



## HEPATITIS C, ACUTE

CRUDE DATE	
Number of Cases	3
Annual Incidence	
LA County	N/A
California	N/A
United States	N/A
Case Fatality	
LA County	N/A
United States	N/A

<sup>a</sup> Rates based on fewer than 20 cases are unreliable.

### DESCRIPTION

The Hepatitis C virus (HCV) is the most common bloodborne infection in the US. This RNA virus is predominantly transmitted through contact with contaminated blood and blood products via injection drug use. Sexual and perinatal transmission of HCV appears to occur less frequently. People at risk include: anyone who has had a blood transfusion prior to 1989, IV drug users, hemodialysis patients, infants born to infected mothers, those with multiple sexual partners, health care workers who suffer needle-stick accidents, and people with tattoos or body-piercing. However, an estimated 30% have no identifiable history of exposure to the virus. Household or familial contact is not considered a risk factor for the transmission of hepatitis C. There is no vaccine available for HCV and vaccines for hepatitis A and B do not provide immunity against hepatitis C.

Symptoms of acute infections can include jaundice, fatigue, anorexia, nausea, or vomiting; however, up to 85% of acute infections have mild or no symptoms and usually go undetected. After acute infection, 15%-25% of persons appear to resolve their infection without sequelae as defined by sustained absence of HCV RNA in serum and normalization of ALT levels. Chronic HCV infection develops in most persons (75%-85%) with persistent or fluctuating ALT elevations indicating active liver diseases developing in 60%-70% of chronically infected persons. In the remaining 30%-40% of chronically infected persons, ALT levels are normal. No clinical or epidemiologic features among patients with acute infection have been found to be predictive of either persistent infection or chronic liver disease [1]. Most studies have reported that medical complications occur decades after initial infection including cirrhosis, liver failure, and hepatic cancer.

ACDC uses the CDC/CSTE criteria for acute hepatitis C to standardize surveillance of this infection. The criteria include discrete onset of symptoms and:

1. A positive HCV test (antibody test EIA) confirmed by a more specific test (RIBA or detection of the HCV-RNA antigen by polymerase-chain reaction [PCR]) or an EIA signal to cutoff ratio of  $\geq 3.8$ ; and
2. Serum alanine aminotransferase (ALT) greater than 7 times the upper limit of normal; and
3. No evidence of either acute hepatitis A or B disease.



The purpose of standardizing surveillance is to allow ACDC to more accurately monitor trends in hepatitis C, compare local data with state and national data, and improve identification of risk groups.

## DISEASE ABSTRACT

- There were three cases of confirmed acute hepatitis C in 2005, which is a decrease from 5 confirmed cases in 2004.
- Two female cases received multiple facial treatments.
- All cases were White.

## STRATIFIED DATA

**Seasonality:** None.

**Age:** Cases ranged in age from 19 to 59 years (the median age was 36).

**Sex:** In 2005, the male to female rate ratio was 1:2. Male-to-female ratios has changed compared to the previous year (4:1 in 2004)

**Race/Ethnicity:** In 2005, all cases were White. It remained the same as the previous year.

**Location:** SPA 5 (n=2) had the most cases, followed by SPA 2 (n=1).

## COMMENTS

There were 79 cases initially reported to have acute hepatitis C in 2005, but upon further investigation, only three (4%) met the acute hepatitis C surveillance criteria. This stringent criteria illustrates the difficulty of counting reported cases as acute hepatitis C for surveillance purposes. Therefore, it is likely that this data reflects an underreporting of acute hepatitis C cases. Furthermore, since some cases have mild signs and symptoms of hepatitis C in their acute stages, most of the time they may be first identified during the chronic stage.

There were limitations to the data collected. The data did not provide enough information for monitoring trends in transmission patterns. The majority of cases denied having risk factors for infection. The two female cases that reside in SPA 5 (West HD) had received multiple facial treatments from their (different) dermatologists. Despite the fact that the women had similar onset dates and lived in the same health district, after further investigation, no link could be established among these cases.

It is very important for improvements on monitoring changes in acute disease incidence and risk factors for infection be used to assess the effectiveness of hepatitis C prevention and control programs. ACDC is in the process of revising our hepatitis epidemiology form. This revised form will serve as a new tool for our district public health nurses to conduct interviews; it is hoped that the information collected will improve the identification of risk groups that can be targeted for the prevention of hepatitis C as well as improving general surveillance for the disease.

## PREVENTION

Universal blood product screening in 1990 and heat-inactivation of other blood concentrates initiated in 1987 have dramatically reduced recipient-associated cases of hepatitis C. This leaves the reduction of high-risk behaviors as the primary recommendation for preventing transmission; especially, since there is no effective vaccine or post-exposure prophylaxis. Educational efforts aimed at reducing high-risk behaviors (e.g., sharing injection drug equipment, engaging in unprotected sex), may help to reduce new hepatitis C cases. Additional education provided to all of the people who already have hepatitis C is important because alcohol consumption and co-infection with HIV can accelerate the progression of cirrhosis and hepatocellular carcinoma. Patients with chronic hepatitis C should be evaluated for severity of their liver diseases and for possible treatment.



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## REFERENCES

1. CDC. Recommendation for prevention and control of hepatitis C virus (HCV) infection and HCV related chronic disease. MMWR 1998; 47:1-39.

## ADDITIONAL RESOURCES

Further information about hepatitis is available from:

- American Liver Foundation – [www.liverfoundation.org](http://www.liverfoundation.org)
- International Liver Foundation – [www.hepfi.org/infomenu.htm](http://www.hepfi.org/infomenu.htm)
- CDC – [www.cdc.gov/ncidod/diseases/hepatitis](http://www.cdc.gov/ncidod/diseases/hepatitis)