

HEPATITIS C

CRUDE DATA	
Number of Cases	8
Annual Incidence ^a	
LA County	0.09
California	1.46
United States	1.12
Age at Onset	
Mean	36.1 yrs
Median	29 yrs
Range	25-62 yrs
Case Fatality	
LA County	0.0%
United States	N/A

^aCases per 100,000 population.

ETIOLOGY

Hepatitis C and possibly other hepatotropic viruses.

DISEASE ABSTRACT

Non-A, non-B hepatitis refers to a reporting category of viral hepatitis which excludes infection with types A and B hepatitis viruses and other known causes of liver disease. In the US, most cases of non-A, non-B are caused by the hepatitis C virus (HCV) which is predominantly transmitted by blood-to-blood contact. HCV infection is often mild or inapparent in its acute stage, but chronic liver disease with persistent hepatitis C antibodies occurs in the majority of infections. The formation of hepatitis C antibodies does not confer immunity because of the spontaneous appearance of multiple HCV quasi species. Sexual and perinatal transmission of HCV appears to occur infrequently; however, the epidemiology of hepatitis C is still being elucidated.

During 1998, a total of 3,670 both chronic and acute HCV case reports (primarily anti-HCV positive tests) were received. This represents a 12.9% increase in reported cases compared to 1997 (N=3,250) and a 61% increase since 1995 (N=2,013). For 1998 cases, an acute case was defined as an individual with a positive anti-HCV (antibody test) or HCV virus detected by polymerase chain reaction (PCR), and evidence of jaundice or alanine aminotransferase (ALT) greater than 2.5 times the upper limit. In 1998, only eight cases met the case definition from review of 331 epidemiologic case records coded as acute. This compares with 23 acute cases identified in 1997 utilizing a less stringent case definition. Five cases were Hispanic males and three were non-Hispanic White males, with a median age of 26 years. Five cases reported receiving tattoos within the previous three months while incarcerated or in a residential drug treatment program, one case had a history of illicit drug and alcohol abuse, and the source of infection was unknown for two cases. Cases incarcerated in a State prison were likely overrepresented as an aggressive admission and follow-up HCV screening program was in place. The only other organized HCV screening program in LAC

occurred within the Veteran's Administration healthcare system.

DATA LIMITATIONS

Due to the unusually mild acute stage of hepatitis C infection, an individual is often first identified during the chronic stage of illness. The 1998 increase in reported acute hepatitis C cases probably was due to a misclassification of reported serologically positive anti-HCV chronic cases rather than a true change in the epidemiology of hepatitis C. In recent years, laboratories have been encouraged to report hepatitis-positive laboratory results. Although anti-HCV reporting is not required, positive results are often reported. Incoming reports are classified as suspect acute cases. Unfortunately, these initial reports may remain in the system as acute, even when the majority of subsequent investigations determine the case to be a chronic infection. Also, 10-40% of the anti-HCV reports positive by enzyme immunoassay (EIA) may be falsely reactive; the highest false-positive rate occurs among individuals at low risk for infection. Results of confirmatory tests such as the recombinant immunoblot assay (RIBA) or HCV-RNA are rarely reported.

Since 1995, yearly increases in reports 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 HCV-positive donors to recipients as far back as 1988; (3) increased public awareness via media coverage; and (4) increased pressure from special interest groups such as HIV-infected individuals, individuals in drug treatment programs and drug company advertising efforts.

PREVENTION

Reduction of high-risk behaviors is the chief means of preventing hepatitis C. Education aimed at reducing high-risk behaviors for hepatitis B and HIV transmission such as injection drug use should have additional benefit in reducing hepatitis C cases. The CDC is currently funding controlled studies looking at body tattooing as an independent risk factor for acquisition of HCV infection. Serologic testing of blood products continues to keep the risk of transfusion-associated hepatitis C low. Both alcohol consumption and co-infection with HIV accelerate the progression of cirrhosis and hepatocellular carcinoma. As such, additional funding is necessary to study the feasibility of incorporating HCV screening, counseling, diagnosis, treatment and administration of hepatitis A and hepatitis B vaccine in drug treatment and HIV screening and treatment sites.