

Chronic HCV Infection: Pretreatment Assessment Guide

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Screening¹

One-time testing for HCV infection



All adults aged 18 years and older

Periodic repeat HCV testing and one-time HCV testing (individuals aged less than 18 years)



Persons with activities, exposures or conditions/ circumstances with an increased risk of HCV exposure

Prenatal HCV testing with each pregnancy



As part of routine prenatal care

Annual testing



All persons who inject drugs



HIV-infected men who have unprotected sex with men and men who have sex with men taking PrEP

See AASLD and IDSA guidelines for full details.



Diagnosis¹

Reflex testing: Diagnosis can be facilitated by automatically testing for HCV RNA on the same sample if the HCV antibody test is positive

A quantitative HCV RNA test to determine viral load is recommended prior to initiation of antiviral treatment

ICD-10 diagnosis codes²

- Acute hepatitis C: B17.1
- Chronic hepatitis C: B18.2
- Contact with and exposure to viral hepatitis: Z20.5

Codes	HCV antibody test with reflex to quantitative HCV RNA test	Quantitative HCV RNA test
CPT	86803 ³	87522 ³
Quest Diagnostics™	8472 ⁴	35645 ⁴
LabCorp	144050 ⁵	551300 ⁵



HCV antibody test

Detects HCV antibodies



Reactive

Does not distinguish between past exposure or current infection, means that the person was infected at some point in time⁶



HCV RNA test

Real-time PCR: A **qualitative** RNA test (to detect the presence or absence of HCV RNA) or a **quantitative** RNA test (to detect the amount of RNA) is recommended^{1,7}



HCV RNA detected

Diagnosis of current HCV infection^{1,7}



Non-reactive⁶

No HCV antibody detected
No exposure



Non-reactive⁶

No current HCV infection

Pretreatment assessments

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Simplified HCV treatment algorithm¹

Most patients are eligible for simplified HCV treatment

- ✓ Treatment-naïve adults with chronic hepatitis C without or with compensated cirrhosis (Child-Pugh A)

Characteristics of patients who are NOT eligible

- ✗ Prior HCV treatment
- ✗ HBsAg positive
- ✗ Currently pregnant
- ✗ Decompensated cirrhosis (current or prior; see next page)
- ✗ End-stage renal disease
- ✗ Prior liver transplant



Pretreatment assessments¹

Any time prior to starting antiviral therapy

HBV coinfection:

All patients should be tested for evidence of current or prior HBV infection (3-part HBV panel: HBsAg, HBsAb, HBcAb)⁸

Quantitative **HCV RNA** (HCV viral load)

HIV antigen/antibody test

HCV genotyping may be considered for those in whom it may alter treatment recommendations

- CPT code: 87902³
- Quest Diagnostics™ code: 37811⁴
- LabCorp code: 550475⁵

- Within **6 months** of initiating treatment in **non-cirrhotic** patients
- Within **3 months** of initiating treatment in **cirrhotic** patients

Hepatic function panel

- Alanine aminotransferase
- Aspartate aminotransferase
- Direct bilirubin
- Albumin
- Total bilirubin

International normalized ratio

Complete blood count

- Platelets

Calculated glomerular filtration rate

FIB-4⁹

Age (years) x AST (U/L)

Platelet count (10⁹/L) x $\sqrt{\text{ALT (U/L)}}$

FIB-4 >3.25¹⁰

- 55% sensitivity
- 92% specificity

for predicting cirrhosis

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Pretreatment assessments¹

Assessment for fibrosis/cirrhosis

✓ **FIB-4:**

A score of <3.25 is 92% predictive of not having cirrhosis (F0–F2)

If >3.25

✓ **APRI:**

A score ≤1 is 95% predictive of not having cirrhosis (F0–F2)

✓ **FibroSure®:**

A score of >0.74 indicates cirrhosis while a score of <0.56 is 97% predictive of not having cirrhosis

