



City Health Information

March 2006

The New York City Department of Health and Mental Hygiene

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Diagnosing and Managing Hepatitis C

- Ask every patient about risk factors for hepatitis C; test patients who are at high risk for infection.
- Counsel patients to prevent the spread of infection and to slow the progression of disease.
- Use appropriate hepatitis C screening and diagnostic tests, recognize contraindications to treatment, and refer patients for specialty care when appropriate.

Hepatitis C virus (HCV), most commonly contracted through sharing contaminated needles and syringes, is the most prevalent bloodborne infection in the US. Almost 2% of adults in the US are infected with HCV, and infection levels are now highest in people in their late 40s.^{1,2} While new infections are declining steadily, the prevalence of liver disease caused by HCV is still rising due to the time lag between the onset of infection and clinical manifestations.

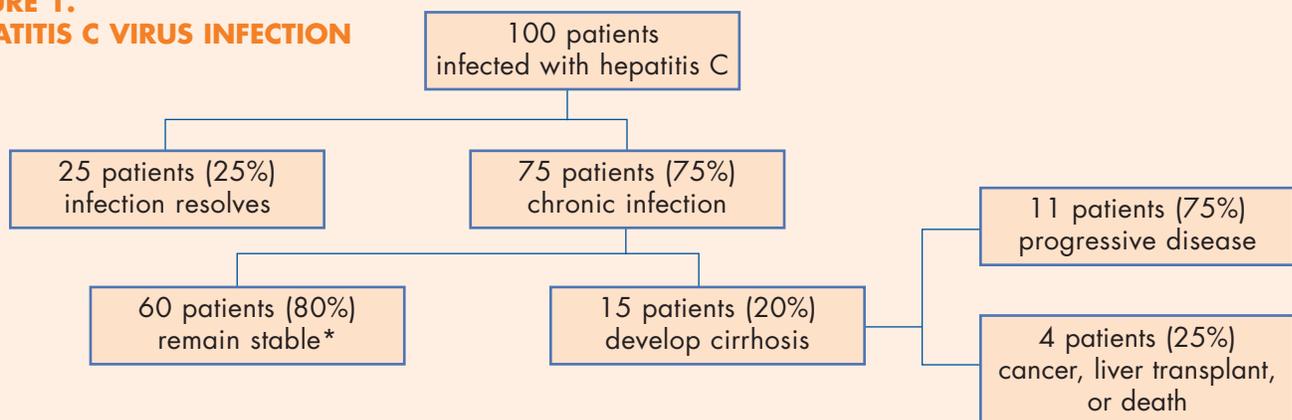
Because there are not enough specialists to care for everyone infected with HCV, much of the care for these patients is shifting to primary care providers. Therefore, primary care providers need to be able to screen, diagnose, and care for HCV-infected patients, and to recognize which patients should be referred to a specialist.

Clinical Features and Natural History

Acute infection: Most people with acute HCV infection are asymptomatic or have a mild clinical illness. Symptoms of acute infection, which may last for 2 to 12 weeks, include fatigue, nausea, and abdominal pain. Jaundice occurs in less than 25% of acutely infected patients. Approximately 70% of patients have hepatitis C antibody (anti-HCV) within 12 weeks of onset of symptoms.

About 75% of infected persons develop chronic infection; of these, approximately 80% remain asymptomatic but have persistently abnormal or fluctuating alanine aminotransferase (ALT) levels. The remaining 20% will develop cirrhosis over the next 20 to 30 years. Up to 25% of individuals who develop cirrhosis will develop hepatocellular

FIGURE 1.
HEPATITIS C VIRUS INFECTION



*A very small percentage of patients who are chronically infected with HCV, but do not have cirrhosis, develop hepatocellular carcinoma.³

TABLE 1. EXTRAHEPATIC MANIFESTATIONS OF HEPATITIS C INFECTION**Autoimmune disorders**

