

**Alabama Department of Public Health (ADPH)
Alabama Emergency Response Technology (ALERT)
Health Alert Network (HAN)
April 21, 2022**

Recommendations for Adenovirus Testing and Reporting of Children with Acute Hepatitis of Unknown Etiology Summary

Since November 2021, the Alabama Department of Public Health (ADPH), in collaboration with pediatric healthcare providers (including hospitals who treat children) and the Centers for Disease Control and Prevention, has been investigating an increase in young children from across the state who have presented to the emergency department with gastrointestinal symptoms (including diarrhea, nausea, severe fatigue, and/or vomiting) and varying degrees of hepatic injury (e.g., jaundice, acute liver injury/failure, hemophagocytic lymphohistiocytosis, etc.). None of these children have had any underlying health conditions of note.

A call for cases was issued in February 2022 to determine the extent of the cluster. To date, nine children (<10 years old) have been identified. Two have subsequently required liver transplantation. All (100%) were positive for Adenovirus by RT-PCR on whole blood; of those, five (56%) were confirmed as Adenovirus Type 41. None had a cycle threshold (Ct) value within range (max: 34-36) to assess relatedness via whole genome sequencing.

On April 8, 2022, public health officials in the United Kingdom (U.K.) reached out to CDC regarding an increase of pediatric hepatitis they had been experiencing since January 2022. After a call for cases in the U.K., 74 cases were identified who were under the age of 10 years, had severe acute hepatitis with elevated liver enzymes (>500 ALT/AST), and were negative for viral hepatitis. Of those, roughly one quarter (25%) were positive for Adenovirus; many have been subsequently typed as Adenovirus Type 41. There have also been similar reports in Spain.

Adenoviruses are common viruses that typically cause a mild, self-limiting flu-like or gastrointestinal illness. Rarely, in otherwise healthy individuals, do these viruses cause an illness so severe that they need to be hospitalized and may die.

Adenoviruses are usually spread from an infected person to others through:

- close personal contact, such as touching or shaking hands
- the air by coughing and sneezing
- touching an object or surface with adenoviruses on it, then touching your mouth, nose, or eyes before washing your hands
- contact with stool, for example, during diaper changing

Adenoviruses are often resistant to common disinfectants and can remain infectious for long periods of time on surfaces and objects. There are a few basic steps individuals can take to protect themselves from getting sick:

- Wash your hands often with soap and water for at least 20 seconds, and help young children do the same.
- Avoid touching your eyes, nose, or mouth with unwashed hands.
- Avoid close contact with people who are sick.

Once again, we are asking for help from Alabama's healthcare community. We encourage healthcare providers to report any children less than 10 years of age with elevated (>500 U/L) aspartate aminotransferase (AST) or alanine aminotransferase (ALT) who have an unknown etiology for their hepatitis (with or without any adenovirus testing results, independent of the results) since October 1, 2021.

If you have a patient under your care with a similar illness, but have not considered testing them for adenovirus, we encourage you to do so by sending specimens to a laboratory that tests using whole blood.

Providers please submit a report(s) at the following link:

<https://redcap.link/cz2y9cez>

For additional information:

<https://www.cdc.gov/adenovirus/index.html>