Recommendations for Hepatitis C Screening

This is a PDF version of the following document:
Module 1: Screening and Diagnosis of Hepatitis C Infection
Lesson 2: Recommendations for Hepatitis C Screening

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Current Hepatitis C Testing Recommendations

Several organizations have issued hepatitis C virus (HCV) screening recommendations. In general, major guidelines recommend routine one-time universal HCV testing for adults 18 years of age and older, routine HCV screening of pregnant women, screening younger persons at risk of acquiring HCV, and repeat screening for those with ongoing risk for HCV acquisition.

2020 CDC Recommendations for HCV Screening

On April 10, 2020, the Centers for Disease Control and Prevention (CDC) issued updated recommendations for hepatitis C screening among adults in the United States (Table 1).[1] The 2020 guidance augments prior CDC guidance on HCV screening with two new major recommendations: (1) all adults aged 18 years and older should have HCV screening at least once in their lifetime, except in settings where the prevalence of HCV infection is less than 0.1%, and (2) HCV screening should be performed for all pregnant women during each pregnancy, except in settings where the prevalence of HCV infection is less than 0.1%.[1] If risk factors for acquiring HCV are present, the CDC continues to recommend HCV screening regardless of age or prevalence of HCV in the setting. In addition, repeat periodic screening is recommended for persons who have ongoing risk for acquiring HCV.[1] These new CDC HCV screening recommendations expand prior guidance that recommended routine HCV screening for all persons born between 1945 and 1965.[1,2,3]

2020 USPSTF HCV Screening Recommendations

As of March 2020, the U.S. Preventive Services Task Force (USPSTF) recommends routine HCV screening for all adults in the United States who are 18-79 years of age, including pregnant women (USPSTF Screening for Hepatitis C Infection).[4,5,6] The 2020 USPSTF recommendation for HCV screening was categorized as a Grade B recommendation, which means that the USPSTF concludes with moderate certainty that screening for HCV in adults 18-79 years of age has substantial net benefit and that health care providers should offer this service (Table 2).[4,5,6] The USPSTF notes that most adults will require HCV screening only once, but those with ongoing risk of acquiring HCV will need periodic screening. For persons younger than 18 or older than 79 years of age, screening for HCV can be considered if the individual is considered at high risk for acquiring HCV.[4,5,6] The 2020 USPSTF recommendations for HCV screening are clearly a major change from the prior 2013 USPSTF recommendations to screen adults born during 1945-1965 and those with known risk.[7,8]

AASLD/IDSA HCV Testing Guidance

The American Association for the Study of Liver Diseases (AASLD) and Infectious Diseases Society of America

(IDSA) guidance for hepatitis C addresses HCV testing in the section HCV Testing and Linkage to Care.[9] The AASLD/IDSA recommends (1) one-time, routine, opt-out HCV testing for all individuals aged 18 years and older, (2) one-time testing for persons younger than age 18 who have increased risk for acquiring HCV, (3) routine prenatal HCV testing for all pregnant women during each pregnancy, (4) periodic testing for persons who have risk activity for acquiring HCV, and (5) annual testing for men with HIV who have condomless sex with men; men who have sex with men and are tkaing HIV preexposure prophylaxis (PrEP); and people who inject drugs (PWID).[9]

Rationale for Expanded HCV Screening of All Adults

Since the release of the 2012 CDC birth cohort (1945-1965) HCV screening recommendations, several key factors, as outlined below, have emerged that catalyzed the updated recommendations to expand HCV screening in the United States.[10,11,12]

- **Changing HCV Epidemiology in the United States**: In recent years, there has been a major surge in new cases of HCV in the United States (Figure 1).[13] The reasons for this increase are complex, but the opioid epidemic has played a major role.
- **Increase Case Numbers Involving Young Adults**: The increase in cases has disproportionately involved younger adults (Figure 2), primarily young adults with opioid dependence and associated injection drug use.[13,14,15] Use of the older screening recommendations (routine testing of persons born in the years 1945-1965) does not effectively screen for young individuals with HCV, unless they disclose their injection drug use.
- **High Cure Rate with DAA Therapy**: Newer direct-acting antiviral (DAA) therapy used to treat HCV has proven extraordinarily effective, with 8- or 12-week oral regimens showing an excellent safety profile and cure rates that exceed 98%.[16]
- **Impact of Treatment on HCV Natural History**: Extensive data have shown that achieving a sustained virologic response (SVR) with HCV treatment, which occurs in more than 98% of patients who receive recommended DAA regimens, is associated with major decreases in hepatocellular carcinoma, liver-related mortality, and all-cause mortality.[5,17,18]
- **Lower Cost of DAA Regimens**: Recent competitive market forces have significantly driven down the cost of HCV treatment. During the time period around 2015, the typical cost for an HCV treatment course with DAAs, such as ledipasvir-sofosbuvir, was approximately $84,000. Several years later, the pangenotypic, highly effective glecaprevir-pibrentasvir regimen became available at a substantially lower cost.[12]
- **Potential Public Health Benefit**: The concept of HCV treatment as prevention is based on the fundamental principle that persons with HCV who are treated and cured will not transmit HCV to others. Although clinical studies have not yet established the public health benefit of hepatitis C treatment as prevention, multiple mathematical modeling studies have concluded that treatment as prevention would have a major role in controlling (and eventually eliminating) HCV.[19,20,21,22] In recent years, several countries have initiated formal national HCV elimination plans using treatment as prevention as a key component of these plans.[23,24]