- Idiopathic thrombocytopenic purpura
- Hypothyroidism
- Sialoadenitis

Dermatologic disorders

- Leukocytoclastic vasculitis
- Lichen planus
- Porphyria cutanea tarda

Hematologic disorders

- B cell non-Hodgkin's lymphoma
- Essential mixed cryoglobulinemia
- Monoclonal gammopathies

Renal disorders

- Membranoproliferative glomerulonephritis
- Membranous glomerulonephritis

Ophthalmologic disorders

- Corneal ulcers
- Keratoconjunctivitis sicca
- Scleritis
- Uveitis

Neurological disorders

- Neuropathy

carcinoma (HCC). Once cirrhosis is established, HCC develops at a rate of 1% to 4% per year (Figure 1).

Association with other diseases: HCV infection is associated with many extrahepatic manifestations (Table 1). Because HCV infection may not be suspected for several years, providers should be alert to the possibility of HCV infection in patients with these conditions and should ask about HCV risk factors.

Screening Recommendations

Nearly a third of primary care providers are not testing patients with clearly identified risk factors for HCV (Table 2).⁴ **Providers should ask patients about risk factors for HCV, and should offer testing for patients at high risk of infection.** Testing is *not* necessary for the general population, pregnant women, non-sexual household contacts of persons infected with HCV, or healthcare workers without evidence of exposure. **All patients with HCV exposure or infection should be tested for HIV, and all patients with HIV exposure or infection should be tested for HCV.**

Providers may also wish to screen some patients with risk factors for HCV that have not yet been clearly established, especially if these persons ask to be tested. These less well identified risk factors include: intranasal cocaine use, a history of tattoos, body piercing, and sexual contact with HCV-infected persons. Providers must carefully evaluate potential risk factors to guide testing decisions.

HCV Testing and Follow-up Management

Patients at high risk for HCV should be tested by their primary care providers for anti-HCV using the enzyme immunosorbent/enzyme-linked immunoassay (EIA/ELISA) test. Providers should be aware that there are high rates of both false positive and false negative results among certain patient populations (Table 3). Additionally, a positive antibody test result only informs the provider that the patient has been exposed to HCV, but cannot distinguish among acute, chronic, or resolved infections.

The provider should order a *qualitative* viral RNA test if the patient tests positive for HCV antibody, or if the patient

TABLE 2. INDICATIONS FOR SCREENING FOR HEPATITIS C INFECTION

- Persons who ever injected illicit drugs, even once many years ago
- Persons with HIV
- Certain recipients of transfusions or organ/tissue transplants, including:
 - Persons who received blood from a donor who later tested positive for HCV infection
 - Persons who received a transfusion of blood or blood products before July 1992
 - Persons who received an organ transplant before July 1992
- Persons who received clotting factor concentrates before 1987
- Persons who received immune globulin products before December 1994
- Persons who were ever on hemodialysis
- Children born to mothers infected with HCV
- Health care workers or others after percutaneous or mucosal exposure to HCV-infected blood
- Persons with persistently elevated ALT levels or other evidence of liver disease