Codes:

- CPT: 81596¹¹
- Quest Diagnostic™: 92688⁴
- LabCorp: 550123⁵

✓ **FibroScan®:**

A liver stiffness score <12.5 kPa is 98% predictive of not having cirrhosis

- CPT code: 91200¹²

Assess whether compensated or decompensated cirrhosis

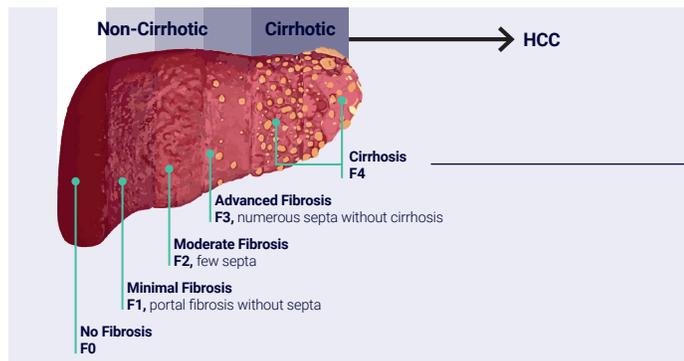
✓ **Ultrasound of the liver:**

Within 3 months of initiating treatment.
Evaluate to exclude HCC and subclinical ascites

✓ **Calculate Child-Turcotte-Pugh score^{13,14}**

Factor	1 point	2 points	3 points
Total bilirubin (mg/dL)	<2	2–3	>3
Serum albumin (g/dL)	>3.5	2.8–3.5	<2.8
Prothrombin time or INR	<4 <1.7	4–6 1.71–2.30	>6 >2.30
Ascites	None	Mild/moderate	Severe
Hepatic encephalopathy	None	Grade I–II (or precipitant-induced)	Grade III–IV (or chronic)

Liver fibrosis progression



Child-Pugh A (5–6 points)

Compensated cirrhosis

**Child-Pugh B (7–9 points)
Child-Pugh C (10–15 points)**

Decompensated cirrhosis*

*Patients require close monitoring and should be treated by experienced healthcare providers.¹ Not all FDA-approved treatments for chronic HCV infection are indicated in patients with Child-Pugh B/C.

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Pretreatment assessments¹

Additional consideration prior to treatment



Medication reconciliation

Record current medications, including over-the-counter drugs and dietary supplements



Concomitant medications

- Drug-drug interactions can be assessed using the AASLD/IDSA guidance or the University of Liverpool drug interaction checker
- In patients with HIV, the simplified treatment approach should not be used in those on TDF-containing regimens with eGFR <60 mL/min because of the need of additional monitoring



Patient counseling/education

- Educate the patient about proper administration of medications, adherence, and prevention of reinfection



Immunization

- Vaccination against HAV and HBV is recommended for all susceptible persons with HCV infection
- Vaccination against pneumococcal infection is recommended for all patients with cirrhosis

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Abbreviations

AASLD
American Association for the Study of Liver Diseases

APRI
aspartate aminotransferase to platelet ratio index

ALT
Alanine aminotransferase

AST
Aspartate aminotransferase

CDC
Centers for Disease Control and Prevention

CPT
Current Procedural Terminology

eGFR
estimated glomerular filtration rate

FDA
US Food and Drug Administration

FIB-4
fibrosis index based on 4 factors

HAV
hepatitis A virus

HBcAb
hepatitis B core antibody

HBsAb
hepatitis B surface antibody

HBsAg
hepatitis B surface antigen

HBV
hepatitis B virus

HCC
hepatocellular carcinoma

HCV
hepatitis C virus

HIV
human immunodeficiency virus

ICD
International Classification of Diseases

IDSA
Infectious Diseases Society of America

INR
International normalized ratio

PCR
Polymerase chain reaction

PrEP
pre-exposure prophylaxis

RNA
ribonucleic acid

TDF
tenofovir disoproxil fumarate