

A Publication of the Genesee County Health Department Hepatitis C

In 1974, a form of transfusion-associated Hepatitis not due to Hepatitis A or B viruses was documented. This virus was tentatively termed Hepatitis non-A, non-B virus; however, after the cloning and sequencing of its genes in 1990, it was called Hepatitis C virus (HCV). Hepatitis C virus infection is the most common chronic bloodborne infection in the United States. According to CDC estimates, an average of 242,000 new infections occurred every year during the 1980s. The annual number of new infections has continued to decline since 1989, to 36,000 by 1996. Data from the 3rd National Health and Nutrition Examination Survey (NHANES III), conducted during 1988-1994, indicated that an estimated 3.9 million (1.8%) Americans have been infected with HCV.

A majority of individuals infected with HCV may be unaware of their infection but may serve as a source of transmission to others. They are also at risk for chronic liver disease or other HCV-related chronic diseases during the first two or more decades following initial infection. Chronic liver disease is the 10th leading cause of death among adults in the United States, and accounts for approximately 25,000 deaths annually, or approximately 1% of all deaths. Chronic liver disease accounted for 49 deaths in Genesee County in 2000. Mortality due to chronic liver disease varied by age in Genesee County in 2000, from a rate of 6.8 per 100,000 among those under the age of 50, to 23.2 per 100,000 among 50-74 year olds and 27.5 per 100,000 for those 75 years and over. Based on a prevalence rate of 1.8%, the estimated number of HCV cases in Genesee County is 7,851. The total number of chronic and acute HCV cases that were reported to the Genesee County Health Department (GCHD) in 2000 was 34.

HCV is transmitted primarily through direct percutaneous exposures to blood. There are two most common exposures associated with HCV transmission, blood transfusion and IV drug use. With the introduction of routine blood screening for HCV antibody in 1991, transfusion-related Hepatitis C has virtually disappeared. At present, injection drug use is the most common risk factor for contracting the disease. However, many patients acquire Hepatitis C without any known exposure to blood or to drug use. The risk of HCV transmission by household contact and sexual activity is not well defined, but transmission in these settings appears to be low. Transmission from mother to child is uncommon. The highest incidence of *acute* Hepatitis C is among persons between the ages of 20-39, and males. African Americans and Whites have similar incidence of acute disease, but Hispanics have higher rates. The highest prevalence of HCV *infection* is among persons aged 30-49 years and males. Unlike acute Hepatitis C, African Americans have a significantly higher prevalence of HCV infection than whites. Hepatitis C has an increased incidence in alcoholics regardless of other factors; the reason for this is unknown.

The Hepatitis C virus has 6 major genotypes and more than 90 subtypes. The frequency of the genotypes is different in different parts of the world. Genotype 1 is the most common in North

The purpose of this quarterly newsletter is to inform the community and health care providers in Genesee County about disease trends in the county. We welcome any comments or questions. Contact:

*Priya Nair, MPH, MSc, Epidemiologist, at
(810) 768-7971, or email*

Pnair@co.genesee.mi.us.

Visit our website at

<http://health.co.genesee.mi.us>

America. Acute Hepatitis C is very mild and clinically inapparent; 60-70% of individuals with Acute HCV infection have no symptoms; 20-30% may have jaundice; and 10-20% may have nonspecific symptoms such as anorexia, malaise, or abdominal pain. The average time period from exposure to symptom onset is 6-7 weeks and the average time period from exposure to seroconversion is 8-9 weeks. The course of acute Hepatitis C is variable, although an elevation in serum alanine aminotransferase (ALT) levels is its most characteristic feature. After acute infection, 15-25% of persons appear to resolve their infection. Chronic HCV infection develops in 75-85% of individuals. The course of chronic liver disease is slow and a majority of patients do not have any symptoms during the first two or more decades after infection. Often, chronic Hepatitis C is diagnosed when asymptomatic persons are identified as HCV positive during blood-donor screening or routine physical examination. There is no vaccine for Hepatitis C.

The Genesee County Health Department (GCHD) and the Michigan Department of Community Health (MDCH) are committed to reducing the disease burden of Hepatitis C in our communities. A better understanding of the risk factors associated with Hepatitis C will help us initiate prevention programs targeting those at highest risk for contracting this disease. MDCH recently modified disease reporting guidelines that local

Health Departments are required to follow. Subsequently, the GCHD sent a letter to all area hospital Infectious Disease staffs with the new reporting guidelines for Hepatitis C. The Health Department is required to report all new cases of Hepatitis C as acute, chronic or unknown in order to determine the prevalence and incidence of Hepatitis C. The CDC (Centers for Disease Control and Prevention) revised the case definition for acute Hepatitis C. The current case definition includes the criteria that serum alanine aminotransferase (ALT) levels be greater than 7 times the upper limit of normal in order to classify a case as acute.

To meet these new reporting guidelines the GCHD will need additional information, such as ALT levels, if blood tests were done. To help the GCHD accurately categorize the cases of Hepatitis C in Genesee County, we ask that health care providers submit all information on the new *Hepatitis Reporting Information Form* (enclosed). These new guidelines are effective immediately, and we appreciate your help in accurately quantifying the disease burden due to Hepatitis C in Genesee County. If you have any questions regarding these new guidelines, please contact Marilyn Legacy, BSN, RN, Communicable Disease Supervisor, at (810) 257-3634.

Selected Reportable Communicable Diseases in Genesee County

Disease	Week ending 01/25/02	Reported cases to date FY* 2001-02	Same week reported cases to date FY 2000-01	Total reported cases FY 2000-01
Chicken Pox	6	129	142	311
Pertussis	0	1	5	7
Flu-like illness	1326	17,418	17,670	38,774
TB-New cases	0	10	6	15
Chlamydia	0	755	629	1961
Gonorrhea	0	665	534	1581
Hepatitis B (Acute)	0	6	18	39
Hepatitis C (Acute)	0	5	14	44
Campylobacter	0	13	6	27
Giardiasis	0	12	7	32
Hepatitis A	0	5	12	19
Salmonellosis	0	14	6	29
Shigellosis	0	1	18	29
Meningitis-Viral	1	64	19	178
Meningitis-Bacterial	0	4	4	17

*FY – Fiscal Year. October 1-September 30

Genesee County Health Department

Robert M. Pestronk, MPH, Health Officer • Gary K. Johnson, MD, MPH, Medical Director
630 S. Saginaw Street, Flint, MI 48502