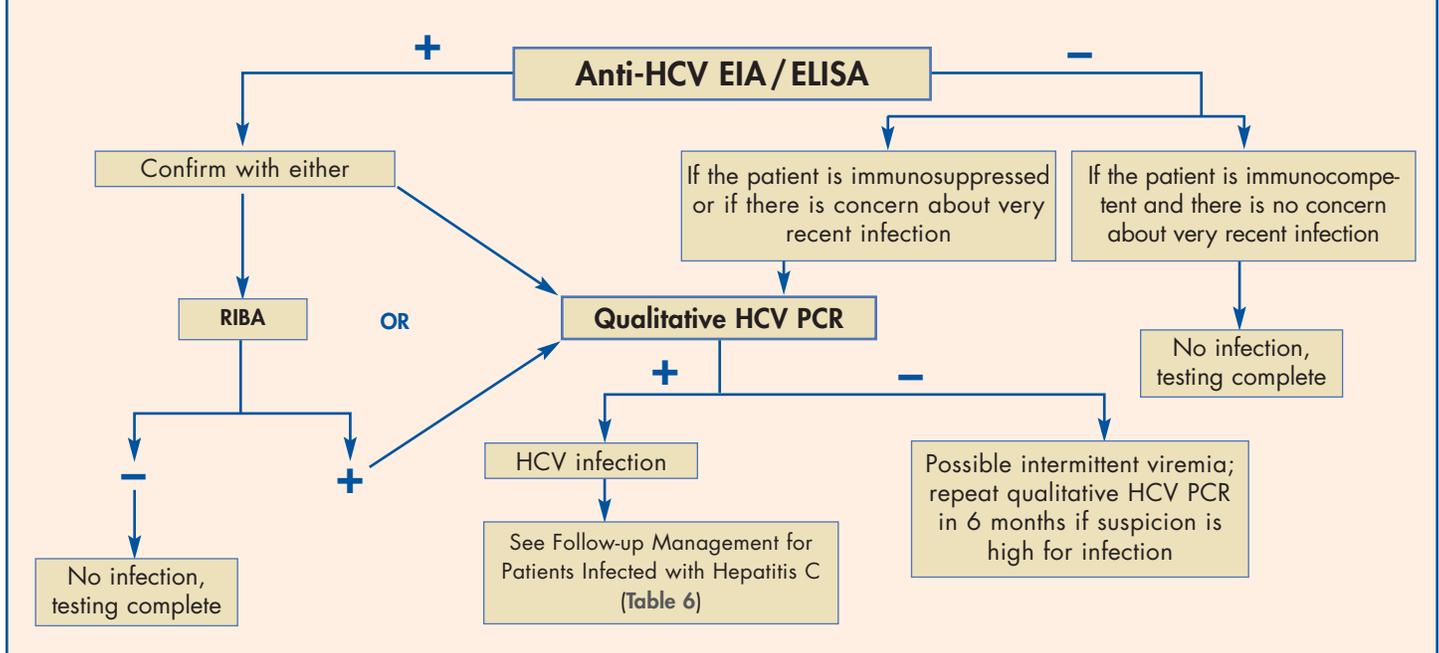
TABLE 3. TYPES OF TESTS AVAILABLE TO ASSESS HEPATITIS C INFECTION

Test Type	Test	Key Points
<p>DETECTS THE PRESENCE OF ANTIBODY (ANTI-HCV)</p> <ul style="list-style-type: none"> A positive test result indicates infection, but does not distinguish between acute, chronic, or resolved infection. If concerned about a possible false negative result, follow up test with a qualitative HCV RNA assay. 	<p>EIA/ELISA</p>	<ul style="list-style-type: none"> This test is ordered first to screen for HCV infection. All positive tests must be confirmed with a RIBA or a qualitative HCV RNA test. High false positive rates occur in patients with: <ul style="list-style-type: none"> underlying autoimmune disease; hypergammaglobulinemia; low-risk status. High false negative rates occur in patients with: <ul style="list-style-type: none"> immunosuppression; new infection if patients have not yet developed antibodies to the virus (first 3 months after exposure).
	<p>RIBA (recombinant immunoblot assay)</p>	<ul style="list-style-type: none"> This test is used to confirm positive EIA/ELISA. High false negative rates occur in patients with: <ul style="list-style-type: none"> immunosuppression; new infection if patients have not yet developed antibodies to the virus (first 3 months after exposure). This test is not affected by the presence of an autoimmune disease or hypergammaglobulinemia. If positive, should be followed up with a qualitative HCV RNA test. A positive RIBA and two or more tests in which HCV RNA cannot be detected indicates a resolved infection.
<p>DETECTS THE PRESENCE OF VIRUS</p> <p>The patient is infected with HCV if either type of test has a positive result, regardless of the result of antibody testing.</p>	<p>Qualitative* — detects HCV RNA in the blood using amplification techniques such as PCR or transcription-mediated amplification (TMA).</p>	<ul style="list-style-type: none"> This test is more sensitive than quantitative tests. This test detects the presence of virus as early as 1–2 weeks post-exposure. Intermittent viremia may cause a false negative test result. Providers should test patient again in 6 months if suspicion is high for infection.
	<p>Quantitative** — measures quantity of HCV RNA in the blood using either PCR or TMA or signal amplification techniques (branched DNA assay).</p>	<ul style="list-style-type: none"> Changes in the HCV RNA level are used to monitor treatment response; it is important to obtain the viral level before starting treatment, and to use the same test to monitor response to therapy. This test is not as sensitive as qualitative tests. It should not be used to exclude the diagnosis of HCV infection.

