November 17, 2017

Dear Healthcare Colleague,

We wish to inform you that Isabella County has had 4 cases of acute hepatitis A virus (HAV) since September, 2017, and a total of 5 cases for all of 2017. Genotype testing to confirm if these cases are part of the ongoing outbreak in Southeastern Michigan is still pending. Prior to this year, Isabella County had not had a case of HAV since 2011. Due to this rapid increase in cases, Isabella County is currently experiencing an outbreak of acute hepatitis A infections. We urge you to be even more vigilant and maintain a high index of suspicion of HAV infection in individuals with elevated liver function tests along with jaundice or other symptoms of acute viral hepatitis.

Diagnosis: Positive testing for IgM antibody to hepatitis A virus (anti-HAV), along with acute onset of acute viral hepatitis (fever, headache, malaise, anorexia, nausea, vomiting, diarrhea, and/or abdominal pain) with either jaundice or elevated ALT or elevated AST.

- If a total antibody test is performed and is positive, an IgM test must be performed for confirmation.
  - The total antibody test measures both IgG and IgM. IgG will remain positive for a lifetime after vaccination or infection in most individuals; therefore a positive total anti-HAV cannot diagnose acute hepatitis A.
- IgM testing should only be performed in individuals with signs or symptoms of acute hepatitis with a high pretest probability of infection, as the test has a high false positive rate and can remain positive for 6 to 12 months after infection.
- Hepatitis A testing should not be part of the workup of non-acute, asymptomatic liver function abnormalities.

We also ask that you report all suspected and confirmed cases of hepatitis A to the health department as soon as they are identified.

Please encourage vaccination of any patient identified with high risk factors for infection that has not previously been vaccinated or had a confirmed case of hepatitis A. If possible, please stock and provide hepatitis A vaccination to your at-risk patients in your practice.

Those considered at highest risk for hepatitis A are:

- Persons with a history of substance abuse (both injection and non-injection drugs)
- Persons currently homeless or in transient living
- Men who have sex with men (MSM)
- Persons incarcerated in correctional facilities
- Persons who are in close contact with any of the above risk groups
- Persons with underlying liver disease (while not at higher risk of infection, these individuals are at increased risk of complications)

Vaccination has also been recommended for:

- Food handlers:
  - Food handlers with one or more of the above risk factors should be vaccinated with high priority
Michigan Department and Health and Human Services (MDHHS) is recommending that all other food handlers in outbreak areas be encouraged to receive the hepatitis A vaccination in an attempt to prevent any potential foodborne spread of hepatitis A due to an ill worker.

- Healthcare workers:
  - Routine hepatitis A vaccination of healthcare workers is not typically recommended by the ACIP.
  - In the outbreak areas, it is being recommended by MDHHS to vaccinate healthcare workers who care for patients.
  - Priority should be given to healthcare workers caring for the highest volume of high risk individuals, such as workers in emergency departments, EMS, paramedics, first responders, etc.
- Persons wishing to be immune to hepatitis A:
  - Any individual desiring immunity may be vaccinated if there is sufficient vaccine available.

Either monovalent hepatitis A vaccine (VAQTA® or Havirx®) or the combined HAV/HBV vaccine (Twinrix®) can be used for pre-exposure vaccination against hepatitis A.

**Postexposure Prophylaxis (PEP):** PEP is recommended for all close contacts of acute hepatitis A cases. Close contacts are household members, sexual contacts, those that share drugs with the infected individual, childcare center staff/attendees, and others with ongoing close contact. PEP is NOT routinely recommended to healthcare staff who provide care to an HAV-infected patient or those that attend school or work with a single HAV case.

Transmission of HAV from an infected food handler to patrons is typically unlikely, but depends on many factors and these situations must be handled on a case-by-case basis.

PEP consists of a dose of monovalent hepatitis A vaccine and/or 0.1mL/kg IM immune globulin (IG) **(NOTE:** this is NEW DOSE; in July 2017, the recommended dose for IMIG (GamaSTAN®S/D) was increased by the manufacturer due to declining HAV antibody levels in the U.S. blood supply). In order to be effective, it **should be administered within 14 days of exposure.** Vaccine is preferred in persons age 1-40 years as this group was studied and vaccine was found to be effective. However, HAV vaccine has been used in other counties for adults over 40 years of age for PEP with good success and with the benefit of long-lasting immunity.

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<th>HAV Postexposure Recommendations</th>
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<td>Age/years</td>
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<tr>
<td>Healthy</td>
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<td>Other‡</td>
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†When IG is unavailable or in short supply, single-antigen HAV vaccine may be used for PEP in healthy people 60-74 years of age and in infants >6 months of age.

Although there is no formal written recommendation published at this time, it has been recommended by the CDC via email communication to MDHHS that, due to the high risk of gestational complication, pregnant women exposed to HAV should be offered BOTH vaccination and IG. Other groups that should receive IG include: children <12 months of age; persons with chronic liver disease; persons for whom vaccine is contraindicated; and immunocompromised persons (defined in more detail in “General Principles” section of IDSA Clinical Practice Guideline for Vaccination of the Immunocompromised Host).

Intramuscular IG (GamaSTAN® S/D) is available in 2 mL and 10 mL single use vials. One source of IG is FFF Enterprises, which can be reached 24/7 at: 1-800-843-7477. The health department does not have IG available at this time. If it is determined that IG is needed, the health department will communicate with the hospital and/or the exposed person’s primary care provider to arrange for the appropriate dose to be administered either in the emergency department or outpatient infusion center. Useful, easy to use guidance documents for PEP and IG administration can be found on the California Department of Public Health, Hepatitis A website, under disease investigation (https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/Hepatitis-A.aspx#).

We understand that this document provides a large amount of information. For further guidance, feel free to contact me personally or your local branch office of the health department. You will also find continually updated information at www.michigan.gov/hepatitisAoutbreak and further information about HAV at https://www.cdc.gov/hepatitis/hav.

Sincerely,

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