

## Global paediatric hepatitis outbreak

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Madam, WHO is investigating a global outbreak of severe acute hepatitis of questionable aetiology among children. Since this is not linked to Hepatitis types A-E, there are still ongoing investigations to explore the causative agent for this worldwide outbreak. At least 228 cases of acute hepatitis of unknown origin had been recorded from 20 countries since May 1, 2022, in Europe, America and other countries, with the highest number of cases recorded in the United Kingdom, 145 since January.<sup>1</sup> Adenovirus was found in 74 individuals, suggesting that there may be a possible association. However, this hypothesis needs further investigation. The United Kingdom has recently witnessed an increase in adenovirus infections; however, this might be due to increased testing rather than this epidemic.<sup>2</sup> As a result, affected countries have increased their surveillance efforts and are receiving additional support from WHO.

Although the cases ranged in age from one month to sixteen years, the majority of the children who were affected were under the age of five and had gastrointestinal symptoms such as abdominal pain, nausea, and diarrhoea, as well as jaundice and elevated liver enzymes (AST and ALT greater than 500 IU/L). Infectious hepatitis (Types A, B, C, D, E), is the most common cause of hepatitis, was not found. Around 10% of these children have needed a liver transplant, and at least one has died. WHO's working probable case definition has been an individual presenting with acute hepatitis (non-hepatitis A-E) with serum transaminase >500 IU/L (AST or ALT), who is 16 years or younger, since 1 October 2021.<sup>1,2</sup> Hepatitis is a liver inflammation caused by viral infections, primarily the Hepatitis A, B, and C viruses, as well as a variety of other factors such as alcohol consumption, drugs, medicines, and other medical disorders. Fever, exhaustion, lack of appetite, nausea, vomiting, stomach discomfort, dark urine, light-coloured stools, joint pain, and jaundice are all signs and symptoms of hepatitis. The underlying cause determines the hepatitis treatment.<sup>3</sup> Parents and doctors are advised to look out for these signs and symptoms. Adenovirus, a double-stranded DNA virus distributed by close

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contact, respiratory droplets, and fomites, is most commonly associated with respiratory illness. It may also cause conjunctivitis, diarrhoea, cystitis, and neurological problems. There is no specific treatment for adenovirus infections.<sup>4</sup> Adenovirus has not been linked to liver inflammation, but Adenovirus 41, a variant of the virus, has been identified in a number of children who have been affected by the hepatitis outbreak. Therefore, further research is needed to validate this association. Health officials have also ruled out the COVID-19 pandemic as a probable cause as well as the vaccines since the age group affected is not vaccinated because most of them are too young to be eligible.<sup>5</sup>

The fast development of peculiar severe hepatitis with an unknown origin among children has caused alarm throughout the world. Clinicians, particularly paediatricians, should watch for any signs and symptoms in this age range that might indicate hepatitis of unknown cause. To obtain aid from healthcare at an early stage and hence adequate treatment, it is essential that parents must be informed and made aware of this global outbreak.

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## References

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