*Qualitative tests — FDA-approved PCR tests: Amplicor™ Hepatitis C Virus Test; Cobas Amplicor™ Hepatitis C Virus Test; FDA-approved TMA test: VERSANT® HCV RNA Qualitative Assay

**Quantitative test — FDA-approved test: VERSANT® HCV RNA

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FIGURE 2. HEPATITIS C VIRUS DIAGNOSTIC TESTING ALGORITHM

may have early infection, HIV, or is otherwise immunocompromised (Figure 2). Qualitative viral RNA tests are more sensitive than the quantitative tests and should be used to confirm infection. Providers should not use qualitative testing as the initial HCV screening test because antibody testing is more cost effective. Qualitative test results help determine if the patient has cleared the infection (Table 4).

Quantitative viral RNA tests measure the amount of the virus in the blood and are used to assess the likelihood of response to treatment. Low viral load is associated with a better treatment response.⁵ Levels are checked during pharmacologic therapy to monitor treatment response.⁵ This test should only be ordered for patients if treatment is not contraindicated (Table 8).

Counseling

Discuss HCV prevention before and after testing, and regardless of test results. Clarify how HCV is transmitted and how to avoid future exposures (Table 5).

Referring Patients to a Specialist

When a patient is diagnosed with chronic HCV infection, the primary care provider should take the steps outlined in Table 6. These steps include counseling, further diagnostic and screening tests, and vaccination. Patients with chronic HCV infection who have no contraindications to therapy and would like to be considered for treatment should be referred to either a gastroenterologist or an infectious diseases specialist. If primary care providers are aware

TABLE 4. INTERPRETATION OF TEST RESULTS

EIA/ELISA	RIBA	QUALITATIVE TEST	INTERPRETATION
-	-	Undetectable	No past or present infection
+	-	Undetectable	False positive EIA/ELISA, no past or present infection
+	+	Undetectable	Probable past exposure with clearance of infection Repeat qualitative RNA test in 6 months to exclude fluctuating low levels of viremia
+	+	Detectable	Current infection
-	-	Detectable	Acute infection or current infection in an immunocompromised person unable to make adequate antibodies

TABLE 5. WHAT TO TELL PATIENTS ABOUT HEPATITIS C

ALL PATIENTS: HEPATITIS C TRANSMISSION AND PREVENTION	PATIENTS WITH HEPATITIS C INFECTION: ADDITIONAL INFORMATION
<ul style="list-style-type: none"> • HCV is transmitted through direct blood contact. Any activity that lets one person's blood come into contact with another person's blood can transmit HCV. • There is no vaccine to prevent HCV. • Do not inject street drugs (Table 9). The most common way to get HCV is by injecting street drugs. • Do not share your drug equipment (Table 9). • Do not share personal care items that might have blood on them (e.g., razors, toothbrushes). • If you are a healthcare or public safety worker, always follow standard precautions and safely handle needles and other sharps; get vaccinated against hepatitis B. • Only get tattoos or body piercing by a licensed tattoo artist who uses a new needle and ink pot for every client. • HCV can be spread by sex, but this is rare. If you are having sex with more than one partner, use latex condoms correctly and every time to prevent the spread of sexually transmitted diseases. 	<ul style="list-style-type: none"> • Eliminate or reduce alcohol consumption (or decrease amount if unwilling or unable to stop drinking).^{6,7} • Do not donate blood, organs, tissue, or semen. • Get tested and vaccinated against hepatitis A and B. • Get tested for HIV. • Talk to your doctor before taking any new medications, including over-the-counter (e.g., Tylenol®) and herbal medicines. • Discuss with your sex partner the low, but not absent risk of transmitting HCV infection. If you want to lower the small chance of spreading HCV to your partner, you may decide to use barrier precautions such as latex condoms. The efficacy of latex condoms in preventing infection with HCV is unknown, but their proper use is likely to reduce transmission. • There is no evidence on whether or not HCV infection can be spread through oral sex.