HCV Testing for Infants and Children Exposed to HCV

Recommendations for Testing in Perinatally Exposed Infants and Children

The 2023 CDC guidance recommends that all perinatally exposed infants and children be tested for HCV.[25] In these guidelines, the CDC defines perinatally exposed infants and children as those born to pregnant women with current (positive HCV RNA during pregnancy) or probable (reactive anti-HCV testing with no available HCV RNA results) HCV infection.[25] For perinatally exposed infants and children, the CDC specifically recommends:[25]

1. HCV RNA testing at age 2–6 months of age (preferred window for testing) (Figure 3). Note, no further follow-up is needed after a negative HCV RNA that is performed at age 2–6 months, unless clinically warranted (i.e., clinical symptoms or signs or laboratory findings consistent with hepatitis C).
2. Infants and children with a positive HCV RNA test should be managed in consultation with a provider experienced in pediatric HCV management.
3. Infants and children with undetectable HCV RNA do not have a current HCV infection and do not require further testing.
4. Infants and children 7–17 months of age who were not previously tested should undergo HCV RNA testing.
5. Children 18 months of age and older who were not previously tested should undergo anti-HCV testing with reflexive HCV RNA.

Rationale for Testing Perinatally Exposed Infants and Children

Rates of chronic HCV among women of childbearing age have risen substantially over the past 2 decades, and routine HCV screening is now recommended for pregnant women during each pregnancy.[1,26] Among perinatally exposed children, an estimated 6-7% will acquire HCV; however, under prior testing guidance, nearly 70% of perinatally exposed children 18 months of age and older were not receiving recommended anti-HCV testing.[25] Testing perinatally exposed infants and children early in life streamlines HCV testing recommendations with standard schedules for well-child visits and limits the number of infants and children who are lost to follow-up.[25] Furthermore, through increased detection of perinatally acquired HCV infection, more children can be offered curative treatment, which is approved starting at age 3 years.[25]

Summary Points

- The CDC recommends universal HCV screening at least once in a lifetime for all adults 18 years of age and older and HCV screening for all pregnant women during each pregnancy; these recommendations do not apply to regions that have an HCV prevalence of less than 0.1%.
- The CDC recommends one-time HCV testing regardless of age or setting prevalence in persons with a recognized risk for acquiring HCV.
- The CDC recommends periodic retesting for HCV in persons with ongoing risk for acquiring HCV.
- The USPSTF recommends routine screening for all adults in the United States 18–79 years of age, including pregnant women. Persons outside the 18-79 age range should have HCV testing if they have risk factors for acquiring HCV infection.
- The USPSTF recommends periodic screening for HCV in persons who have continued risk of acquiring HCV infection.
- The AASLD/IDSA recommends one-time, routine, opt-out HCV testing for all individuals aged 18 years and older, one-time testing for persons younger than age 18 who have increased risk of acquiring HCV, and routine perinatal testing for pregnant women during each pregnancy.
- The AASLD/IDSA recommends periodic testing for persons who have risk activity for acquiring HCV, including the recommendation to perform annual HCV testing for men with HIV who have condomless sex with other men, men who have sex with men who are taking HIV preexposure prophylaxis, and persons who inject drugs.
- Multiple factors have led to the recommendation to provide universal HCV screening in the United States; these factors include increases in HCV cases among young adults, availability of highly effective treatment for HCV, decreases in the cost of HCV therapy, and potential public health transmission benefits associated with more treatment.
- The CDC recommends HCV testing of all perinatally exposed infants with a nucleic acid test (NAT) for detection of HCV RNA at age 2–6 months.
- The CDC recommends using a NAT for HCV RNA for testing of perinatally exposed infants and children aged 7–17 months who have not been previously tested. Perinatally exposed children aged 18 months of age and older who have not been tested previously for HCV, should have testing with an hepatitis C virus antibody (anti-HCV) test, followed by a reflex NAT for HCV RNA (when anti-HCV is reactive).

