Tissue Elastography (Fibroscan) in the Assessment of Liver Fibrosis - Full Clinical Guideline

Reference no.: CG-GASTRO/2023/024

Tissue elastography (TE) measures the velocity of a low frequency (50Hz) elastic shear wave propagated through the liver. The stiffer (more fibrosed) the liver the faster the shear wave progression.

The patient should have fasted for at least 2 hours, as a large meal will increase blood flow in the liver and potentially falsely increase the liver stiffness measurement.

Trainees should not perform TE on a patient until they have received appropriate training.

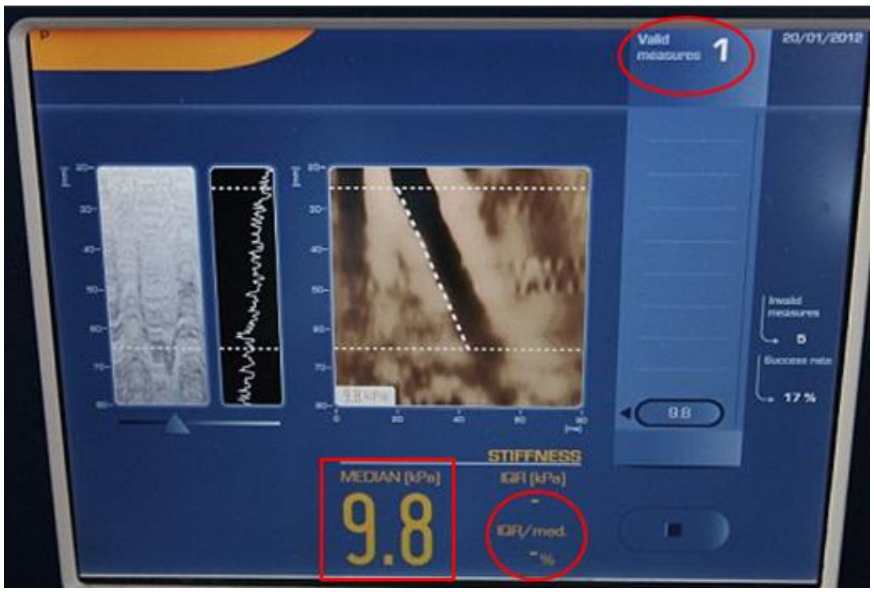
TE results are given as a median kPa. When interpreting the result the clinician should be aware that the reading may be falsely raised in the presence of ongoing excessive alcohol consumption, serum aminotransferase levels > 5 x ULN, extra-hepatic cholestasis and in right heart failure or other causes of hepatic congestion.

The M probe should be used in all patients, with the XL probe reserved for those patients with a raised BMI in whom no valid result can be obtained with the M probe. Be aware that the XL probe will in general give a slightly lower stiffness reading (Median 1.4kPa less).

Validity of result:
A reliable (valid) TE result requires:

- Number of valid shots ≥ 10
- IQR/ Median (variability of measurements) < 30%

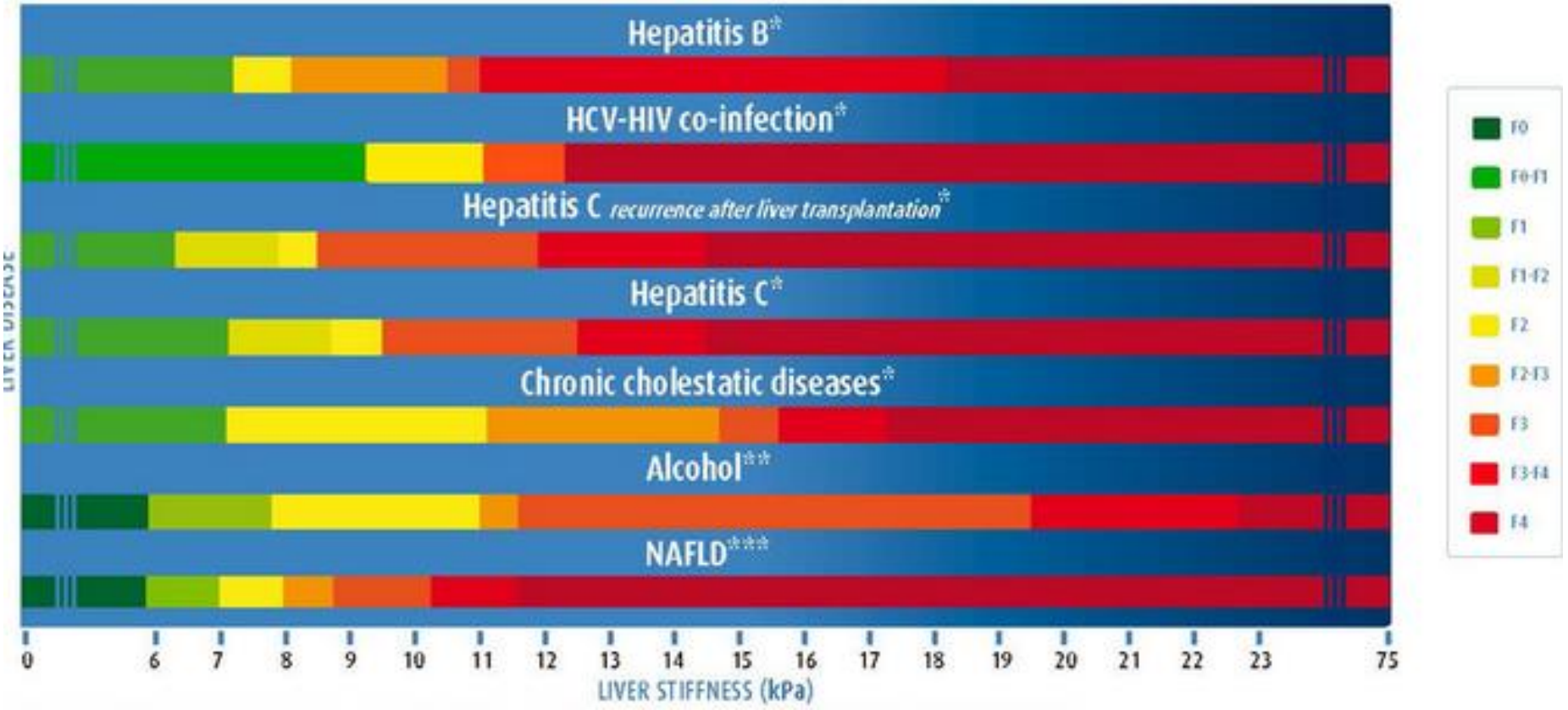
The failure rate is ≈ 3% and invalid results are obtained in 10-15% of patients



Interpreting the result:

TE is better at assessing for cirrhosis rather than significant fibrosis (≥ F2 on biopsy) (cirrhosis mean AUROC 0.94, ≥ F2 mean AUROC 0.84)

It is also better at ruling OUT than ruling IN cirrhosis: Negative predictive value 96% Positive predictive value 74%



Documentation Controls

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