of the most current pharmacologic recommendations and feel comfortable managing the patient, they may initiate therapy. In addition, primary care providers should also refer patients with decompensating liver disease, varices, ascites, encephalopathy, and those coinfecting with HBV,

HIV, or another disease that may adversely affect the liver. Approximately 10% of HCV-infected patients are coinfecting with HIV.⁸ Patients coinfecting with HCV and HIV are at risk for rapid progression to liver damage, and many HIV medications can cause liver injury.

TABLE 6. FOLLOW-UP MANAGEMENT FOR PATIENTS INFECTED WITH HEPATITIS C

<p>Counsel patients on:</p> <ul style="list-style-type: none"> • Preventing transmission of HCV (Table 5) • Avoiding alcohol • Avoiding hepatotoxic medications (including high doses of Tylenol®) <p>Order the following tests:</p> <ul style="list-style-type: none"> • Baseline liver transaminases, INR, urinalysis, and albumin* • Hepatitis A and hepatitis B antibody tests and hepatitis B surface antigen to determine patient immunity • HIV, with patient consent (see Making HIV testing a routine part of medical care. <i>City Health Information</i>. 2006;25(2)9-12 available at www.nyc.gov/html/doh/downloads/pdf/chi/chi25-2.pdf) • Hepatitis C genotype • Liver sonogram to assess for cirrhosis. If the patient has cirrhosis, check alpha-fetoprotein level to evaluate risk for hepatocellular carcinoma 	<p>Administer the following vaccines:</p> <ul style="list-style-type: none"> • Hepatitis A and hepatitis B vaccine if patient is not immune • Pneumococcal vaccine if patient has not already been vaccinated • Influenza vaccine annually if patient is aged ≥50 years or has other indications for vaccination (see Influenza: prevention and control, 2005–2006. <i>City Health Information</i>. 2005;24(6):35-38 available at www.nyc.gov/html/doh/downloads/pdf/chi/chi24-6.pdf) <p>Determine with patient if the patient is a candidate for therapy:</p> <ul style="list-style-type: none"> • If patient is a potential candidate, check a baseline quantitative HCV RNA • Refer to a specialist for further management (gastroenterology/hepatology or infectious diseases)
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*Continue to monitor the patient's liver enzymes. Common practice is to test every 3–6 months, more frequently with progressive or accelerated liver injury.

TABLE 7. TREATMENT RESPONSE DEFINITIONS

TREATMENT RESPONSE	DEFINITION
Sustained Virologic Response	<ul style="list-style-type: none"> • Absence of HCV RNA in the serum at the end of treatment and 6 months later • Infection is considered eradicated
Relapse	<ul style="list-style-type: none"> • HCV RNA becomes undetectable on treatment, but is detected again when therapy is discontinued
Non-responders	<ul style="list-style-type: none"> • Persons in whom HCV RNA levels remain stable on treatment
Partial responders	<ul style="list-style-type: none"> • Persons in whom HCV RNA levels decline, but never become undetectable

Genotype predicts the likelihood of treatment response. The decision to pursue therapy is based, in part, on knowing the genotype. There are 6 major genotypes. Type 1 is the most prevalent type in the US and is less likely to respond to current treatment. Types 2 and 3 have a higher likelihood of response to treatment.

