



www.scchealth.co

OFFICIAL COMMUNICATIONS

St. Clair County Health Department

2022

SCCHD- 02

ISSUE DATE: 04/22/22

TO: St. Clair County Healthcare Providers, Hospital ICPs, Emergency Departments, ED Physicians, Clinicians, Pulmonologists, Long Term Care Facilities, OB/GYNs

FROM: Chris Czubachowski RN, BS
SCCHD C.D. Coordinator
P: 810- 987-5300 F: 810-985-4340

RECOMMENDATIONS FOR ADENOVIRUS TESTING AND REPORTING OF CHILDREN WITH ACUTE HEPATITIS OF UNKNOWN ETIOLOGY

In November 2021, an Alabama hospital notified CDC of five pediatric patients with significant liver injury, including three with acute liver failure, who also tested positive for adenovirus. All children were previously healthy. Case-finding efforts found four additional pediatric patients with hepatitis and adenovirus infection for a total of nine patients admitted from October 2021 through February 2022; all five that were sequenced had adenovirus type 41 infection identified. Two patients required liver transplant; no patients died. A possible association between pediatric hepatitis and adenovirus infection is currently under investigation.

Hepatitis is inflammation of the liver that can be caused by viral infections, alcohol use, toxins, medications, and certain other medical conditions. Signs and symptoms of hepatitis include fever, fatigue, loss of appetite, nausea, vomiting, abdominal pain, dark urine, light-colored stools, joint pain, and jaundice. Treatment of hepatitis depends on the underlying etiology.

Adenoviruses are double-stranded DNA viruses that spread by close personal contact, respiratory droplets, and fomites. Adenoviruses most commonly cause respiratory illness but depending on the adenovirus type they can cause other illnesses such as gastroenteritis, conjunctivitis, cystitis, and, less commonly, neurological disease. There is no specific treatment for adenovirus infections.

Adenovirus type 41 commonly causes pediatric acute gastroenteritis, which typically presents as diarrhea, vomiting, and fever; it can often be accompanied by respiratory symptoms. While there have been case reports of hepatitis in immunocompromised children with adenovirus type 41 infection, adenovirus type 41 is not known to be a cause of hepatitis in otherwise healthy children.

Recommendations

1. Clinicians should consider adenovirus testing in pediatric patients with hepatitis of unknown etiology. NAAT (e.g. PCR) is preferable and may be done on respiratory specimens, stool or rectal swabs, or blood.
2. Anecdotal reports suggest that testing whole blood by PCR may be more sensitive than testing plasma by PCR; therefore, testing of whole blood could be considered in those without an etiology who tested negative for adenovirus in plasma samples.

Request for Notification of Possible Cases

1. St. Clair County Health Department is requesting notification from clinicians of children <10 years of age with elevated aspartate aminotransferase (AST) or alanine aminotransferase (ALT) (>500 U/L) who have an unknown etiology for their hepatitis (with or without any adenovirus testing results, independent of the results) since October 1, 2021.
2. If patients are still under medical care or have residual specimens available, please save and freeze them for possible additional testing and contact SCCHD.

Call SCCHD with questions or to report confirmed/suspected cases **(810) 987-5300** during regular business hours.