Citations

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Figures

Figure 1 Estimated Number of Acute Hepatitis C Cases, United States, 2010-2021

Source: Centers for Disease Control and Prevention (CDC). 2021 Viral Hepatitis Surveillance Report—Hepatitis C. Published August 2023.

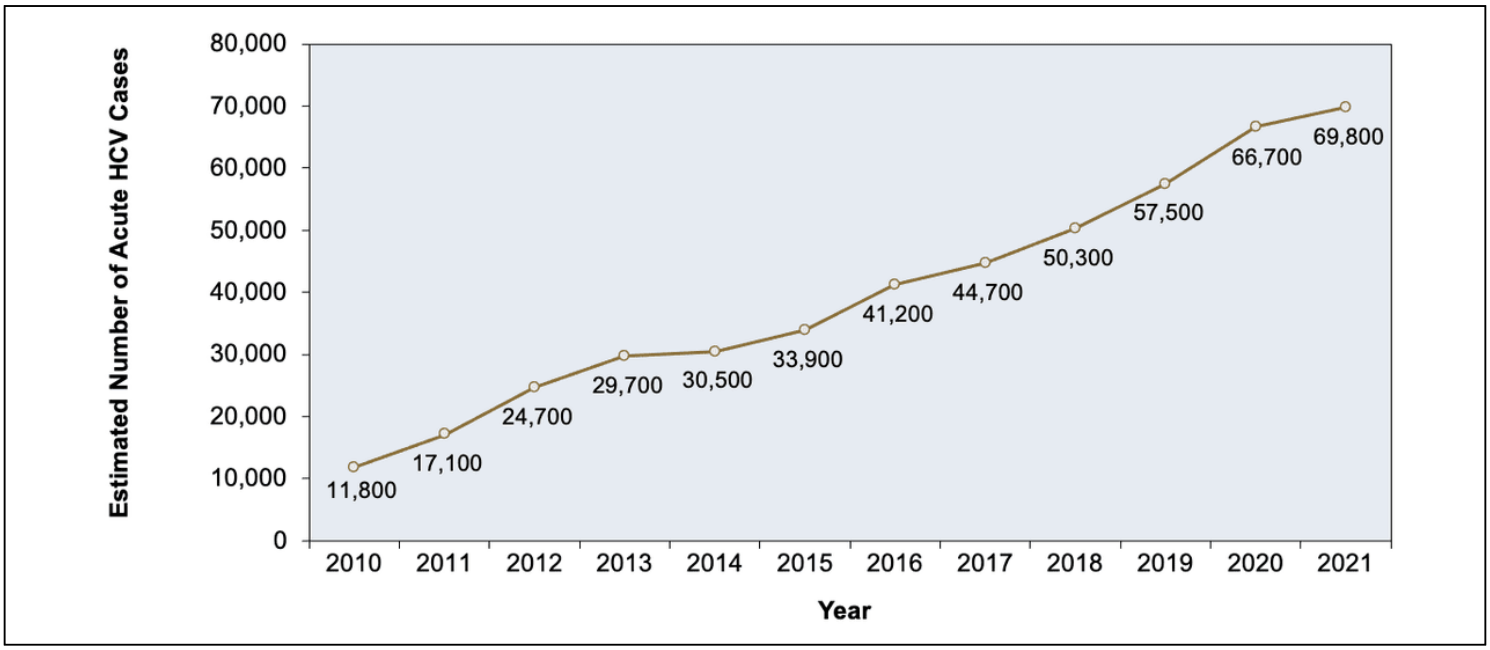

Figure 2 Reported Rate of Cases of Acute Hepatitis C, by Age Group, United States, 2021

Source: Centers for Disease Control and Prevention (CDC). 2021 Viral Hepatitis Surveillance Report—Hepatitis C. Published August 2023.

