

Hepatitis C

Definition of Hepatitis C

- Infection of hepatocytes caused by hepatitis C virus

Epidemiology of Hepatitis C

- Incidence 0.5% in UK
- Much higher in Africa, and IV drug users.

Causes of Hepatitis C

- Hepatitis C virus – an RNA virus
- Predominantly blood-borne transmission but sexual and vertical transmission can occur.

Presentations of Hepatitis C

- Rarely presents acutely and then only as a mild flu-like illness
- 85% develop chronic infection
- Presents as chronic liver disease (see [CLD page](#))

Differential diagnosis of Hepatitis C

- Any cause of chronic liver disease (see [CLD page](#))

Genotypes of Hepatitis C

- There are 11 distinct genotypes of hepatitis C virus and many different subtypes
- Genotypes 1-3 are the most common and have worldwide distribution
- Genotypes 1a and 1b account for 60% of all disease and traditionally were the most difficult subtypes to treat. This is now changing with the development of new direct acting antiviral agents.

Initial management of Hepatitis C

- Investigations as per any other cause of chronic liver disease (see [CLD page](#))
- HCV RNA levels
- Anti-HCV IgM
- Ultrasound liver and alphafetoprotein
 - Every 6 months in those patients with cirrhosis to monitor for HCC
- Liver biopsy

Treatment of Hepatitis C

- The development of highly effective protease inhibitors which have been available since 2011 has significantly altered the landscape of hepatitis C treatment.
- The aim of chronic hepatitis C treatment is now full viral load suppression with the intent to cure patients of this disease.
- Several new drugs have been approved in the last few years and many more are on the way.
- This information is correct at the time of publication but is likely to change as well as be subject to national and local policies with regard to funding and availability.
- The AASLD and EASL guidelines can provide thorough up to date information on which drugs are currently available for treatment.

- Treatment should be prioritised for those:
 - With significant fibrosis or cirrhosis
 - With HIV/HBV coinfection
 - Pre/post liver transplantation
 - At high risk of transmitting the virus
- There are a number of treatment regime options and the choice will be determined by the patient genotype, possible drug interactions and previous drug treatment.
- **Genotype 1 treatment**
 - Traditionally the most difficult genotype to treat – this has now changed with the advent of direct-acting antiviral agents
 - Sofusbovir plus ribavirin and peg-interferon
 - Sustained viral response >90% cases
 - Ledipasvir-sofosbuvir
 - An 8-12 week course gives a sustained viral response (SVR) in >94% cases
 - Simeprevir plus sofosbuvir
 - This is given for 12-24 weeks
 - Peg-interferon and ribavirin
 - The traditional agents used in genotype 1 which give viral suppression in only 40-50% cases
- **Genotypes 2 & 3**
 - Ribavirin + sofosbuvir +/- peg-interferon

Complications of Hepatitis C

- Chronic infection which can lead to chronic liver disease, cirrhosis and its complications including HCC (see **decompensated CLD** page)

Prognosis of Hepatitis C

- It is estimated that approximately 350 million people die every year from hepatitis C and its complications
- With new treatments however, improved prognosis for chronic hepatitis C and potentially a cure looks very promising.
- However, these new drugs are currently prohibitively expensive and not therefore available to the vast majority of people in the world who are living with chronic hepatitis C.

Common questions concerning Hepatitis C:

How is hepatitis C transmitted?

- Predominantly blood-borne transmission but sexual and vertical transmission can occur.

What are the hepatitis C genotypes?

- There are 11 distinct genotypes of hepatitis C virus and many different subtypes
- Genotypes 1-3 are the most common and have worldwide distribution
- Genotypes 1a and 1b account for 60% of all disease and traditionally were the most difficult subtypes to treat. This is now changing with the development of new direct acting antiviral agents.

What are the complications of chronic hepatitis C?

- Chronic infection which can lead to chronic liver disease, cirrhosis and its complications including HCC (see **decompensated CLD** page)

