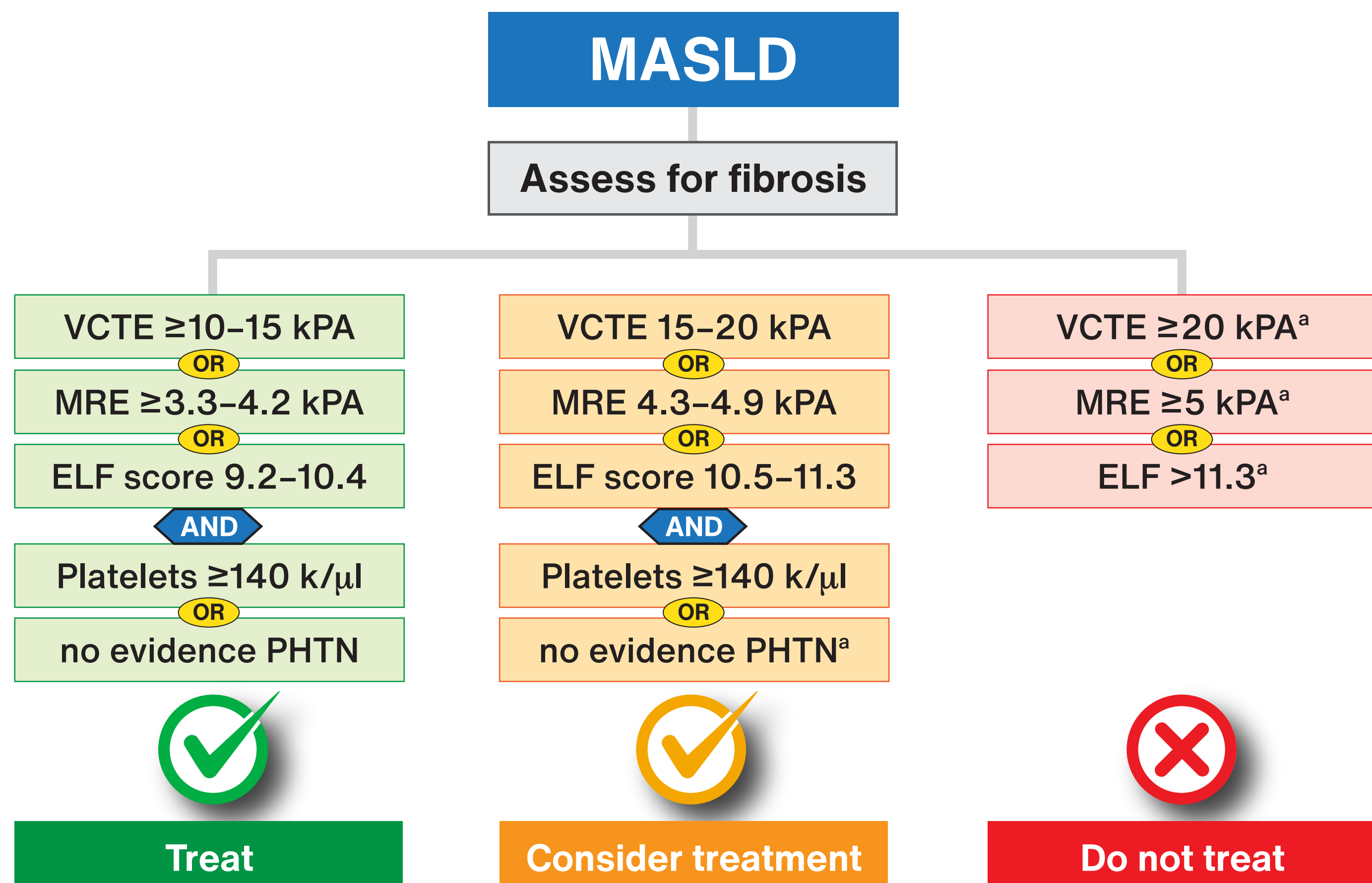


## MAST Score: MRI-Based Score to Identify Patients With NASH/MASH and Significant Fibrosis

The MAST score is an accurate, MRI-serum-based score that outperforms the NFS, FIB-4, and FAST scores in noninvasive identification of patients at higher risk of fibrosis-NASH

