



Hepatitis A

9 July 2019

Key facts

- **Hepatitis A is a viral liver disease that can cause mild to severe illness.**
 - **The hepatitis A virus (HAV) is transmitted through ingestion of contaminated food and water or through direct contact with an infectious person.**
 - **Almost everyone recovers fully from hepatitis A with a lifelong immunity. However, a very small proportion of people infected with hepatitis A could die from fulminant hepatitis.**
 - **WHO estimates that hepatitis A caused approximately 7 134 deaths in 2016 (accounting for 0.5% of the mortality due to viral hepatitis).**
 - **The risk of hepatitis A infection is associated with a lack of safe water, and poor sanitation and hygiene (such as dirty hands).**
 - **In countries where the risk of infection from food or water is low, there are outbreaks among men who have sex with men (MSM) and persons who inject drugs (PWIDs).**
 - **Epidemics can be prolonged and cause substantial economic loss.**
 - **A safe and effective vaccine is available to prevent hepatitis A.**
 - **Safe water supply, food safety, improved sanitation, hand washing and the hepatitis A vaccine are the most effective ways to combat the disease. Persons at high risk, such as travelers to countries with high levels of infection, MSM and PWIDs can get vaccinated.**
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Hepatitis A is a liver disease caused by the hepatitis A virus (HAV). The virus is primarily spread when an uninfected (and unvaccinated) person ingests food or water that is contaminated with the faeces of an infected person. The disease is closely associated with unsafe water or food, inadequate sanitation, poor personal hygiene and oral-anal sex.

Unlike hepatitis B and C, hepatitis A does not cause chronic liver disease and is rarely fatal, but it can cause debilitating symptoms and fulminant hepatitis (acute liver failure), which is often fatal. Overall, WHO estimated that in 2016, 7 134 persons died from hepatitis A worldwide (accounting for 0.5% of the mortality due to viral hepatitis).

Hepatitis A occurs sporadically and in epidemics worldwide, with a tendency for cyclic recurrences. The hepatitis A virus is one of the most frequent causes of foodborne infection. Epidemics related to contaminated food or water can erupt explosively, such as the epidemic in Shanghai in 1988 that affected about 300 000 people¹. They can be also prolonged, affecting communities for months through person-to-person transmission. Hepatitis A viruses persist in the environment and can withstand food-production processes routinely used to inactivate and/or control bacterial pathogens.

The disease can lead to significant economic and social consequences in communities. It can take weeks or months for people recovering from the illness to return to work, school, or daily life. The impact on food establishments identified with the virus, and local productivity in general, can be substantial.

Geographical distribution

Geographical distribution areas can be characterized as having high, intermediate or low levels of hepatitis A virus infection. However, infection does not mean disease because children infected young do not experience any noticeable symptoms.

Areas with high levels of infection

In low- and middle-income countries with poor sanitary conditions and hygienic practices, infection is common and most children (90%) have been infected with the hepatitis A virus before the age of 10 years, most often without symptoms². Epidemics are uncommon because older children and adults are generally immune. Symptomatic disease rates in these areas are low and outbreaks are rare.

Areas with low levels of infection

In high-income countries with good sanitary and hygienic conditions, infection rates are low. Disease may occur among adolescents and adults in high-risk groups, such as PWIDs, MSMs, people travelling to areas of high endemicity, and in isolated populations, such as closed religious groups. In the United States of America, large outbreaks have been reported among homeless persons.

Areas with intermediate levels of infection

In middle-income countries, and regions where sanitary conditions are variable, children often escape infection in early childhood and reach adulthood without immunity. Ironically, these improved economic and sanitary conditions may lead to accumulation of adults who have never been infected and who have no immunity. This higher susceptibility in older age groups may lead to higher disease rates and large outbreaks can occur in these communities.

