MISSISSIPPI STATE DEPARTMENT OF HEALTH

This is an official
MS Health Alert Network (HAN) Alert

MESSAGE ID:	**MSHAN-2020513-00572-ALT (Health Update)**
RECIPIENTS:	**All Physicians, Hospitals, ERs, ICPs, NPs, PAs, and Healthcare Providers – Statewide**
	Friday, May 13, 2022
SUBJECT:	**Updated Recommendations for Adenovirus Testing and Reporting of Children with Acute Hepatitis of Unknown Etiology**

Dear Colleagues,

The Centers for Disease Control and Prevention (CDC) has issued an updated Health Alert providing recommendations for adenovirus testing of children with acute hepatitis of unknown etiology (see previous Health Alert issued April 21, 2022 18757.pdf (ms.gov)).

As of May 5, 2022, CDC is reporting 109 children with hepatitis of unknown origin currently under investigation from 25 states and territories in the US; some dating back to October 2021. Of these, more than half have tested positive for adenovirus, more than 90% have been hospitalized, 14% have required liver transplants, and 5 deaths are under investigation.

To date, no cases have been reported from Mississippi, but the Mississippi State Department of Health (MSDH) is conducting surveillance to identify potential suspects requiring further investigation.

MSDH is asking Mississippi physicians and clinicians to:

- Continue to follow standard practice for evaluating and managing patients with hepatitis of known and unknown etiology.
- Clinicians are recommended to consider adenovirus testing for patients with hepatitis of unknown etiology.
- Because the potential relationship between adenovirus infection and hepatitis is still under investigation, clinicians should consider collecting the following specimen types if available from pediatric patients with hepatitis of unknown cause for adenovirus detection (contact the MSDH Office of Epidemiology with testing questions):
    - Blood specimen collected in Ethylenediaminetetraacetic Acid (EDTA) (whole blood, plasma, or serum); whole blood is preferred to plasma and serum)
    - Respiratory specimen (nasopharyngeal swab, sputum, or bronchioalveolar lavage [BAL])
    - Stool specimen or rectal swab; a stool specimen is preferred to a rectal swab
    - Liver tissue, if a biopsy was clinically indicated, or if tissue from native liver explant or autopsy is available:
        - Formalin-fixed, paraffin embedded (FFPE) liver tissue

    - Fresh liver tissue, frozen on dry ice or liquid nitrogen immediately or as soon as possible, and stored at ≤ -70°C
- **Report any cases of hepatitis of unknown etiology in children <10 years of age with elevated aspartate aminotransferase (AST) or alanine aminotransferase (ALT) (>500 U/L), with or without evidence of adenovirus infection, occurring from October 2021 to present.**
- **Reports can be made to the MSDH Office of Epidemiology at 601-576-7725.**

See the CDC Health Advisory for full details HAN Archive - 00465 | Health Alert Network (HAN) (cdc.gov)

Resources:

- Expanded testing guidance: Clinical Guidance for Adenovirus Testing and Typing of Patients Under Investigation
- Webinar Thursday, May 19, 2022 - Clinical Recommendations for Adenovirus Testing and Reporting of Children with Acute Hepatitis of Unknown Etiology (cdc.gov)

Regards,

Paul Byers, MD
State Epidemiologist

MISSISSIPPI STATE DEPARTMENT OF HEALTH

This is an official

CDC HEALTH UPDATE

Distributed via the CDC Health Alert Network
May 11, 2022, 12:15 PM ET
CDCHAN-00465

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

Summary

The Centers for Disease Control and Prevention (CDC) is issuing this Health Alert Network (HAN) Health Update to provide clinicians and public health authorities with updated information about an epidemiologic investigation of pediatric cases of hepatitis of unknown etiology in the United States. This investigation focuses on collecting information to describe the epidemiology, etiology, clinical presentation, severity, and risk factors related to illness and to identify any relationship between adenovirus infection or other factors and hepatitis. As of May 5, 2022, CDC and state partners are investigating 109 children with hepatitis of unknown origin across 25 states and territories, more than half of whom have tested positive for adenovirus with more than 90% hospitalized, 14% with liver transplants, and five deaths under investigation. Because this investigation is ongoing and includes reviewing cases of hepatitis of unknown cause with onset since October 2021, patients under investigation are not limited to current or newly diagnosed pediatric hepatitis illnesses.

This HAN Health Update also provides updated recommendations for testing specimens from patients under investigation. It is an update to a HAN Health Advisory that CDC issued on April 21, 2022, that initially notified clinicians and public health authorities of children identified with hepatitis of unknown origin and adenovirus infection.

Background

A cluster of pediatric cases of hepatitis without an apparent etiology was identified and reported to CDC in November 2021. A possible association between pediatric hepatitis and adenovirus infection is under investigation after laboratory testing identified adenovirus infection in all nine patients in the initial cluster; the five specimens that could be typed were all adenovirus type 41. Investigators continue to examine the role of other possible causes and identify contributing factors.

