



HCV Disease Overview

Hepatitis is inflammation of the liver. Viruses are a frequent and important cause of hepatitis, such as hepatitis A, B, or C. Hepatitis C virus (HCV) is recognized as a major cause of chronic hepatitis worldwide.

According to the World Health Organization and U.S. Centers for Disease Control and Prevention (CDC), about 4.1 million Americans (1.6% of the U.S. population), of whom 3.2 million are chronically infected, and 170 million people worldwide (3% of the world's population) are infected with HCV. Of the people infected with HCV today, less than 2 percent are receiving adequate therapy for their disease. Currently, the highest prevalence of HCV infection occurs among males and those ages 30 to 49. Because of the high rate of persistent infection, a 4-fold increase in the number of individuals with chronic HCV infection is projected to occur by the year 2015, with the incidence of this infection in developing regions anticipated to grow by up to 2 percent annually.

Transmission

Transmission of the virus occurs when blood or body fluids from an infected person enters the body of a person who is not infected. Hepatitis C can be spread through sharing needles when "shooting" drugs, through sexual contact, through certain occupational exposure, or perinatal infection from an infected mother to her baby during birth. The most common route of transmission in the U.S. of hepatitis C is intravenous drug use. Transfusion-related acute hepatitis C is now very rare.

Natural History

The acute stage, which occurs 2 weeks to 6 months after infection, usually is so mild that most people don't know they are sick;

- 80% of persons have no signs or symptoms
- When symptoms are present, the most common are fatigue (~70 percent), abdominal pain/discomfort (~20 percent), anorexia (~15 percent) and weight loss (~5 percent). The majority of chronic HCV carriers have hepatomegaly (70 percent), while some have an enlarged, palpable spleen (20 percent);
- Up to 85 percent of newly infected patients progress to develop chronic infection;
- 70 percent of those chronically infected persons will develop chronic liver disease;
- Liver damage (cirrhosis) develops in about 10 percent to 20 percent of persons with chronic infection;
- Liver cancer is a risk to patients with chronic infection over a period of 20 to 30 years;
- Deaths from chronic liver disease: 1%-5% of infected persons may die
- Liver damage caused by HCV infection is the leading indication for liver transplantation in the United States.

Who is at risk?

According to the Centers for Disease Control and Prevention (CDC), the following groups are considered to be potential candidates for testing for hepatitis C, due to their increased risk of acquiring the virus:

PERSONS	RISK OF INFECTION	TESTING RECOMMENDED?
Injecting drug users	High	Yes
Recipients of clotting factors made before 1987	High	Yes
Hemodialysis patients	Intermediate	Yes
Recipients of blood and/or solid organs before 1992	Intermediate	Yes
People with undiagnosed liver problems	Intermediate	Yes
Infants born to infected mothers	Intermediate	After 12-18 mos. old
Healthcare/public safety workers	Low	Only after known exposure
People having sex with multiple partners	Low	No*
People having sex with an infected steady partner	Low	No*

*Anyone who wants to get tested or wants more information on Hepatitis C should ask his or her doctor

There are currently no vaccines available to prevent hepatitis C, but there are medications that can be used to fight chronic infection. However, this treatment is not an option for everyone, and only about 50% of those who receive the treatment are cured of the infection. In addition, there are substantial limitations to the use of current regimens, including reduced response to treatment in subjects with HCV genotype 1 (the most prevalent type of infection in the U.S. and Europe) infection and considerable side effects that cause approximately 20 percent of subjects to discontinue therapy.

This makes Hepatitis C is one of today's greatest unmet medical needs. ViroPharma and Wyeth are on the cutting edge of identifying and developing potent antivirals targeting the hepatitis C virus; the hope is to one day improve the cure rate with better tolerated drugs, and to increase the number of patients who seek therapy thanks to these improvements.

For additional information on Hepatitis C, please visit:

The Centers for Disease Control and Prevention: <http://www.cdc.gov/ncidod/diseases/hepatitis/c/>