# Hepatitis C Virus (HCV) Diagnosis at a Glance

For most patients, a negative anti-HCV antibody result will not require additional testing.†

<table>
<thead>
<tr>
<th>Anti-HCV Antibody</th>
<th>HCV RNA</th>
<th>Interpretation</th>
<th>Action</th>
</tr>
</thead>
</table>
| Negative†         | Negative| • This patient is not infected with HCV⁴ | • No further testing needed  
• Continue to assess ongoing risk (eg, ongoing injection drug use)⁴  
• Counsel patient on how HCV can be transmitted¹,⁴ |
| Positive          | Positive| • This patient has chronic HCV infection⁴ | • Perform medical evaluation for chronic infection and liver disease¹  
• Administer hepatitis A and hepatitis B vaccines as appropriate*¹  
• Refer patient to experienced treater/hepatologist to explore management and treatment options¹  
• Counsel patient on alcohol reduction and how to avoid transmission to others¹,⁴ |
| Positive          | Negative| • This patient has cleared the infection (spontaneous for ~25% or with treatment)⁴ | • Remind patient that anti-HCV antibodies will not prevent reinfection¹  
• Consider retesting for HCV RNA in 4-6 months to confirm resolution of HCV infection⁴  
• Counsel patient on how HCV can be transmitted¹,⁴ |
| Negative¹         | Positive| • Early acute HCV infection (prior to antibody development)¹,⁴  
OR  
• HCV infection in severely immunocompromised setting (eg, HIV infection, organ transplant, chemotherapy)⁴ | • Perform medical evaluation for chronic infection and liver disease¹  
• Administer hepatitis A and hepatitis B vaccines as appropriate*¹  
• Refer patient to experienced treater/hepatologist to explore management and treatment options¹  
• Counsel patient on alcohol reduction and how to avoid transmission to others¹,⁴ |

*There is no vaccine available for HCV.
†For most patients, a negative anti-HCV antibody result will not require additional testing (no suspicion of acute infection or patients who are not severely immunocompromised).
HCV=hepatitis C virus; + = positive; − = negative; RNA = ribonucleic acid; HIV = human immunodeficiency virus.
Hepatitis C Virus (HCV) at a Glance

**Prevalence**
- HCV affects ~4 million people in the US, 75% of whom are undiagnosed.
- People born from 1945 through 1965 (baby boomers) account for 82% of HCV infection in the US.
- Being born from 1945 through 1965 or having elevated ALTs accounts for 90.5% of HCV infected individuals.

**Transmission of HCV**
- Transmitted through blood-to-blood contact.
- Individuals who engage in risky behaviors (e.g., ongoing injection drug use) are at higher risk of infection (see also Populations at Higher Prevalence below).
- Less commonly transmitted by sharing personal care items such as a razor or toothbrush.
- Casual contact (hugging, kissing, sharing food and water) or breast-feeding will not spread HCV.

**Populations at Higher Prevalence than the General Population**
- Many individuals do not report risk factors for HCV infection, often due to stigma.
- The most common populations with higher prevalence include:
  - Baby boomers (born from 1945 through 1965)
  - African Americans
  - Individuals with past or current injection drug use (even once many years ago)
  - Recipients of blood products or solid organ transplant before 1992
  - HIV-infected individuals
  - Individuals with unexplained abnormal liver enzyme test, even once (e.g., current or past elevated ALT)
  - Individuals engaging in high-risk sexual activity

**Symptoms and Complications of HCV**
- Over 70% of patients with acute HCV infection do not experience any symptoms, and are rarely diagnosed at infection.
- HCV-related liver complications may not show for decades. When symptoms occur (jaundice, variceal bleeding, hepatic encephalopathy, ascites, hepatocellular carcinoma, low platelets), they are often a sign of advanced liver damage.
- HCV is the leading cause of liver cancer (HCC) and the #1 indication for liver transplantation in the US.
- An estimated 800,000 people currently have cirrhosis.
- HCV mortality rate is similar to that from smoking.

Unlike HIV and Hepatitis B, HCV Is Curable
- Therapies exist that can clear the virus from the liver and bloodstream.
- When the virus is cleared from the blood and clearance is confirmed 6 months after treatment ends, a patient is considered cured (sustained virologic response, SVR).

**About the Anti-HCV Antibody and HCV RNA Tests**

**Anti-HCV Antibody Test**
- A positive anti-HCV antibody test indicates exposure to the hepatitis C virus.
  - Following exposure, it may take 4 to 10 weeks to generate antibodies against HCV at a detectable level
  - Anti-HCV antibodies are not protective against future HCV infection
  - If a patient tests positive for anti-HCV antibodies, an HCV RNA test should be performed to evaluate for chronic infection.
  - About 75% of infected individuals develop a chronic infection (HCV RNA test positive)
  - About 25% of individuals spontaneously clear the infection (HCV RNA test negative)

**HCV RNA Test**
- A positive HCV RNA test indicates current HCV infection.
  - Following infection, HCV RNA can be detected in the blood within 2 to 3 weeks
  - Patients with positive HCV RNA should be referred to a gastroenterologist/hepatologist experienced in treating HCV.
  - Examples of HCV RNA tests include (but are not limited to): COBAS TaqMan HCV, VERSANT HCV RNA TMA, COBAS Ampliprep HCV, COBAS AmpliPrep/TaqMan HCV

**Referral/Resources**
- Specialists can discuss management and treatment options. Refer patient to a gastroenterologist, hepatologist, infectious disease physician, or internist with experience in treating HCV.
- For more information, or to find a specialist in your area, visit:
  - CDC (www.cdc.gov/hepatitis/HCV/index.htm)
  - AASLD (http://aasld.org/PATIENTS/Pages/PhysicianReferralService.aspx)
  - ACG (http://patients.gi.org/)
  - AGA (https://secure.gastro.org/GLocator/locator.asp)

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