



# PHYSICIANS' BULLETIN

## Hepatitis C Update

### Trends and Risk Factors

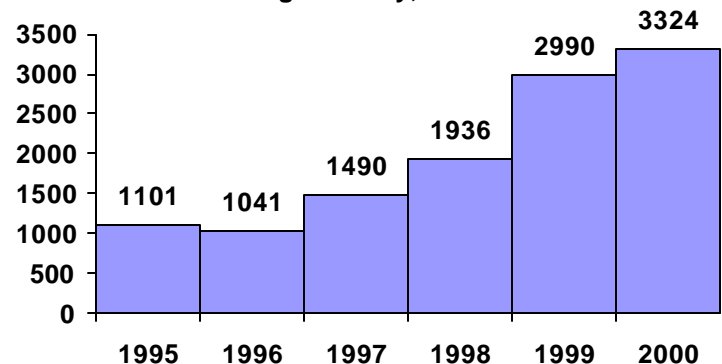
Hepatitis C virus is a serious bloodborne pathogen and, along with hepatitis B and the Human Immunodeficiency Virus (HIV), causes considerable morbidity and mortality. In the United States each year, 8,000 - 10,000 persons die from complications of chronic hepatitis C virus (HCV) infection. HCV infection was more commonly transmitted through blood transfusions until screening tests became available (1990 routine testing on donors began and in July 1992 a more sensitive test was added). **HCV is also transmitted by injection drug users (IDUs) sharing needles and injection equipment and this exposure is currently the mode of transmission for the majority of HCV infections.** Transmission via sexual exposure, needle stick injury, and organ transplants occurs infrequently in the U.S. However, in developing countries unsafe injections and transfusions are a source of transmission.

Studies of IDU networks have shown new members often become HCV infected within 6-12 months and overall network prevalence was often as high as 75-90%. This was particularly true in the east coast cities where IDUs also had a very high prevalence of HIV (approximately 50%). On the west coast, HIV prevalence has remained <5% among IDUs and overall HCV seroprevalence may be closer to 40-50%, with a higher prevalence among IDUs > 30 years of age.

In San Diego, HCV screening was offered to all STD clinic clients during an 8-month period (Sep 1999 – Apr 2000). Of the 3,356 clients tested, **HCV prevalence among IDUs was 51% and the prevalence was much higher in IDUs  $\geq$  30 years of age compared to younger IDUs (67% vs. 14%,  $p < 0.001$ ).**

In addition, among those not self-reporting injection drug use, prevalence was 2.0% and similarly was more common in those  $\geq$ 30 years of age (3.6% vs. 0.5%,  $p < 0.01$ ). Among men who have sex with men (MSM), prevalence was low (<1.5%).

Hepatitis C Positive Reports  
San Diego County, 1995-2000



Laboratories and physicians are required to report test results that indicate hepatitis A, B or C infection. **More HCV tests are being done and more positive tests are being reported.** In San Diego, during the last 5 years, the

number of HCV infection cases reported has increased markedly. From 1998 to 1999 the number of persons reported with an HCV positive test increased by 54% from 1,936 to 2,990, and from 1999 to 2000, reports increased another 11% to 3,324 cases.

This increase coincides with 2 major laboratories having reported an increase in testing. One laboratory reported running approximately 9,000 tests in 1998, which increased by ~ 50% to 12,000 tests in 1999. The age distribution of reported cases was similar to that determined from the seroprevalence survey among STD clients - - >90% of reported cases were >30 years of age.

These reported countywide case data and the STD clinic seroprevalence data suggest that **most of the HCV infections being currently identified and reported were likely acquired during the 70s and 80s** and there is no evidence to support a current increasing epidemic of HCV transmission. However, new infections continue to occur among young injection drug users (studies of active IDUs <30 years of age in Los Angeles and Chicago showed a 25% infection prevalence).

The CDC estimates that nationally there has been a major decline in new HCV infections from 230,000 per year in the 1980s to about 36,000 new cases per year by 1996. The reasons for this marked decline have not been fully explained but very likely were due to a change in IDU behavior related to HIV prevention interventions.

### Why the concern about HCV infection now?

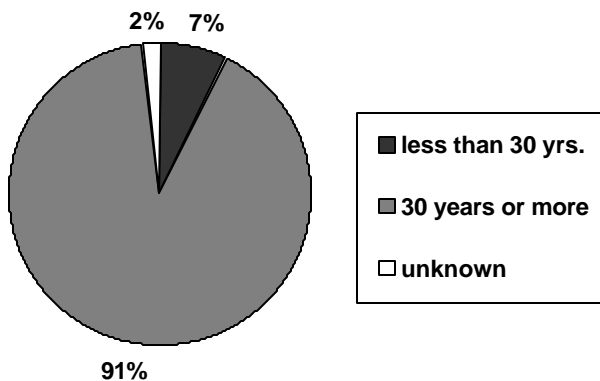
The epidemic of new HCV infections has passed, but **the “epidemic of HCV liver disease” is starting and is projected to increase during the next 10 years.** About 10 - 20% of persons infected with HCV will develop cirrhosis/liver failure 20-30 years after becoming infected. Currently, the most common reason for being placed on a liver transplant list is cirrhosis/liver failure from chronic HCV infection. Liver transplants are estimated to cost >\$150,000 with recurring medical costs of \$25,000 per year. Persons with chronic HCV infection also have an increased risk of developing primary hepatocellular carcinoma, especially if they smoke cigarettes. By extrapolation from a national HCV seroprevalence survey, **there are about 40-50,000 HCV infected persons in San Diego**, many of whom do not know they are infected.

