Introduction to hepatitis C virus

The word hepatitis comes from the Ancient Greek word for liver (hepar) and the Latin word for inflammation (itis). Chemicals, drugs, excessive alcohol consumption or blood-borne viruses can all cause inflammation to the liver.

What is hepatitis C?

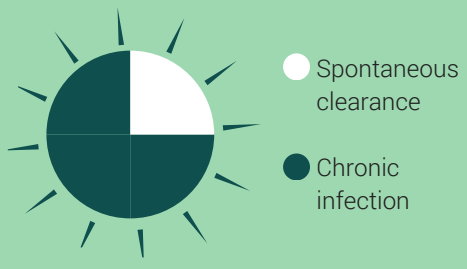
Hepatitis C is an infection caused by the hepatitis C virus and which leads to inflammation of the liver. Infection can occur through blood-to-blood contact due to the sharing of contaminated needles or syringes, unsafe injection and other skin penetration practices, inadequate sterilisation of medical equipment, and the transfusion of unscreened blood and blood products. In the prison setting, the most common mode of transmission is the sharing of unsterile injecting equipment. Currently there is no vaccine for hepatitis C.

Symptoms and diagnosis

Most people who are infected with hepatitis C have no signs or symptoms following their initial infection. But if these do occur, common symptoms and signs may include:

- Nausea and vomiting
- Abdominal pain
- Tiredness
- Loss of appetite
- Yellowing of the skin (jaundice) and the whites of the eyes (conjunctivia) - this is rare
- Dark urine

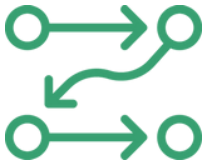
About 20-25% of people acutely infected will clear the virus naturally. A person can be re-infected with hepatitis C throughout their life and those who do not clear the virus will progress to having a chronic infection.



A person living with chronic hepatitis C may not know they have it because it can take many years for symptoms to appear. Consequently, many people live undiagnosed for years. Some cannot identify how or when they were infected.

Impact on the liver

Over time, hepatitis C infection can seriously impair liver function, causing fibrosis or cirrhosis (scarring of the liver), and this can lead to hepatocellular carcinoma (HCC; liver cancer).



The rate of progression to cirrhosis is variable and depends on several factors, including age of initial infection, sex, alcohol consumption, co-infections including HIV and hepatitis B virus, and obesity. Up to 30% of people living with chronic hepatitis C infection will develop cirrhosis within the first 20 years after infection.

Geographical distribution

Globally, an estimated 50 million people have chronic hepatitis C virus infection, with about 1.0 million new infections occurring per year (WHO, 2024).

50 million people

Testing and treatment

Testing for the virus is simple and involves an initial test to check for hepatitis C antibodies, which indicate if someone has ever been infected with the virus. If this antibody test is positive then a confirmatory blood test is needed to check for chronic infection (HCV RNA).

There are highly effective anti-viral medications available for the treatment of chronic hepatitis C infection that are curative and also reduce the risk of any long term complications. The new treatments that are now widely available (known as direct acting antivirals (DAAs)) are extremely effective, easier to take (short course oral medication) and have fewer side-effects than the old medications (i.e interferon). Regular testing should be conducted amongst groups with ongoing risk, such as people in prison and people who inject drugs, and retreatment should be offered to those who are reinfected.

Hepatitis C Genotypes

There are eight main genotypes (viral strains) of hepatitis C worldwide, each with numerous subtypes, and their distribution varies by region. Knowing the genotype used to be important when making decisions about treatment, however there are now pangenotypic regimens available which can be used to treat all genotypes.

This resource was originally developed by the International Network on Health and Hepatitis in Substance Users (INHSU) in collaboration with the European Centre for Disease Prevention and Control (ECDC) and the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) for the Viral Hepatitis Elimination in European Prisons Toolkit. It has been adapted for this toolkit by INHSU Prisons.

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