Hepatitis C

Key facts

- Hepatitis C is a liver disease caused by the hepatitis C virus (HCV).
- HCV infection sometimes results in an acute symptomatic illness. It can range in severity from a mild illness lasting a few weeks to a serious, lifelong chronic condition that can lead to cirrhosis of the liver and liver cancer.
- HCV is transmitted through contact with the blood of an infected person.
- Worldwide, about 130–170 million people are chronically infected with hepatitis C virus, and more than 350 000 people die from hepatitis C-related liver diseases each year.
- HCV infection is curable using increasingly effective antivirals.
- Despite ongoing research, there is currently no vaccine to prevent hepatitis C virus infection.

Hepatitis C is a contagious liver disease that results from infection with hepatitis C virus (HCV). It can range in severity from a mild illness lasting a few weeks to a serious, lifelong illness. HCV is usually spread when blood from a person infected with HCV enters the body of someone who is not infected. HCV is among the most common viruses that infect the liver.

It is estimated that 3–4 million people are infected with HCV each year. Some 130–170 million people are chronically infected with HCV and at risk of developing liver cirrhosis and/or liver cancer. More than 350 000 people die from HCV-related liver diseases each year.

HCV infection is found worldwide. Countries with high rates of chronic infection are Egypt (22%), Pakistan (4.8%) and China (3.2%). The main mode of transmission in these countries is attributed to unsafe injections using contaminated equipment.

Transmission

The virus is most commonly transmitted through exposure to infectious blood such as through: receipt of contaminated blood transfusions, blood products, and organ transplants; injections given with contaminated syringes, needle-stick injuries in health-care settings; injection drug use; being born to an HCV-infected mother. It is less commonly transmitted through sex with an infected person and sharing of personal items contaminated with infectious blood.

Hepatitis C is not spread through breastmilk, food or water or by casual contact such as hugging, kissing and sharing food or drinks with an infected person.
Getting tested

Knowing one’s infection status can prevent health problems that may result from HCV infection and prevent transmission to family and close contacts. Some countries recommend screening for individuals who may be at risk for infection. These include:

- individuals who received blood, blood products or organs before screening for HCV was implemented or where screening was not yet widespread;
- current or former injecting drug users (even those who injected drugs once many years ago);
- patients on long-term hemodialysis;
- health-care workers;
- people living with HIV;
- individuals with abnormal liver tests or liver disease;
- infants born to infected mothers.

Prevention

Primary prevention

No vaccine exists to prevent HCV infection, unlike those for hepatitis A and B virus. The risk of infection can be reduced by avoiding:

- unnecessary and unsafe injections;
- unsafe blood products;
- unsafe sharps waste collection and disposal;
- use of illicit drugs and sharing of injection equipment;
- unprotected sex with HCV-infected persons;
- sharing of sharp personal items that may be contaminated with infected blood;
- tattoos, piercings and acupuncture performed with contaminated equipment.

Secondary and tertiary prevention

If a person is infected with HCV, they should:

- receive education and counselling on options for care and treatement;
- be immunized with hepatitis A and B vaccine, to prevent co-infection from these hepatitis viruses, to protect their liver;
- get early and appropriate medical management including antiviral therapy if appropriate; and
- get regular monitoring for early diagnosis of liver disease.
Diagnosis

Diagnosis of acute infection is often missed because the infected person has no symptoms. Common methods of antibody detection cannot differentiate between acute and chronic infection. The presence of antibodies against HCV (anti-HCV) indicates that a person is or has been infected. HCV recombinant immunoblot assay (RIBA) and HCV RNA testing are used to confirm the diagnosis of HCV infection.

Diagnosis of chronic infection diagnosis is made when anti-HCV is present for more than 6 months. Similar to acute infections, diagnosis should be confirmed with an additional test. Specialized tests are often used to evaluate patients for liver disease including cirrhosis and liver cancer.

Disease progression

Following initial infection, approximately 80% of people do not exhibit any symptoms. Those people who are acutely symptomatic may exhibit fever, fatigue, decreased appetite, nausea, vomiting, abdominal pain, dark urine, grey-coloured faeces, joint pain, and jaundice (yellowing of skin and the whites of the eyes). When a chronically-infected person develops symptoms, it may indicate advanced liver disease.

Statistically, 60–70% of chronically-infected persons develop chronic liver disease, 5-20% develop cirrhosis, and 1–5% die from cirrhosis or liver cancer.

Treatment

Interferon and ribaviron-based therapy has been the mainstay of HCV treatment. Unfortunately, interferon is not widely available globally, is not always well tolerated, some genotypes respond better than others, and many people who take it do not finish their treatment. While HCV is generally considered to be a curable disease, for many persons this is not a reality. Fortunately, scientific advances and intense research and development have led to the development of many new oral antiviral drugs for HCV infection. The future seems to hold great promise for HCV specific oral drugs that will be more effective and better tolerated. Much still needs to be done to ensure that these advances lead to greater access and treatment globally.

WHO response

The first official WHO World Hepatitis Day, 28 July 2011, is marked to increase the awareness and understanding of viral hepatitis and the diseases that it causes. It provides an opportunity to focus on specific actions such as:

- strengthening prevention, screening and control of viral hepatitis and its related diseases;
- increasing hepatitis B vaccine coverage and integration into national immunization programmes; and
- coordinating a global response to hepatitis.