

Hepatitis E

Key facts

- Hepatitis E is a liver disease caused by infection with a virus known as hepatitis E virus (HEV).
- HEV is transmitted via the faecal–oral route, principally via contaminated water.
- Hepatitis E is usually self-limiting, but in some cases it may develop into fulminant hepatitis (acute liver failure).
- Fulminant hepatitis occurs more frequently when hepatitis E occurs during pregnancy.
- A vaccine to prevent hepatitis E virus infection has been developed and is licensed in China, but is not yet available elsewhere.

Disease epidemiology

- Globally, each year there are around 20 million cases of HEV infections with over 3 million acute cases of hepatitis E and around 57 000 hepatitis E related deaths.
- The disease is common in resource-limited countries with limited access to essential water, sanitation, hygiene and health services. In such areas, the disease occurs both as outbreaks and as sporadic cases.
- The outbreaks usually follow periods of faecal contamination of drinking water supplies and may affect several hundred to several thousand people. Some of these outbreaks have occurred in areas of conflict and humanitarian emergencies, such as war zones and in camps for refugees or internally displaced populations (IDP) – situations where sanitation and safe water supply pose special challenges.

Transmission

- The hepatitis E virus is transmitted mainly through the faecal–oral route due to faecal contamination of food and drinking water.
- In some instances, it can also be transmitted through infected blood products and from an infected mother to her baby at birth.

Symptoms

- Signs and symptoms of hepatitis include jaundice (yellow colour of the skin and sclera of the eyes, dark urine and pale stools), anorexia, abdominal pain and tenderness, nausea, vomiting and fever and an enlarged and tender liver.
- In rare cases, acute hepatitis E can be severe, and results in fulminant hepatitis (acute liver failure); these patients are at risk of death. Fulminant hepatitis occurs more frequently when hepatitis E occurs during pregnancy. Pregnant women with hepatitis E, particularly those in the second or third trimester, are at an increased risk of acute liver failure, fetal loss and mortality. Case fatality rates as high as 20–25% have been reported among pregnant women in their third trimester.

Diagnosis

- The diagnosis of acute hepatitis E is established by detecting anti-HEV IgM in serum. Clinically, hepatitis E cases are difficult to distinguish from other types of acute viral hepatitis.

Treatment

- Since the disease is self-limiting, hospitalization is generally not required, except for those with fulminant hepatitis. Hospitalization must also be considered for infected pregnant women.

Prevention

- Prevention is the best approach to guard against the disease.
- Provision of public water supply that is of the desired quality, and proper disposal systems for sanitary waste, are important preventive measures.
- On an individual basis, good hand washing practices and avoidance of eating uncooked food is important.
- Travellers should avoid drinking unboiled or unchlorinated water and beverages that contain unboiled water or ice. Travellers should eat only thoroughly cooked food, particularly so for seafood and meat.
- A vaccine to prevent hepatitis E virus infection has been developed and is licensed in China, but is not yet available elsewhere.

WHO response

The WHO Strategic Advisory Group of Experts (SAGE) on Immunization issued a position paper on hepatitis E in 2015. The paper recommends the following:

- WHO recognizes the importance of hepatitis E as a public health problem in many developing countries, particularly among special populations such as pregnant women, individuals living in camps for displaced persons and in outbreak situations.
- WHO does not make a recommendation on the introduction of the vaccine for routine use in national programmes in populations where epidemic and sporadic hepatitis E disease is common. However, national authorities may decide to use the vaccine based on the local epidemiology.
- Due to the lack of sufficient information on safety, immunogenicity and efficacy in the following population subgroups, WHO does not recommend routine use of the vaccine in children aged under 16 years, pregnant women, people with chronic liver disease, people on organ transplant waiting lists and travellers.
- There may be special situations such as outbreaks where the risk of hepatitis E or of its complications or mortality is particularly high. The current WHO position concerning routine programmes should not preclude the use of the vaccine in these specific situations. In particular, the use of the vaccine to mitigate or prevent outbreaks of hepatitis E should be considered as well as the use of the vaccine to mitigate consequences in high-risk groups such as pregnant women.

WHO organizes World Hepatitis Day on 28 July every year to increase awareness and understanding of viral hepatitis.