The role of a liver biopsy in the management of HCV remains controversial. Liver biopsy reveals the extent of fibrosis caused by chronic infection. The extent of fibrosis is used to predict progression of disease; thus, the damage revealed by biopsy is used to determine the urgency of treatment. Deaths due to complications of liver biopsy occur in about 1 per every 10,000 procedures.

Screening for Hepatocellular Carcinoma

There is a high incidence of HCC in HCV-infected patients with cirrhosis, and appropriate screening strategies are not yet clear. As of February 2005, the National Cancer Institute noted that there was still “inadequate evidence to

suggest that screening would result in a decrease in mortality from hepatocellular cancer.”⁹ At present, despite the lack of firm evidence for efficacy of surveillance, it remains standard practice to screen for HCC.¹⁰

Pharmacologic Therapy

The ultimate goal of treatment is sustained virologic response (SVR), which is associated with a decreased risk for liver-related death and overall mortality (Table 7).¹¹

The treatment of choice for HCV-infected patients is the combination of pegylated interferon and ribavirin. Pegylated interferon is administered subcutaneously; ribavirin is taken orally. The best predictors of SVR are infection with HCV genotype 2 or 3, and a low pretreatment viral load.

Adverse events associated with interferon include flu-like symptoms early in treatment, depression, fatigue, concentration and memory disturbances, neutropenia, thrombocytopenia, hypo- and hyperthyroidism, retinal disturbance, interstitial pulmonary fibrosis, and suicidal ideation. Adverse effects

TABLE 8. CONTRAINDICATIONS TO THERAPY

- Uncontrolled, major depressive disorder*
- Transplant recipient: kidney, heart, or lung
- Any condition known to be exacerbated by interferon or ribavirin
- Decompensated cirrhosis
- Severe anemia
- Autoimmune hepatitis
- Untreated hyperthyroidism
- Pregnancy
- Men who are sexual partners of women who are currently pregnant
- Unwilling or unable to comply with adequate contraception**
- Severe concurrent diseases (e.g., severe hypertension, heart failure, significant coronary artery disease, poorly controlled diabetes, obstructive pulmonary disease)
- Less than 3 years old
- Known hypersensitivity to drugs used to treat HCV

*Major depression should be treated; patients may be treatment candidates when their depression is controlled.

– Consider antidepressant use prior to and during therapy.

– Mild to moderate depression is not a contraindication to therapy, and these patients should not be automatically excluded from treatment.

– Learn to recognize symptoms of depression in patients who are undergoing HCV treatment (see Detecting and treating depression in adults. *City Health Information*. 2006;25(1):1-8 available at www.nyc.gov/html/doh/downloads/pdf/chi/chi25-1.pdf).

**Patients should use 2 methods of contraception during treatment and during the 6-month post-treatment follow-up period to avoid pregnancy.

are less frequent with pegylated interferon. Adverse events associated with ribavirin include rash, pruritis, hemolytic anemia, gout, and birth defects.

Contraindications to Therapy

Because the available medications can cause serious adverse events, the decision to pursue pharmacologic therapy should be discussed in detail with the patient. A patient should not be considered a treatment candidate if he or she cannot keep scheduled appointments reliably. There are several conditions in which pharmacologic therapy is contraindicated, thus patients with these conditions should generally not be referred to a specialist for pharmacologic therapy (Table 8).⁵

SPECIAL POPULATIONS

Pregnant Patients

The use of an interferon-based medication or ribavirin is contraindicated during pregnancy. Mother-to-infant transmission of HCV occurs only when the virus is detectable in the blood; the transmission rate is between 4% and 7%, increasing 4- to 5-fold with HIV infection.¹²

Infants born to HCV-infected mothers should be tested for HCV infection. An infant may have maternal anti-HCV until 18 months of age; the CDC recommends not testing for anti-HCV until a child is 18 months old.