Transmission

The hepatitis A virus is transmitted primarily by the faecal-oral route; that is when an uninfected person ingests food or water that has been contaminated with the faeces of an infected person. In families, this may happen through dirty hands when an infected person prepares food for family members. Waterborne outbreaks, though infrequent, are usually associated with sewage-contaminated or inadequately treated water.

The virus can also be transmitted through close physical contact (such as oral-anal sex) with an infectious person, although casual contact among people does not spread the virus.

Symptoms

The incubation period of hepatitis A is usually 14–28 days.

Symptoms of hepatitis A range from mild to severe, and can include fever, malaise, loss of appetite, diarrhea, nausea, abdominal discomfort, dark-coloured urine and jaundice (a yellowing of the skin and whites of the eyes). Not everyone who is infected will have all of the symptoms.

Adults have signs and symptoms of illness more often than children. The severity of disease and fatal outcomes are higher in older age groups. Infected children under 6 years of age do not usually experience noticeable symptoms, and only 10% develop jaundice. Among older children and adults, infection usually causes more severe symptoms, with jaundice occurring in more than 70% of cases. Hepatitis A sometimes relapses. The person who just recovered falls sick again with another acute episode. This is, however, followed by recovery.

Who is at risk?

Anyone who has not been vaccinated or previously infected can get infected with hepatitis A virus. In areas where the virus is widespread (high endemicity), most hepatitis A infections occur during early childhood. Risk factors include:

- **poor sanitation;**
- **lack of safe water;**
- **living in a household with an infected person;**
- **being a sexual partner of someone with acute hepatitis A infection;**
- **use of recreational drugs;**
- **sex between men;**
- **travelling to areas of high endemicity without being immunized.**

Diagnosis

Cases of hepatitis A are not clinically distinguishable from other types of acute viral hepatitis. Specific diagnosis is made by the detection of HAV-specific Immunoglobulin G (IgM) antibodies in the blood. Additional tests include reverse transcriptase polymerase chain reaction (RT-PCR) to detect the hepatitis A virus RNA, and may require specialized laboratory facilities.

Treatment

There is no specific treatment for hepatitis A. Recovery from symptoms following infection may be slow and may take several weeks or months. Most important is the avoidance of unnecessary medications. Acetaminophen / Paracetamol and medication against vomiting should not be given.

Hospitalization is unnecessary in the absence of acute liver failure. Therapy is aimed at maintaining comfort and adequate nutritional balance, including replacement of fluids that are lost from vomiting and diarrhea.

Prevention

Improved sanitation, food safety and immunization are the most effective ways to combat hepatitis A.

The spread of hepatitis A can be reduced by:

- **adequate supplies of safe drinking water;**
- **proper disposal of sewage within communities; and**
- **personal hygiene practices such as regular hand-washing before meals and after going to the bathroom.**

Several injectable inactivated hepatitis A vaccines are available internationally. All are similar in terms of how well they protect people from the virus and their side-effects. No vaccine is licensed for children younger than 1 year of age. In China, a live oral vaccine is also available.

Nearly 100% of people develop protective levels of antibodies to the virus within 1 month after injection of a single dose of vaccine. Even after exposure to the virus, a single dose of the vaccine within 2 weeks of contact with the virus has protective effects. Still, manufacturers recommend 2 vaccine doses to ensure a longer-term protection of about 5 to 8 years after vaccination.

Millions of people have received injectable inactivated hepatitis A vaccine worldwide with no serious adverse events. The vaccine can be given as part of regular childhood immunizations programmes and also with other vaccines for travellers.

Immunization efforts

Vaccination against hepatitis A should be part of a comprehensive plan for the prevention and control of viral hepatitis. Planning for large-scale immunization programmes should involve careful economic evaluations and consider alternative or additional prevention methods, such as improved sanitation, and health education for improved hygiene practices.

Whether or not to include the vaccine in routine childhood immunizations depends on the local context. The proportion of susceptible people in the population and the level of exposure to the virus should be considered. Generally speaking, countries with intermediate endemicity will benefit the most from universal immunization of children. Countries with low endemicity may consider vaccinating high-risk adults. In countries with high endemicity, the use of vaccine is limited as most adults are naturally immune.

