There are an estimated 4 million Americans currently infected with HCV. Most are 40-59 years old.

Although first recognized because of its association with blood transfusion, hepatitis C was shown to account for 15% to 20% of community-acquired acute viral hepatitis in the U.S. and to be associated with other risk factors, including injection drug use, hemodialysis, occupational exposure to contaminated needlesticks, birth to an HCV-infected mother, and high risk sexual practices.

**WHAT IS HEPATITIS C?**

Hepatitis C virus (HCV), discovered in 1988 by molecular cloning, is the primary cause of the type of hepatitis previously known as non-A, non-B hepatitis. HCV infection is the most common chronic blood-borne infection in the United States. Most HCV-infected persons might not be aware of their infection because they are not clinically ill. Infected persons serve as a source of transmission to others and are at risk for chronic liver disease or other HCV-related chronic disease.

- 75%-85% of HCV infected persons develop chronic infection
- 70% of chronically infected persons have chronic liver disease as measured by abnormal ALT levels
- 10%-20% of persons with chronic hepatitis C develop cirrhosis
  - progression to cirrhosis usually occurs over 20 or more years
- 1%-5% of infected persons die of HCV-related chronic liver disease

Current risk for transfusion associated hepatitis C is less than 1 per million units transfused.
WHOM SHOULD YOU TEST FOR HCV INFECTION?

You should routinely test patients at increased risk:

- Patients who received a blood transfusion or solid organ transplant before July 1992
- Many patients may not be aware they received a transfusion in the past
- A history of certain medical conditions or surgical procedures could be useful for identifying such patients
  - e.g., hematologic disorders; major surgery such as cardiac, orthopedic, GI, GYN, C-Section; major trauma, premature birth, cancer

- Patients with a history of injecting illegal drugs
  - Probe for occasional or recreational drug use once or a few times many years ago; such persons usually do not self-identify
- Patients with persistently abnormal ALT levels
- Patients with hemophilia treated with clotting factors manufactured before 1987
- Patients ever on chronic hemodialysis

You also should test persons with a known exposure to HCV:

- Health care workers after a percutaneous or mucosal exposure to HCV-positive blood (risk is about 2%)
- Children born to HCV-positive women (risk is about 6%)
**WHAT TESTS SHOULD YOU USE FOR DIAGNOSIS?**

- **Anti-HCV**
  - **NEGATIVE** → **STOP**
  - **POSITIVE** → **NEGATIVE** → **STOP**

  - **High signal-to-cut-off ratio** or **RIBA** positive or **HCV RNA** positive → **Confirmed**
  - **and No Other Test Done** → **Unconfirmed**
  - **and HCV RNA Negative** → **Unconfirmed**

  - **Nucleic Acid Testing (NAT) for HCV RNA** OR **RIBA** for Anti-HCV
    - **POS** OR **NEG** → **Medical Evaluation for active infection and liver disease**
    - **POS** FOR **HCV RNA** OR **NEG** → **STOP**

  - **NAT for HCV RNA** OR **Repeat Anti-HCV > 1 Month**
    - **POS** OR **NEG** → **STOP**

**How should you follow and manage HCV-Positive patients?**

- Assess for viremia and biochemical evidence of chronic liver disease
  - Test for HCV RNA and ALT
- If HCV RNA is negative or if ALT is normal, multiple measurements should be performed at regular intervals
- RNA and ALT levels may fluctuate in some patients with chronic hepatitis C.
• Vaccinate against hepatitis A and B
• Advise to abstain from alcohol
• Assess for severity of liver disease and possible treatment in patients with abnormal ALT values in consultation with, or by referral to, a specialist knowledgeable in this area
  - Combination therapy with pegylated interferon and ribavirin is the treatment of choice resulting in sustained response rates of 40-80%
    - 40-45% for patients infected with genotype 1 (the most common in the U.S.)
    - 80% for patients infected with genotypes 2 or 3
• Persons for whom antiviral treatment is recommended:
  - persistently elevated ALT levels
  - detectable HCV RNA
  - a liver biopsy that indicates either portal or bridging fibrosis or at least moderate degrees of inflammation and necrosis
• Antivirals are FDA-approved only for persons 18 years old and older

Additional information on treatment can be obtained from the NIH website at http://www.niddk.nih.gov/health/digest/pubs/chrnhepc/chrnhepc.htm

WHAT SHOULD I TELL HCV-POSITIVE PATIENTS ABOUT TRANSMISSION TO OTHERS?

Avoid situations in which others will be exposed to their blood
• Do not donate blood, body organs, other tissue or semen
• Do not share toothbrushes, dental appliances, razors, home therapy equipment or other personal-care items that might have blood on them
**SEX**
- Transmission by sex occurs, but efficiency is low
  - no data available to quantify risk
- Persons with one long-term steady partner do not need to change sexual practices
  - some couples might decide to use barrier precautions to lower the limited risk of spreading HCV to their partner
- Partner may benefit from counseling and testing

**PREGNANCY**
- No need to avoid pregnancy
  - although about 6% of infants become infected, these infants appear to do well in the first years of life
- Neither breastfeeding nor mode of delivery is associated with transmission
  - no need to avoid breastfeeding
  - no need to perform C-section based on HCV status

For more information and resources on Hepatitis C, contact the Washington State Department of Health or your local health jurisdiction:

DOH Infectious Disease and Reproductive Health
PO Box 47838, Olympia, WA 98504

1-866-917-4HEP
www.doh.wa.gov/cfh/hepatitis