

# Health Advisory: Pediatric Hepatitis, Adenovirus and Gastrointestinal Illness

Minnesota Department of Health, Tue Apr 26 13:00 CDT 2022

## Action Steps

**Local and tribal health department:** Please forward to hospitals, clinics, urgent care centers, emergency departments, and convenience clinics in your jurisdiction.

**Hospitals, clinics and other facilities:** Please forward to infection preventionists, internists, infectious disease doctors, emergency department staff and all other health care providers who might see patients with acute gastrointestinal or hepatic illness.

**Health care providers:**

- Consider adenovirus infection when evaluating pediatric patients, particularly those younger than 10 years, presenting with **gastrointestinal illness** with jaundice or hepatitis of unknown etiology.
- Test patients with clinically compatible illnesses for adenovirus using NAAT (e.g., PCR) on respiratory specimens, stool or rectal swabs, or blood. Anecdotal reports on cases found in Alabama suggest that testing whole blood may be more sensitive than testing plasma. This testing may be available at some clinical laboratories or providers can contact MDH if testing is unavailable. Testing for hepatitis A, hepatitis B, hepatitis C, and liver function are also recommended.
- Hold unused specimens until consultation with MDH occurs. This includes respiratory specimens, stool or rectal swabs, and EDTA blood specimens that remain after recommended testing is complete.
- Have heightened vigilance for pediatric patients presenting with symptoms of hepatitis, including fever, fatigue, loss of appetite, nausea, vomiting, abdominal pain, dark urine, light-colored stools, joint pain, and jaundice. Many of the cases reported worldwide have presented without fever.
- Report pediatric patients, particularly those younger than 10, with hepatitis of unknown etiology and with AST/ALT >500 or those with illness severe enough to be hospitalized since October 1, 2021 to the **Minnesota Department of Health** at 651-201-5414 or [Health.hepatitis@state.mn.us](mailto:Health.hepatitis@state.mn.us).

## Background

Pediatric patients presenting with hepatitis of unknown etiology, possibly linked to adenovirus infection, have been identified in 11 countries, including the US. Approximately 10% of known cases have required a liver transplant and there has been one reported death.

In November 2021, clinicians at a large children's hospital in Alabama 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. None had active COVID-19 infections. Case-finding efforts at this hospital identified four additional pediatric patients with hepatitis and adenovirus infection for a total of nine patients admitted from October 2021 through February 2022. Specimens from five patients were sequenced and found to be adenovirus type 41, which typically presents as a diarrheal illness. In two patients, plasma samples were negative for adenovirus by quantitative polymerase chain reaction (qPCR), but both patients were positive when retested using whole blood. Two patients required liver transplant; no patients died.

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 from multiple countries, including many with adenovirus infection.

## For More Information

- Call MDH at 651-201-5414 or 877-676-5414

A copy of this HAN is available at: [MDH Health Alert Network \(http://www.health.state.mn.us/han\)](http://www.health.state.mn.us/han)

The content of this message is intended for public health and health care personnel and response partners who have a need to know the information to perform their duties.