- **Countries with immunization schedules that include hepatitis A**

As of May 2019, 34 countries used or were planning to introduce hepatitis A vaccine in routine immunization of children in specific risk groups.

While the 2 dose regimen of inactivated hepatitis A vaccine is used in many countries, other countries may consider inclusion of a single-dose inactivated hepatitis A vaccine in their immunization schedules. Some countries also recommend the vaccine for people at increased risk of hepatitis A, including:

- **users of recreational drugs;**
- **travellers to countries where the virus is endemic;**
- **men who have sex with men; and**
- **people with chronic liver disease (because of their increased risk of serious complications if they acquire hepatitis A infection).**

Regarding immunization for outbreak response, recommendations for hepatitis A vaccination should also be site-specific. The feasibility of rapidly implementing a widespread immunization campaign needs to be included.

Vaccination to control community-wide outbreaks is most successful in small communities, when the campaign is started early and when high coverage of multiple age groups is achieved. Vaccination efforts should be supplemented by health education to improve sanitation, hygiene practices and food safety.

WHO response

In May 2016, The World Health Assembly adopted the first “*Global Health Sector Strategy on Viral Hepatitis, 2016-2021*”. The strategy highlights the critical role of Universal Health Coverage and the targets of the strategy are aligned with those of the Sustainable Development Goals. The strategy has a vision of eliminating viral hepatitis as a public health problem and this is encapsulated in the global targets of reducing new viral hepatitis infections by 90% and reducing deaths due to viral hepatitis by 65% by 2030. Actions to be taken by countries and WHO Secretariat to reach these targets are outlined in the strategy.

To support countries in moving towards achieving the global hepatitis goals under the Sustainable Development Agenda 2030 WHO is working in the following areas:

- **raising awareness, promoting partnerships and mobilizing resources;**
- **formulating evidence-based policy and data for action;**
- **preventing transmission; and**
- **scaling up screening, care and treatment services.**

WHO published the "Progress report on HIV, viral hepatitis and sexually transmitted infections, 2019", outlining its progress towards elimination. The report sets out global statistics on viral hepatitis B and C, the rate of new infections, the prevalence of chronic infections and mortality caused by these 2 high-burden viruses, as well as coverage of key interventions, all current as at the end of 2016 and 2017.

Since 2011, together with national governments, civil society and partners, WHO has organized annual World Hepatitis Day campaigns (as 1 of its 9 flagship annual health campaigns) to increase awareness and understanding of viral hepatitis. The date of 28 July was chosen because it is the birthday of Nobel-prize winning scientist Dr Baruch Bloomberg, who discovered the hepatitis B virus and developed a diagnostic test and vaccine for the virus.

For World Hepatitis Day 2019, WHO is focusing on the theme "Invest in eliminating hepatitis" to highlight the need for increased domestic and international funding to scale up hepatitis prevention, testing and treatment services, in order to achieve the 2030 elimination targets.

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- **[An epidemic of hepatitis A attributable to the ingestion of raw clams in Shanghai, China.](#)**

Halliday ML1, Kang LY, Zhou TK, Hu MD, Pan QC, Fu TY, Huang YS, Hu SL. J Infect Dis. 1991 Nov;164(5):852-9.

- [Hepatitis A virus seroprevalence by age and world region, 1990 and 2005.](#) Jacobsen KH, Wiersma ST. Hepatitis A virus seroprevalence by age and world region, 1990 and 2005. Vaccine 28 (2010) 6653–6657.

Guidelines & manuals

- [Hepatitis C treatment](#)
- [Hepatitis B treatment](#)
- [Monitoring and evaluation of hepatitis B and C](#)
- [Hepatitis E waterborne outbreaks](#)
- [Development of national viral hepatitis plans](#)

More about hepatitis

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Publications

- [WHO's publications](#)