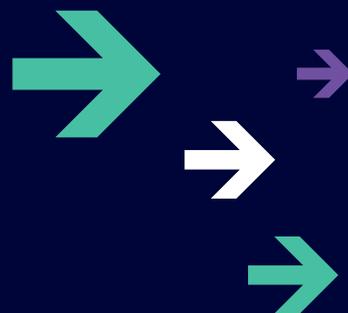


Key Takeaways: Assessing Liver Damage Caused by HCV Infection – Common Laboratory Tests

(Video 5.0)

HCV.com



AASLD-IDSA guidelines recommend that testing occurs within 6 months prior to starting DAA therapy and as part of on-going monitoring, depending on comorbidities and cirrhosis status¹



It is recommended to assess:

- **AST and ALT:** A ratio of AST:ALT >1 could suggest advanced fibrosis or cirrhosis²⁻⁵
- **Albumin:** Low levels of albumin in the blood (<3.4 g/dL) may indicate cirrhosis^{4,6,7}
- **Bilirubin:**
 - Increased direct bilirubin (normal range is 0–0.3 mg/dL) may indicate drug-induced liver injury, hepatocellular damage, intrahepatic cholestasis, or extrahepatic cholestasis⁸
 - Increased indirect bilirubin can indicate Gilbert's syndrome or Crigler–Najjar syndrome (type 1 and 2)⁸
 - Elevated total bilirubin may result in jaundice which could be indicative of advanced liver disease (normal range is 0.3–1.9 mg/dL)¹
- **Platelets:** A reduction in platelet count is common in chronic liver disease.^{9,10}

Mild	Platelet count 75,000/ μ L–150,000/ μ L
Moderate	Platelet count 50,000/ μ L–75,000/ μ L
Severe	Platelet count <50,000/ μ L

 - Platelet count <150,000/ μ L is known as thrombocytopenia^{10,11}
- **Prothrombin time (INR):** If patient is not taking blood-thinning medicines, the normal range for prothrombin time is 11 to 13.5 seconds and INR is 0.8 to 1.1. Prothrombin time may be increased if a patient has advanced fibrosis or cirrhosis^{11,12}

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It is important to remember that tests can vary in an individual over time and between labs, so a panel of tests should be used¹

Furthermore, these tests are not diagnostic of a specific condition but can be used to indicate problems with the liver



Common laboratory test results in liver disease

Liver condition or disease	Bilirubin	ALT and AST	Albumin	Prothrombin time
Acute liver damage (ie, infection-, toxin-, or drug-related)	Normal or increased usually after ALT/AST increases	Typically, greatly increased (ALT usually higher than AST)	Normal	Usually normal
Chronic liver disease	Normal or increased	Mildly or moderately increased	Normal	Normal
Cirrhosis	May be increased at a later point in the disease	AST typically higher than ALT; levels usually lower than in alcoholic disease	Normal or decreased	Usually prolonged

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