There is not enough evidence to recommend that HCV-infected mothers avoid breast feeding. Mothers should,

however, consider abstaining from breast feeding if nipples are cracked or bleeding.

Injection Drug Users

In the US, HCV prevalence among persons who have ever used injection drugs is estimated at 57%.² Sharing needles is the riskiest behavior, and a large percentage of injection drug users share needles.² Although providers are often reluctant to treat active injection drug users, they should not reject patients for treatment on this basis alone, and should instead consider these patients on an individual basis.¹³ Interferon appears not to significantly change the pharmacokinetics of methadone.¹⁴ Active injection drug use does not appear to affect patient adherence, management regimen, or SVR.^{15,16} Provide HCV risk-reduction counseling regardless of the decision to treat (Table 9). Prior HCV infection, whether it has resolved spontaneously or via antiviral therapy, does not confer immunity. Thus, even if SVR has been achieved, there is a risk of reinfection.

Psychiatric disorders are common among patients with HCV who are active drug users.¹⁷⁻¹⁹ Interferon-based therapy in HCV-infected patients often causes depressive symptoms and has the potential to exacerbate a pre-existing psychiatric disorder. An increase in depressive symptoms may be associated with reduced viral clearance.²⁰ Major depression should be treated; patients may be treatment candidates when their depression is controlled.

TABLE 9. ILLICIT DRUG USERS: ADVICE ABOUT HEPATITIS C TRANSMISSION AND PREVENTION

- Do not inject street drugs. If you do inject street drugs, enroll in a treatment program to stop
- If you cannot stop injecting drugs:
 - never share your drug equipment (needles, syringes, water, cotton, cooker, ties, etc.)
 - use sterile syringes and drug equipment every time you inject drugs
 - don't split drugs with a used syringe. If that is not possible, split drugs while they are still in powdered form
 - wash your hands and the injection site before and after shooting up
 - don't share straws if you snort drugs. Blood on the straw may spread the virus
- Get tested and vaccinated against hepatitis A and hepatitis B
- Get tested for HIV
- For information about drug and alcohol treatment programs, call:
 - English: (800) LIFENET or (800) 543-3638
 - Spanish: (877) AYUDESE or (877) 298-3373
- Syringe exchange programs give out free injection equipment in exchange for old syringes. Patients may contact the Harm Reduction Coalition by telephone at (212) 213-6376 for a listing of accessible syringe exchange programs
- To locate a nearby pharmacy where patients can legally buy clean syringes without a prescription, contact the New York State Department of Health:
 - English: (800) 541-AIDS or (800) 541-2437
 - Spanish: (800) 233-SIDA or (800) 233-7432
 - Internet: www.health.state.ny.us/diseases/aids/harm_reduction/index.htm

RESOURCES

Hepatitis C Resources:

- **AIDS Community Research Initiative of America (ACRIA)**
www.acria.org
(212) 924-3934
- **American Liver Foundation**
www.liverfoundation.org
(212) 943-1059
(877) 307-7507
- **Centers for Disease Control and Prevention (CDC)**
www.cdc.gov/hepatitis
National Hepatitis Hotline: (888) 443-7232
- **Harm Reduction Coalition**
www.harmreduction.org
New York office: (212) 213-6376
- **HCV Advocate**
Hepatitis C Support Project
www.hcvadvocate.org
- **Immunization Action Coalition**
www.immunize.org
www.hepprograms.org
- **Latino Organization for Liver Awareness (LOLA)**
www.lola-national.org
(718) 892-8697
- **National AIDS Treatment and Advocacy Project (NATAP)**
www.natap.org
(212) 219-0106 or (888) 26-NATAP
- **National Hepatitis C Prison Coalition**
HCV Prison Support Project
www.hcvinprison.org

- **New York City Department of Health and Mental Hygiene Hepatitis C Program**
www.nyc.gov/html/doh/html/cd/cdhepc.shtml
- **New York State AIDS Institute**
www.health.state.ny.us
- **Veterans Affairs - National Hepatitis C Program**
www.va.gov/hepatitisc