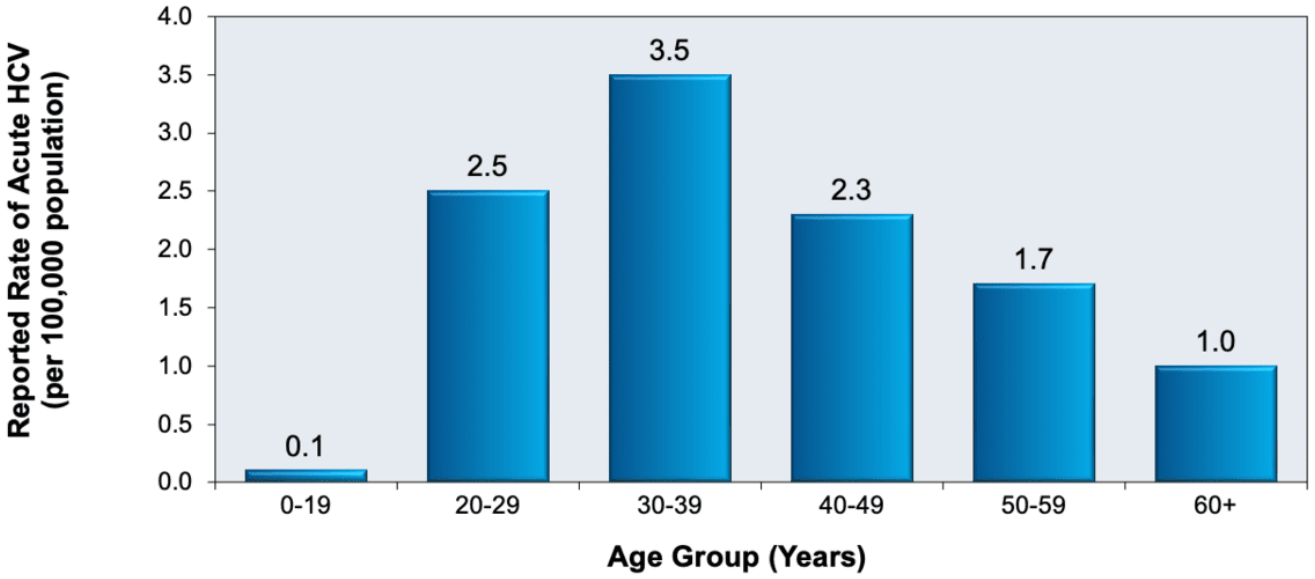

Figure 3 Algorithm for HCV Testing of Perinatally Exposed Children, United States, 2023

Abbreviations: NAT = nucleic acid test.

Source: Panagiotakopoulos L, Sandul AL, Conners EE, Foster MA, Nelson NP, Wester C. CDC Recommendations for Hepatitis C Testing Among Perinatally Exposed Infants and Children - United States, 2023. MMWR Recomm Rep. 2023;72:1-21.