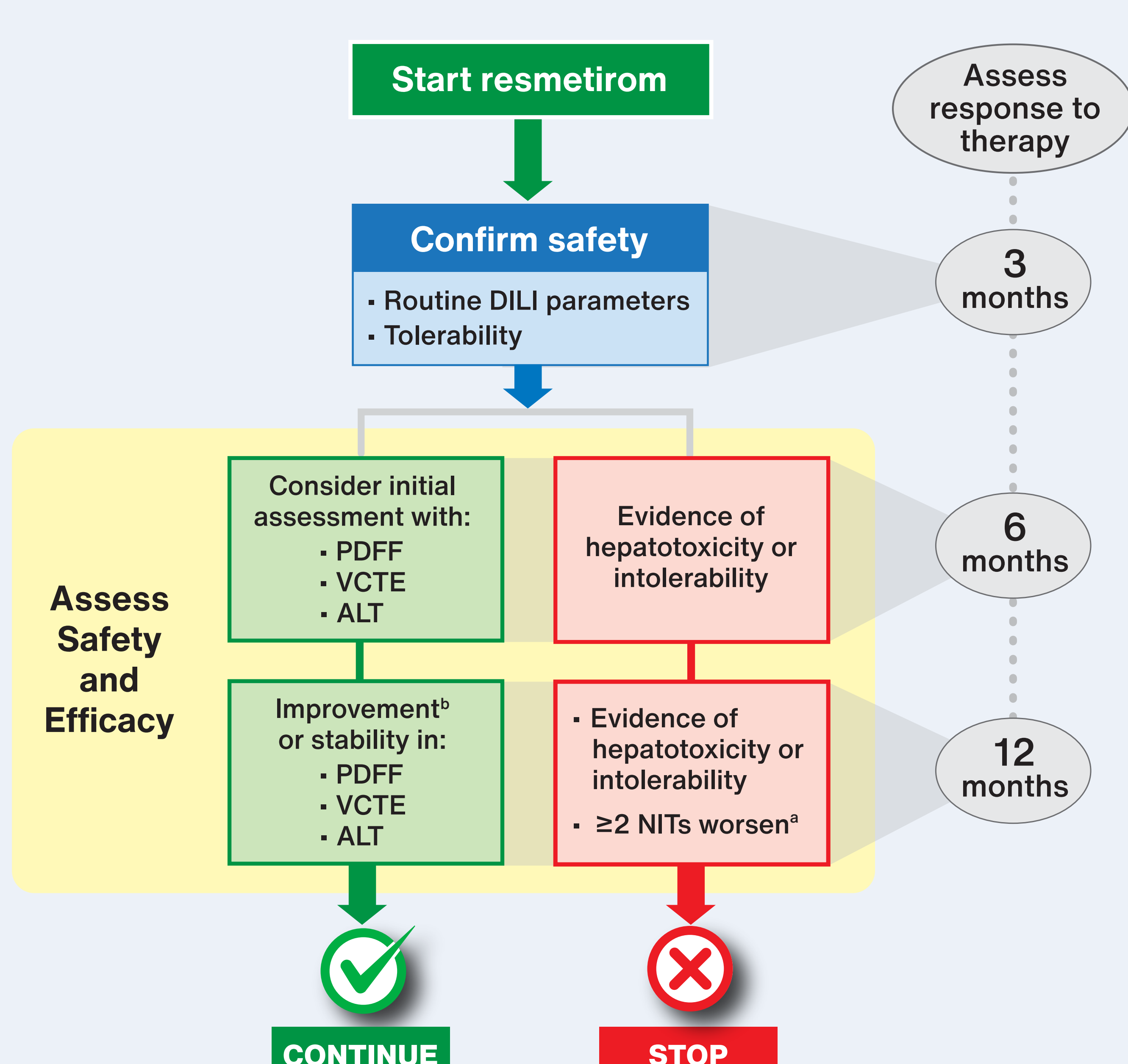


## Proposed Algorithm for Patient Selection Using NITs



<sup>a</sup> If biopsy is performed and liver histology demonstrates Stage 2 or 3 disease, can treat, as long as there is no clinical or imaging evidence of PHTN (eg, ascites apparent on imaging, gastroesophageal varices, or history of hepatic encephalopathy).

## Assessing Safety and Treatment Response of Resmetirom



<sup>a</sup> Based on MAESTRO-NASH, histologic improvements may occur without corresponding changes in VCTE results or liver enzymes, emphasizing the importance of considering MRI-PDFF or liver biopsy before labeling patients as unresponsive to treatment.

<sup>b</sup> Improvement defined as improvement in ≥2 NITs.

### Abbreviations

ALT: alanine transaminase  
 AST: aspartate aminotransferase  
 CAP: controlled attenuation parameter  
 DILI: drug-induced liver injury  
 ELF: enhanced liver fibrosis  
 F: fibrosis  
 FAST: FibroScan-AST  
 FIB-4: FibroScan-4  
 LSM: liver stiffness measurement  
 MASLD: metabolic dysfunction-associated steatotic liver disease  
 MASH: metabolic dysfunction-associated steatohepatitis  
 MAST: magnetic resonance imaging-aspartate aminotransferase

MRE: magnetic resonance elastography  
 MRI: magnetic resonance imaging  
 NAS: Nonalcoholic Fatty Liver Disease Activity Score  
 NASH: nonalcoholic steatohepatitis  
 NFS: nonalcoholic fatty liver disease fibrosis score  
 NIT: noninvasive test  
 NPV: negative predictive value  
 PDFF: proton density-fat fraction  
 PHTN: portal hypertension  
 PPV: positive predictive value  
 VCTE: vibration-controlled transient elastography

### References

Angulo P, et al. *Hepatology*. 2007;45:846-854.  
 McPherson S, et al. *Gut*. 2010;59:1265-1269.  
 Newsome PN, et al. *Lancet Gastroenterol Hepatol*. 2020;5:362-373.  
 Noureddin N, et al. *Hepatology*. 2020;72:2228-2230.  
 Noureddin M, et al. *J Hepatol*. 2022;76:781-787.  
 Sterling RK, et al. *Hepatology*. 2006;43:1317-1325.