Recommendations for Clinicians

- Clinicians should continue to follow standard practice for evaluating and managing patients with hepatitis of known and unknown etiology.
- Clinicians are recommended to consider adenovirus testing for patients with hepatitis of unknown etiology and to report such cases to their state or jurisdictional public health authorities.
- Because the potential relationship between adenovirus infection and hepatitis is still under investigation, clinicians should consider collecting the following specimen types if available from pediatric patients with hepatitis of unknown cause for adenovirus detection:
    - Blood specimen collected in Ethylenediaminetetraacetic Acid (EDTA) (whole blood, plasma, or serum); whole blood is preferred to plasma and serum)
    - Respiratory specimen (nasopharyngeal swab, sputum, or bronchioalveolar lavage [BAL])

- Stool specimen or rectal swab; a stool specimen is preferred to a rectal swab
- Liver tissue, if a biopsy was clinically indicated, or if tissue from native liver explant or autopsy is available:
  - Formalin-fixed, paraffin embedded (FFPE) liver tissue
  - Fresh liver tissue, frozen on dry ice or liquid nitrogen immediately or as soon as possible, and stored at ≤ -70°C

Nucleic acid amplification testing (NAAT), such as polymerase chain reaction (PCR), is preferred for adenovirus detection (currently not available for FFPE liver biopsy or native liver explant). Testing whole blood by PCR is more sensitive to and is preferred over testing plasma by PCR.

Where possible, clinical specimens should be tested locally to ensure timely results for patient care. For any diagnostic testing needs beyond the local capacity, CDC recommends that clinicians contact their state public health laboratory.

For More Information

- Expanded testing guidance: Clinical Guidance for Adenovirus Testing and Typing of Patients Under Investigation
- Information for state health departments and laboratories: Instructions for Adenovirus Diagnostic Testing, Typing and Submission
- Email ncirddvdgast@cdc.gov with additional questions

The Centers for Disease Control and Prevention (CDC) protects people's health and safety by preventing and controlling diseases and injuries; enhances health decisions by providing credible information on critical health issues; and promotes healthy living through strong partnerships with local, national, and international organizations.

MISSISSIPPI STATE DEPARTMENT OF HEALTH

Alerting Message Specification Settings

Originating Agency:	Mississippi State Department of Health
Alerting Program:	**MS Health Alert Network (MS HAN)**
Message Identifier:	MSHAN-20220513-00572-**ALT**
Program (HAN) Type:	**Health Alert**
Status (Type):	Actual ()
Message Type:	Alert
Reference:	MSHAN-00572
Severity:	Unknown
Acknowledgement:	No
Sensitive:	Not Sensitive
Message Expiration:	Undetermined
Urgency:	Undetermined
Delivery Time:	600 minutes

Definition of Alerting Vocabulary and Message Specification Settings

Originating Agency: A unique identifier for the agency originating the alert.

Alerting Program: The program sending the alert or engaging in alerts and communications using PHIN Communication and Alerting (PCA) as a vehicle for their delivery.

Message Identifier: A unique alert identifier that is generated upon alert activation (MSHAN-yyymmdd-hhmm-TTT **(ALT=Health Alert, ADV=Health Advisory, UPD=Health Update, MSG/INFO=Message/Info Service**).

Program (HAN) Type: Categories of Health Alert Messages**.**

Health Alert: Conveys the highest level of importance; warrants immediate action or attention.

Health Advisory: Provides important information for a specific incident or situation; may not require immediate action.

Health Update: Provides updated information regarding an incident or situation; unlikely to require immediate action.

Health Info Service: Provides Message / Notification of general public health information; unlikely to require immediate action.

Status (Type):

Actual:	Communication or alert refers to a live event
Exercise:	Designated recipients must respond to the communication or alert
Test:	Communication or alert is related to a technical, system test and should be disregarded

Message Type:

Alert:	Indicates an original Alert
Update:	Indicates prior alert has been Updated and/or superseded
Cancel:	Indicates prior alert has been cancelled
Error:	Indicates prior alert has been retracted

Reference: For a communication or alert with a Message Type of "Update" or "Cancel", this attribute contains the unique Message Identifier of the original communication or alert being updated or cancelled. "n/a" = Not Applicable.

Severity:

Extreme:	Extraordinary threat to life or property
Severe:	Significant threat to life or property
Moderate:	Possible threat to life or property
Minor:	Minimal threat to life or property
Unknown:	Unknown threat to life or property

Acknowledgement: Indicates whether an acknowledgement on the part of the recipient is required to confirm that the alert was received, and the timeframe in which a response is required (Yes or No).

Sensitive:

Sensitive:	Indicates the alert contains sensitive content
Not Sensitive:	Indicates non-sensitive content

Message Expiration: Undetermined.

Urgency: Undetermined. Responsive action should be taken immediately.

Delivery Time: Indicates the timeframe for delivery of the alert (15, 60, 1440, 4320 minutes (.25, 1, 24, 72 hours)).