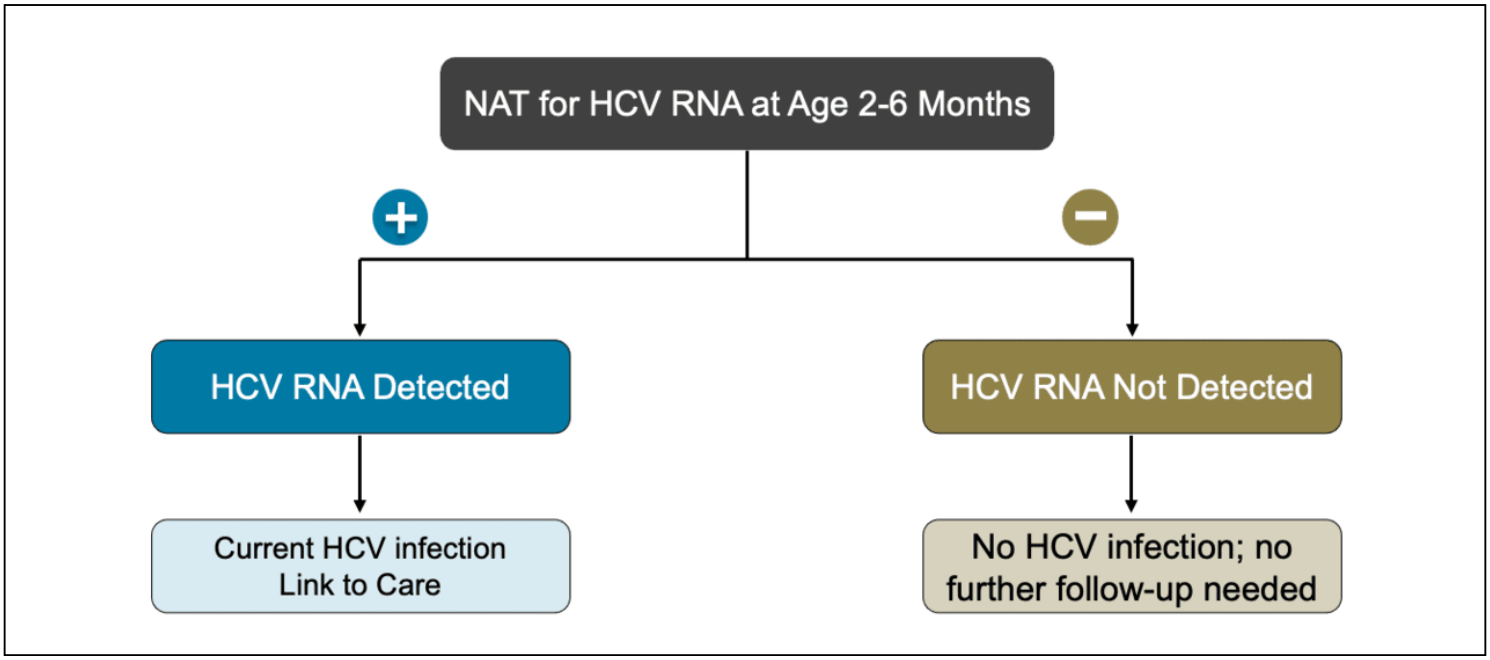

Table 1.

CDC Recommendations for Hepatitis C Screening Among Adults — United States

Persons Recommended for Screening
Universal hepatitis C screening: • Hepatitis C screening at least once in a lifetime for all adults aged ≥18 years, except in settings where the prevalence of HCV infection (HCV RNA-positivity) is <0.1% • Hepatitis C screening for all pregnant women during each pregnancy, except in settings where the prevalence of HCV infection (HCV RNA-positivity) is <0.1%
One-time hepatitis C testing regardless of age or setting prevalence among persons with recognized risk factors or exposures: • Persons with HIV • Persons who ever injected drugs and shared needles, syringes, or other drug preparation equipment, including those who injected once or a few times many years ago • Persons with selected medical conditions, including persons who ever received maintenance hemodialysis and persons with persistently abnormal alanine aminotransferase (ALT) levels • Prior recipients of transfusions or organ transplants, including persons who received clotting factor concentrates produced before 1987, persons who received a transfusion of blood or blood components before July 1992, persons who received an organ transplant before July 1992, and persons who were notified that they received blood from a donor who later tested positive for HCV infection • Health care, emergency medical, and public safety personnel after needlesticks, sharps, or mucosal exposures to HCV-positive blood • Children born to mothers with HCV infection
Routine periodic testing for persons with ongoing risk factors, while risk factors persist: • Persons who currently inject drugs and share needles, syringes, or other drug preparation equipment • Persons with selected medical conditions, including persons who ever received maintenance hemodialysis
Any person who requests hepatitis C testing should receive it, regardless of disclosure of risk, because many persons might be reluctant to disclose stigmatizing risks

Source:

- Schillie S, Wester C, Osborne M, Wesolowski L, Ryerson AB. CDC Recommendations for Hepatitis C Screening Among Adults - United States, 2020. MMWR Recomm Rep. 2020;69:1-17. [PubMed Abstract]

Table 2. **U.S. Preventive Services Task Force (USPSTF)**

USPSTF Grade Recommendations

Grade	Definition	Suggestions for Practice
A	The USPSTF recommends the service. There is high certainty that the net benefit is substantial.	Offer or provide this service.
B	The USPSTF recommends the service. There is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial.	Offer or provide this service.
C	The USPSTF recommends selectively offering or providing this service to individual patients based on professional judgment and patient preferences. There is at least moderate certainty that the net benefit is small.	Offer or provide this service for selected patients depending on individual circumstances.
D	The USPSTF recommends against the service. There is moderate or high certainty that the service has no net benefit or that the harms outweigh the benefits.	Discourage the use of this service.
I	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of the service. Evidence is lacking, of poor quality, or conflicting, and the balance of benefits and harms cannot be determined.	Read the clinical considerations section of USPSTF Recommendation Statement. If the service is offered, patients should understand the uncertainty about the balance of benefits and harms.

Source:

- U.S. Preventive Services Task Force. Final Recommendation Statement. Hepatitis C: Screening. March 2, 2020. [USPSTF]
- US Preventive Services Task Force, Owens DK, Davidson KW, et al. Screening for Hepatitis C Virus Infection in Adolescents and Adults: US Preventive Services Task Force Recommendation Statement. JAMA. 2020;323:970-5. [PubMed Abstract]