

HEPATITIS C VIRUS INFECTION

CRUDE DATA	
Number of Cases	10
Annual Incidence ^a	
LA County	0.34
California	0.36
United States	1.17
Case Fatality	
LA County	0%
United States	N/A

^a Cases per 100,000 population.

ETIOLOGY

Hepatitis C virus (HCV) is an RNA virus—one of at least 5 different viruses associated with liver disease—that is predominantly transmitted through contact with contaminated blood and blood products. Sexual and perinatal transmission of HCV appears to occur less frequently, but its epidemiology has yet to be fully elucidated. There is no vaccine available for HCV, so primary prevention efforts concentrate mainly on risk-behavior modification—specifically, avoiding contact with contaminated blood.

Symptoms of acute infections can include jaundice, fatigue, anorexia, nausea, or vomiting; however, up to 80% of acute infections have mild or no symptoms and usually go undetected. Hepatitis C completely resolves in only 15% of infections and progresses to a chronic illness in 60 - 70%. Medical complications occur decades after initial infection—including cirrhosis, liver failure, and hepatic cancer. Once infection has taken hold, secondary prevention recommendations include getting vaccinated for hepatitis A and B viruses; stopping or reducing alcoholic beverages; avoiding other high-risk behaviors; and seeing a doctor to be assessed for early treatment.

DISEASE ABSTRACT

- During 2000 there were 10,044 case reports of HCV infection—including acute, chronic, and resolved cases—a 34% increase from 1999.
- Of these, only 10 could be confirmed as acute infections.

COMMENTS

Because of the insidious nature of this agent, identification of infections during their acute phase is problematic. CDC defines a case of acute HCV as follows:

- A positive HCV test (either antibody test—EIA or RIBA—or detection of the HCV-RNA antigen by polymerase-chain reaction);
- Evidence of jaundice, or an onset date within six months of the date of diagnosis/report;
- Serum alanine aminotransferase (ALT) greater than 2.5 times the upper limit of normal;
- No evidence of either acute hepatitis A or B disease.

Even with this suspect definition, with further public health investigation, many were determined to be chronic, with prior history of anti-HCV positive laboratory tests.

Since 1995, yearly increases in reports of chronic infections are likely the result of: (1) the CDC's recommendation that individuals transfused prior to 1992 be screened for HCV; (2) the Food and Drug Administration's targeted look-back program, which traced recipients of HCV-positive-donor blood products as far back as 1988; and (3) increased public awareness.

Universal blood product screening in 1990 and heat-inactivation of other blood concentrates since 1987 have dramatically reduced recipient-associated cases of hepatitis C. That action leaves reduction of high-risk behaviors as the chief further means to prevent transmission. Education aimed at reducing high-risk behaviors for hepatitis B and HIV transmission—such as sharing injection drug equipment—should have additional benefit in reducing hepatitis C cases.

Once chronic infection has occurred, consuming alcohol and becoming co-infected with HIV or other hepatitis A or B virus can accelerate the progression of hepatitis C disease to cirrhosis, liver failure, and hepatocellular carcinoma. Additional funding is necessary to study the feasibility of incorporating HCV screening, counseling, diagnosis, treatment and administration of hepatitis A and hepatitis B vaccine into existing programs that provide drug/alcohol treatment as well as HIV screening and treatment.

ADDITIONAL RESOURCES

American Liver Foundation website:
<http://www.liverfoundation.org/>

International Liver Foundation website:
<http://www.hepfi.org/infomenu.htm>

CDC website:
<http://www.cdc.gov/ncidod/diseases/hepatitis/>

Acute Communicable Disease Control website:
<http://lapublichealth.org/acd/procs/b73/b73index.htm>