

4/22/2022

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

Action Requested:

1. **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. 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.
2. **Notify CDC by email at ncirddvdgast@cdc.gov 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.** If patients are still under medical care or have residual specimens available, please save and freeze them for possible additional testing and contact CDC at ncirddvdgast@cdc.gov for additional instructions.

Background:

Summary:

- The Centers for Disease Control and Prevention (CDC) is issuing this Health Alert Network (HAN) Health Advisory to notify clinicians and public health authorities of a cluster of children identified with hepatitis and adenovirus infection. A possible association between pediatric hepatitis and adenovirus infection is currently under investigation. Cases of pediatric hepatitis in children who tested negative for hepatitis viruses A, B, C, D, and E were reported earlier this month in the United Kingdom, including some with adenovirus infection. This Health Advisory serves to notify US clinicians who may encounter pediatric patients with hepatitis of unknown etiology to consider adenovirus testing and to elicit reporting of such cases to local and state public health authorities and to CDC. Nucleic acid amplification testing (NAAT, e.g. PCR) is preferred for adenovirus detection and may be performed on respiratory specimens, stool or rectal swabs, or blood.

Disease Information:

- Hepatitis is inflammation of the liver that can be caused by viral infections, alcohol use, toxins, medications, and certain other medical conditions. In the United States, the most common causes of viral hepatitis are hepatitis A, hepatitis B, and hepatitis C viruses. 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. There are more than 50 types of immunologically distinct adenoviruses that can cause infections in humans. Adenoviruses most commonly cause respiratory illness but depending on the

COMMUNICABLE DISEASE UPDATE

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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.

References

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

THANK YOU FOR REPORTING

TO REPORT A NOTIFIABLE CONDITION IN THURSTON COUNTY	
Voice mail for reporting non-immediately reportable conditions (24 hours a day)	Phone: 360-786-5470 Fax: 360-867-2601
Day time immediately reportable conditions – Call detailed information to the 24-hour Notifiable Condition Reporting Line at 360-786-5470. Messages are picked up hourly. If a call back can't wait call 360-867-2500 and ask staff to locate a Communicable Disease staff.	Phone: 360-786-5470
After hours immediately and 24-hour reportable conditions or a public health emergency	Call 1-800-986-9050
No one is available with Thurston County Public Health and condition is immediately notifiable	1-877-539-4344

Communicable Disease Updates are posted online at: <http://bit.ly/CDUpdatePHSS>