Support Groups for People Infected with Hepatitis C:

- **American Liver Foundation**
www.liverfoundation.org
(212) 943-1059
(877) 307-7507
- **Hepatitis Education Liver Disease Awareness Patient Support Program (H.E.L.P.P.)**
(718) 352-7772
- **Latino Organization for Liver Awareness (LOLA)**
www.lola-national.org
(718) 892-8697
- **National AIDS Treatment Advocacy Project (NATAP)**
www.natap.org
(212) 219-0106 or (888) 26-NATAP
- **New York Harm Reduction Educators**
(212) 828-8464
- **Positive Health Project**
(212) 465-8304

References Online: To view references for this publication, visit www.nyc.gov/html/doh/downloads/pdf/chi/chi25-3-ref.pdf.



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CME Activity Diagnosing and Managing Hepatitis C

1. Providers should counsel patients with hepatitis C infection about all of the following EXCEPT:

- A. To be vaccinated against hepatitis C.
- B. To avoid sharing personal care items that may have blood on them, such as razors or toothbrushes.
- C. To get an HIV test.
- D. To eliminate alcohol consumption (or decrease amount if unwilling or unable to stop drinking).

2. Which of the following are characteristics of the qualitative assay test for HCV infection? (Select all that apply.)

- A. The test should not be used unless the patient is going to receive pharmacologic therapy.
- B. The test is more sensitive than a quantitative test, so should be used to distinguish active from resolved infection among persons with a positive anti-HCV result.
- C. The test can be used to detect the presence of HCV RNA as early as 1 to 2 weeks after exposure.
- D. A single negative result always rules out HCV infection.

3. Which of the following are contraindications to pharmacologic therapy for HCV? (Select all that apply.)

- A. uncontrolled major depressive disorder
- B. mild to moderate depression
- C. unable or unwilling to comply with adequate contraception
- D. pregnancy

4. Which of the following is true about HCV genotypes and genotype testing? (Select all that apply.)

- A. Genotypes 2 and 3 have the highest prevalence of HCV genotypes in the US.
- B. Genotypes 2 and 3 have the highest likelihood of response to current therapy.
- C. Genotype is predictive of the likelihood of treatment response.
- D. Genotype testing should be repeated on a yearly basis.

5. Which of the following should prompt screening a patient for HCV infection?

- A. blood transfusion in 1995
- B. end-stage kidney disease
- C. hemodialysis
- D. history of alcoholism

6. How well did this continuing education activity achieve its educational objectives?

- A. Very well
- B. Adequately
- C. Poorly

7. After reading the information presented, how likely are you to directly manage the care of a patient with HCV infection?

- A. More likely
- B. Same as currently
- C. Less likely
- D. Not applicable

8. What category of information about HCV infection presented in this bulletin was most useful to you (select all that apply)?

- A. Risk factors
- B. Diagnostic tests
- C. Medical management

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Read this issue of *City Health Information* for the correct answers to questions.

To receive continuing education credit, you must answer 4 of the first 5 questions correctly.

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Continuing Medical Education Diagnosing and Managing Hepatitis C

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CITY HEALTH INFORMATION

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Objectives

At the conclusion of the course, the participants should be able to:

1. Increase their understanding of risk factors for the disease.
2. Expand their awareness of the issues involved in the diagnosis and management of HCV infection.
3. Improve their ability to counsel patients infected with or at risk for infection with HCV.

Accreditation

The DOHMH is accredited by the Medical Society of the State of New York to sponsor continuing medical education for physicians. This continuing medical education activity is designated for a maximum of 2.0 hours in Category One credit toward the AMA/PRA (Physician's Recognition Award). Each physician should claim only those hours of credit that were spent on the educational activity.

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Participants must submit the accompanying exam by March 31, 2007.

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Meredith Deutscher, MD is affiliated with Beth Israel Medical Center, New York City. All other faculty are affiliated with the New York City DOHMH, Division of Disease Control.

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