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DATE: April 19, 2022

TO: Healthcare Providers, Healthcare Facilities, Clinical Laboratories, and Local Health

Departments (LHDs)

FROM: New York State Department of Health (NYSDOH)

HEALTH ADVISORY: SEVERE HEPATITIS OF UNKNOWN ETIOLOGY IN CHILDREN

For all Clinical Staff in Pediatrics, Internal Medicine, Pulmonary and Intensive Care Medicine, Primary Care, Infectious Diseases, Emergency Medicine, Gastroenterology, Family Medicine, Laboratory Medicine, and Infection Control/Epidemiology

SUMMARY

- CDC and the Alabama Department of Health are investigating 9 cases of severe hepatitis of unknown etiology in otherwise healthy young children occurring since October of 2021. These affected children ranged in age from 1-6 years. Two of the children were severely ill and required liver transplants.
- No definitive cause has been identified; adenovirus 41 infection is suspected.
- Report suspected cases promptly to the local health department (LHD) where the patient resides.
 Contact information is available at: https://www.health.ny.gov/contact/contact_information. If you are unable to reach the LHD where the patient resides, please contact the NYSDOH Bureau of Communicable Disease Control at 518-473-4439 during business hours or 866-881-2809 evenings, weekends, and holidays.
 - NYSDOH will advise providers on the collection of appropriate specimens (e.g., CSF, serum, stool, and respiratory samples) for testing at the NYSDOH Wadsworth Center.

BACKGROUND

The Centers for Disease Control and Prevention (CDC) and the Alabama Department of Health are investigating 9 cases of severe hepatitis of unknown etiology in otherwise healthy young children occurring since October of 2021. The affected children ranged in age from 1-6 years. Two of the children were severely ill and required liver transplants. None of the cases was identified as being infected with hepatitis A, B, C, or E viruses.

In addition to the cases identified in the US, there have been multiple reports of severe hepatitis in otherwise healthy young children in Europe.^{2,3} This includes 74 children in the United Kingdom and 2 in Spain identified since January of 2021. All were admitted to hospital, and 7 required liver transplants.

None of the cases was identified as being infected with hepatitis A, B, C, or E viruses. Investigative questionnaires about food, drink, and exposures did not identify a common source. Cases have been said

to have had vomiting in the weeks preceding onset of jaundice and presented with exceptionally high levels of alanine aminotransferase (>2000 IU/L).

A small number of children tested positive for SARS-CoV-2 infection shortly before or upon hospital admission. As many as half were shown to be infected with adenovirus, a common virus passed by respiratory droplets and from touching infected people or virus on surfaces. It can cause vomiting, diarrhea, conjunctivitis, and cold symptoms but rarely causes hepatitis.

Adenovirus infection causing severe hepatitis is rare in children who are not immunocompromised. The possibility of a new variant with a distinct clinical presentation, a routinely circulating variant infecting younger children who are immunologically naïve, or other infectious causes are all being considered.

TESTING AND REPORTING OF SUSPECTED CASES

Providers should promptly report children with an <u>acute onset of hepatitis</u>, <u>jaundice</u>, <u>or high levels of transaminases</u> to the local health department (LHD) where the patient resides. Suspected cases should be reported regardless of local laboratory testing results (e.g., if negative for adenoviruses).

Contact information is available at: https://www.health.ny.gov/contact/contact_information. If you are unable to reach the LHD where the patient resides, please contact the NYSDOH Bureau of Communicable Disease Control at 518-473-4439 during business hours or 866-881-2809 evenings, weekends, and holidays.

NYSDOH will assist providers in collecting appropriate specimens (e.g., CSF, serum, stool, and respiratory samples) for testing as soon as possible to increase the possibility of finding a causative agent. Specimens will be tested at the NYSDOH Wadsworth Center. Wadsworth Center will also coordinate the possible submission of these specimens to CDC for testing for both infectious and non-infectious causes. **Specimens should not be sent directly to CDC**.

QUESTIONS

Questions regarding clinical or epidemiological information should be directed to your LHD or the NYSDOH Bureau of Communicable Disease Control at (518) 473-4439 and bcdc@health.ny.gov. Questions about infection control in healthcare facilities should be directed to the NYSDOH Bureau of Healthcare Associated Infections at (518) 474-1142 and icp@health.ny.gov.

¹ https://www.alabamap<u>ublichealth.gov/blog/2022/04/nr15.html</u>

² https://www.who.int/emergencies/disease-outbreak-news/item/acute-hepatitis-of-unknown-aetiology---the-united-kingdom-of-great-britain-and-northern-ireland

³ https://www.eurosurveillance.org/content/10.2807/1560-7917.ES.2022.27.15.2200318