Hepatitis C Virus Screening and Diagnosis

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CDC Recommendations for HCV Screening

- **Universal HCV screening for all adults ≥18 years of age, regardless of risk factors.**
  - HCV screening for all pregnant persons during each pregnancy. *
  - One-time HCV testing, regardless of age, for persons with recognized risk factors or exposures.
  - Routine periodic testing for persons with ongoing risk factors for HCV.
  - Any person who requests HCV screening.

*Except for in settings where the prevalence of HCV RNA-positivity is <0.1%

The following groups should undergo one-time HCV testing regardless of age or setting prevalence:

1. Persons with HIV
2. Persons who have ever injected drugs
3. Prior recipients of transfusions (clotting factors prior to 1987; blood products prior to 1992) or organ transplants (prior to 1992)
4. Healthcare or public safety personnel following needle stick or mucosal exposure
5. Children born to mothers with HCV.
6. Persons with select medical conditions, including persons who ever received maintenance hemodialysis and persons with persistently elevated ALT

The following groups should undergo repeat periodic testing for HCV, typically performed yearly, while risk for HCV persists:

1. Persons who currently inject drugs and share any injection equipment
2. Persons with select medical conditions, including persons receiving maintenance hemodialysis

Additional Testing Recommendations from AASLD/IDSA

• In addition to groups recommended for risk-factor based testing by the CDC, the AASLD/IDSA guidance recommends one-time or periodic repeat testing (depending on persistence of risk) in the following groups:
  1. Persons with intranasal drug use
  2. Persons using glass crack pipes
  3. Men who have sex with men
  4. Persons engaging in chem sex

• Annual HCV testing for all:
  1. PWID
  2. HIV-positive MSM engaging in condomless sex
  3. MSM taking PrEP

HCV Diagnostic Tests

• Serologic antibody assays
  - Detect human antibodies to HCV
  - A positive test can indicate:
    1. Active infection
    2. Past HCV infection
    3. False positive

• Molecular HCV RNA tests
  - Detect HCV RNA
  - A positive test indicates active infection
Recommended Testing Sequence for Identifying Current HCV Infection

**HCV Antibody**

- **Nonreactive**
  - No HCV antibody detected
  - STOP*

- **Reactive**
  - HCV RNA
    - **Not Detected**
      - No current HCV infection
      - Additional testing as appropriate†
    - **Detected**
      - Current HCV infection
      - Link to care

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* For persons who might have been exposed to HCV within the past 6 months, testing for HCV RNA or follow-up testing for HCV antibody is recommended. For persons who are immunocompromised, testing for HCV RNA can be considered.

†To differentiate past, resolved HCV infection from biologic false positivity for HCV antibody, testing with another HCV antibody assay can be considered. Repeat HCV RNA testing if the person tested is suspected to have had HCV exposure within the past 6 months or has clinical evidence of HCV disease, or if there is concern regarding the handling or storage of the test specimen.

Source: Centers for Disease Control and Prevention
# Interpreting HCV Testing Results

<table>
<thead>
<tr>
<th>HCV Antibody</th>
<th>HCV RNA</th>
<th>Interpretation</th>
<th>Further Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive (+)</td>
<td>Positive (+)</td>
<td>Current, active HCV infection</td>
<td>Provide person with appropriate counseling and link to medical care and treatment</td>
</tr>
<tr>
<td>Positive (+)</td>
<td>Negative (-)</td>
<td>Prior exposure to HCV. No current HCV infection. Person either cleared HCV on their own or were successfully treated.</td>
<td>Educate person that they remain susceptible to HCV. No linkage to care required.</td>
</tr>
<tr>
<td>Negative (-)</td>
<td>Positive (+)</td>
<td>Acute HCV infection. Likely infected in the past 3mo.</td>
<td>Provide persons with appropriate counseling and link to medical care and treatment.</td>
</tr>
<tr>
<td>Negative (-)</td>
<td>Negative (-)</td>
<td>No HCV infection.</td>
<td>Educate person that they remain susceptible to HCV. No linkage to care required.</td>
</tr>
</tbody>
</table>
Key Messages for Persons Newly Diagnosed with HCV

• Contact a healthcare provider to discuss HCV treatment.
  – e.g., primary care clinician or a liver or infectious disease specialist

• Protect the liver from further harm by:
  – Considering HAV and HBV vaccination
  – Reduce or discontinue alcohol consumption
  – Avoid new medications or supplements without first discussing with a healthcare provider
  – Consider weight management or loosing weigh for persons with a BMI ≥25kg/m²

• Minimize the risk of transmission to others:
  – Do not share needles, injection works or other personal hygiene equipment that may be contaminated with blood (e.g., razors, toothbrushes)
  – Do not donate blood, tissue, or semen

Hepatitis C Online

A free educational website from the University of Washington Infectious Diseases Education & Assessment (IDEA) program

Contributors

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HCV Course Modules

Screening and Diagnosis of Hepatitis C Infection
For any clinician who may encounter persons with hepatitis C virus infection and would like to establish core competence in testing for hepatitis C, counseling patients on preventing hepatitis C transmission, and diagnosing acute hepatitis C infection.

Overview / Quick Reference
Rapidly access info about Screening and Diagnosis of Hepatitis C Infection

Self-Study 3rd Edition CNE/CME
Track your progress and receive CE credit

Clinical Challenges
Expert opinions for challenging and controversial cases

HCV Medications
Medication Summaries
Prescribing Information
Clinical Studies
Slide Decks

Learn about medications to treat HCV ➤

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