### Identifying Persons with Hepatitis C Infection

What can practicing clinicians do to help identify HCV infected persons?

- **Assess patients** for HCV related high-risk behavior (injection drug use, multiple sex partners, and a history of STDs) and blood transfusion history. Persons who had a blood transfusion prior to July 1992 are at risk for HCV infection. Some of these transfusions may have occurred during the neo-natal period and may not be apparent to the patient. Questions about pre-

HCV Positive Reports by Age  
San Diego County, 2000



maturity, Rh incompatibility, or jaundice at birth should lead to further questions and possible HCV screening. Transfusions or injectable medications received in developing countries may also be an indication for screening.

- **Screen** for HCV among persons who have a history of ever injecting drugs or received a blood transfusion before July 1992. Persons with a history of STDs or multiple sex partners will have a relatively low risk of infection, but could be screened if resources are available. An EIA test is available (EIA 3.0) and if repeatedly positive, a confirmatory test is indicated (Western Blot RIBA or RNA polymerase chain reaction [PCR] viral load test).

Among IDUs, the false positivity rate for the EIA alone is <5%. Primary care physicians should evaluate and manage HCV infected patients before referring to a Hepatologist. A National Institutes of Health (NIH) consensus statement on the management of HCV infection is available on request from the STD Control Program (619) 692-8082/8614. (NIH. Consensus development conference panel statement: Management of hepatitis C. Hepatology 1997; 26 (Suppl 1): 2S-10S).

<p><b>HEPATITIS C SCREENING</b></p> <p>Major Screening Categories:</p> <ul style="list-style-type: none"><li>• Injected drugs – even 1 time, many years ago.</li><li>• Blood transfusion before July 1992 (transfusion may have occurred during infancy)</li></ul>
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### Preventing Hepatitis C Infection

- Counsel high-risk patients about the importance of not injecting drugs, sharing

needles or injection equipment and to practice safe sex. Practicing these safe behaviors will help prevent HIV, HBV, HCV, unplanned pregnancy and STDs. Sexual transmission of HCV is not efficient but persons with a history of multiple partners appear to have an increased risk, and 20% of persons with acute HCV infection have no identified risk factors other than multiple partners/STD history.

- HCV infected persons should be advised not to share razors or toothbrushes and should keep open wounds covered.

### Preventing Hepatitis C Sequelae

- **Counsel HCV infected patients about how to prevent further liver damage:**

**Avoid alcohol** – Since HCV infection rapidly progresses to cirrhosis with concomitant alcohol consumption – even relatively small amounts of alcohol can be very harmful.

**Stop smoking** – This exposure increases the risk of developing liver cancer.

**Get vaccinated** – Hepatitis A and hepatitis B vaccination should be provided to protect the liver from further damage.

**Avoid hepatotoxic medications**, including over-the-counter medications, such as acetaminophen (in large doses). Patients should be instructed to read over-the-counter medication labels carefully and consult with their physician.

- **Treatment** – All patients with HCV infection should have a medical evaluation to determine if viral replication is occurring and whether anti-viral treatment is indicated. Various research studies are available for treating persons with HCV

infection and it is likely that treatment will become more efficacious in the future. Treatment guidelines are available on the CDC website:  
[www.cdc.gov/ncidod/diseases/hepatitis/c\\_training/edu/default.htm](http://www.cdc.gov/ncidod/diseases/hepatitis/c_training/edu/default.htm)

## Hepatitis C Screening Services

**STD Clinic Services** - The county STD clinic and some HIV counseling and testing sites provide selective risk-based screening for HCV infection. At the STD clinic this service is provided as part of a STD clinical examination visit with screening limited to high-risk clients (primarily history of IDU).

### STD CLINIC SERVICES

- Physical Examination
- STD screening
- Confidential HIV counseling and testing
- Risk-based hepatitis A & B vaccine
- Risk-based selective HCV screening

The main STD clinic (3851 Rosecrans Street) operates Monday – Friday. Please call (619) 692-8550 for further information including location and hours of other STD clinic services available at Public Health Centers throughout the county (some have evening hours).

### HIV counseling and testing sites

County anonymous HIV counseling and testing sites also provides risk-based hepatitis C screening in conjunction with an HIV test; call 619-515-6600 for locations and hours.

## Hepatitis C Resources

- Centers for Disease Control and Prevention  
[www.cdc.gov/hepatitis](http://www.cdc.gov/hepatitis) or (888)443-7232
- American Liver Foundation, San Diego Chapter - (619) 291-5483
- San Diego County STD/Hepatitis Prevention Program – (619) 692-8003
- San Diego Hepatitis Community Consortium (SDHCC) – *Working to address the prevention and treatment of viral hepatitis in San Diego County* - (619) 692-8003

*If you would like to receive periodic hepatitis updates via email, please respond to:*  
[soneilhe@co.san-diego.ca.us](mailto:soneilhe@co.san-diego.ca.us)

The *Physicians' Bulletin* is published on an as-needed basis by the County of San Diego Health and Human Services Agency to provide updated information on health issues of concern to San Diego County's medical community.

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