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Laboratory Services

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Hepatitis Awareness Month

Focus on Hepatitis A

Hepatitis A is a virus that can cause acute inflammation of the liver. It is a vaccine-preventable infection.

Before the introduction of routine childhood immunization with the hepatitis A vaccine, infections most commonly occurred in school-aged children. Since then, the number of infections occurring in children have significantly decreased. The overwhelming majority of cases now occur in adults who grew up before the vaccine was developed.

What are the symptoms of hepatitis A?

Most children younger than 6 years of age infected with hepatitis A virus will have no symptoms.

Older children and adults are much more likely to have symptoms, which typically include: fever, fatigue, stomach pain, nausea and vomiting, diarrhea, yellowing of the skin and eyes (referred to as 'jaundice'), light-colored stool and dark-colored urine.

How do children become infected with hepatitis A?

The hepatitis A virus is spread person-to-person by contact with the stool from an infected person, even in those who have no symptoms of infection. Young children may become infected in daycare settings that care for multiple diapered children. Children may also become infected during international travel, eating food prepared by a person infected with hepatitis A virus, or from close personal contact with a person infected with hepatitis A virus.

Hepatitis Testing at Nationwide Children's

Hepatitis A Antibody, IGM	Hepatitis B Core Antibody
Hepatitis B Surface Antibody Quantitative	Hepatitis B Surface Antigen with Reflex Confirmation
Hepatitis C Antibody (Total)	Hepatitis Profile

Reference: <https://www.nationwidechildrens.org/family-resources-education/700childrens>

Important Information Update for Community Physicians Regarding Changes in Courier Services

Courier Services Pick-Up Changes

Effective Monday, June 5 at 7:00 a.m.

NCH couriers will transition from lock box only pickups and return to picking up all samples, including STATS, inside client facilities. Clients will no longer be required to place all samples in their NCH Lock boxes prior to their scheduled pick-up times when their office is open. Couriers will also begin delivering all supplies to staff inside the practice.

Please note that all pickups that occur after the client facility closes will continue to occur in the NCH lock box that is placed outside the office.

If you have any questions about these changes, or if you wish to remain a lock box only pickup, please contact Client Services at 800-934-6575 or 614-722-5477. We appreciate the support you provided over the course of the pandemic.



Tick-and Mosquito-Borne Diseases in Children

Although anyone can get tick- and mosquito-borne diseases, children spend a lot of time outdoors and are at particular risk. Two primary concerns in the Midwest are Lyme disease and West Nile.

Lyme Disease

Lyme disease is caused by a spirochete-shaped bacterium called *Borrelia burgdorferi*. The bacteria is commonly found in mice and is transmitted to humans by the bite of an infected black legged tick, *Ixodes scapularis*, also known as the deer tick. Incidence of Lyme disease has increased steadily, with more than 241 reported cases in Ohio in 2017. The onset of most Lyme disease cases is in late spring and summer.

- **Early Signs and Symptoms** – Signs and symptoms of Lyme disease may begin to manifest 3 to 30 days after a tick bite. In addition to flu-like symptoms of fever, chills, headache, fatigue, swollen lymph nodes and muscle and joint aches, the classic erythema migrans (EM) rash may appear. The rash occurs in approximately 70-80 percent of infections. It begins at the site of the tick bite an average of 7 days after the bite but may appear 3 to 30 days later. The rash expands gradually over a period of days, reaching up 12 inches across. Sometimes the inner ring begins to clear, resulting in the target or “bull’s-eye” appearance. The rash may feel warm to the touch, but it is rarely itchy or painful.
- **Testing** – Lyme serology should be conducted if the epidemiology as well as signs and symptoms are consistent with possible Lyme disease.

An enzyme-linked fluorescent immunoassay (ELFA) screens for antibodies to the *Borrelia burgdorferi* complex. The assay detects total antibody (IgG and IgM) to *Borrelia burgdorferi* complex in human serum and is intended for use as an aid in diagnosis of Lyme disease.

Testing is not intended or indicated as a screening procedure for the general population, and it should be done only when exposure history or symptoms suggest Lyme disease.

La Crosse and West Nile, Arboviruses

The arboviruses are a group of viruses transmitted by arthropod vectors, particularly mosquitoes and ticks. The most commonly detected arboviruses in the United States belong to the following families: *Alphavirus* (Eastern equine encephalitis virus, Western equine encephalitis virus), *Flavivirus* (St. Louis encephalitis virus, West Nile Virus) and *Bunyavirus*

(LaCrosse encephalitis virus). In the Midwest, most cases of arboviral infection occur from June through October, when arthropods are most active.

- **Symptoms** – The severity of symptoms of La Crosse virus and West Nile virus infection in humans ranges from asymptomatic to severe and requiring hospitalization. While both occur in people of all ages, La Crosse is more common than West Nile in children in the Midwest. Symptoms of La Crosse generally appear 5-15 days after infection and include fever, headache, nausea, vomiting, fatigue and lethargy. In severe cases, neurological symptoms, including seizures, hemiparesis and cognitive abnormalities may occur.
- **Testing** – La Crosse Virus or West Nile Virus Antibodies, IgG and IgM
These tests are intended to be used as a means detecting La Crosse virus- or West Nile virus-specific IgG and IgM in serum or spinal fluid specimens in which there is a clinical suspicion of infection. Because other members of the Flaviviridae family, such as St. Louis encephalitis virus, show extensive cross-reactivity with West Nile virus, serologic testing specific for all of these viruses should be considered.

Reminders

Grove City Lab Reopening

Our Grove City Laboratory Services location will be back open **effective Monday, June 12, 2023**. We will reopen with our normal hours of operation, Monday-Friday 9:00 a.m. – 5:00 p.m.

Warm Weather Reminder

Now that summer has arrived, it is important that samples placed in a lockbox prior to transport to the laboratory be maintained at the appropriate temperature.

If refrigerated samples are stored in the lockbox, then a refrigerated cold pack should be placed in the lockbox to maintain the samples at the refrigerated temperature. The cold pack should not be frozen, since you do not want refrigerated whole blood samples to freeze.



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How can Nationwide Children's Laboratory Services help your practice?

If you would like to become a client or learn more information about Nationwide Children's Laboratory Services, contact us at (800) 934-6575 or visit our website at **NationwideChildrens.org/Lab**. Would you like to receive the Nationwide Children's Laboratory Services Newsletter electronically? Please e-mail us at **LaboratoryServices@NationwideChildrens.org** and let us know!

Lab Account Representatives are available via email to assist with any questions or concerns.

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