TO: Healthcare Providers, Healthcare Facilities, Clinical Laboratories, and Local Health Departments (LHDs)

FROM: New York State Department of Health (NYSDOH)
Bureau of Communicable Disease Control (BCDC)

HEALTH ADVISORY: OUTBREAK OF HEPATITIS A VIRUS
For All Clinical Staff in Internal Medicine, Gastroenterology, Hepatology, Intensive Care Medicine, Geriatrics, Primary Care, Infectious Diseases, Emergency Medicine, Family Medicine, Laboratory Medicine, Psychiatry, Drug User Health and Infection Control/Epidemiology

SUMMARY
• In New York State (NYS), excluding New York City, the number of hepatitis A virus (HAV) cases reported from January through November 2019 has increased 235% compared to the average number of cases reported annually through November in 2016-2018.
  o Increases have been seen in all regions of the state. However, Dutchess, Erie, Jefferson, Niagara, Onondaga, Oswego, and Suffolk counties have been particularly impacted.
• Risk factors reported by NYS cases during this outbreak include non-injection and injection drug use, unstable housing/homelessness, current or recent incarceration, and men having sex with men.
• NYSDOH recommends that local health departments (LHDs), healthcare facilities, syringe exchange programs, drug user health hubs, and partners and programs providing services to these at-risk populations promote hepatitis A vaccination in concert with the recommendations of the Advisory Committee on Immunization Practices (ACIP).

BACKGROUND
Multiple states across the country have reported outbreaks of HAV, primarily among people who use injection drugs and people experiencing homelessness. More than 29,000 cases associated with person-to-person outbreaks of HAV have been reported since 2016 from 30 states, including approximately 17,500 hospitalizations and 296 deaths.

HAV is an enveloped RNA virus that can produce symptomatic or asymptomatic infection. The virus is shed in the stool, and person-to-person transmission occurs primarily through the fecal-oral route. While common-source outbreaks and sporadic cases can occasionally occur from exposure to fecally contaminated food or water, HAV is primarily spread from person-to-person in the United States.

HAV infection typically has an abrupt onset following an incubation period of approximately 28-30 days (range: 15 to 50 days). Importantly, individuals with HAV are infectious before symptoms occur. Infectivity begins in the two weeks before symptoms onset and continues to one week after onset.
OUTBREAK CONTROL
While good hygiene — including handwashing after using the bathroom, changing diapers, and before preparing or eating food — is integral to HAV prevention, the best way to prevent HAV infection is through vaccination with the hepatitis A vaccine.

The following groups are at highest risk for acquiring HAV infection or developing serious complications from HAV infection and should be offered the hepatitis A vaccine:

- People who use drugs (injection or non-injection)
- People experiencing homelessness or unstable housing
- Men who have sex with men (MSM)
- People who are, or were recently, incarcerated
- People with chronic liver disease, including cirrhosis, hepatitis B, or hepatitis C

One dose of single-antigen hepatitis A vaccine has been shown to control outbreaks of hepatitis A and provides up to 95% protection in healthy individuals for up to 11 years. The vaccination series can be completed with a second dose of HAV vaccine or by administering a complete series of hepatitis A-hepatitis B combination vaccine.

For post-exposure prophylaxis, ACIP recommends hepatitis A vaccine for people 12 months of age and older. Infants aged <12 months and persons for whom vaccine is contraindicated (persons who have had a life-threatening allergic reaction after a dose of hepatitis A vaccine, or who have a severe allergy to any component of this vaccine) should receive immunoglobulin (IG, 0.1 mL/kg) instead of hepatitis A vaccine, as soon as possible and within 2 weeks of exposure. Persons aged ≥12 months who are immunocompromised or have chronic liver disease and who have been exposed to HAV and have not previously completed the 2-dose hepatitis A vaccination series should receive both IG (0.1 mL/Kg) and hepatitis A vaccine separately in different anatomic sites (e.g., separate limbs) as soon as possible after exposure.

RECOMMENDATIONS FOR HEALTHCARE PROVIDERS AND FACILITIES
- Screen patients for risk factors (e.g., drug use, homelessness, incarceration, MSM, and chronic liver disease), and recommend and administer HAV vaccine to at-risk patients, presenting with symptoms not suggestive of acute hepatitis, regardless of the type of clinical facility.
  - Pre-vaccination serologic testing is not required to administer hepatitis A vaccine. Vaccinations should not be postponed if vaccination history cannot be obtained or records are unavailable.
  - In particular, the emergency department may be an individual’s only interaction with the healthcare system and is an important opportunity for prevention.
  - Encourage adult patients to consent to having their immunization(s) recorded in the New York State Immunization Information System (NYSIIS).
- Consider HAV infection as a diagnosis in anyone with jaundice or clinically compatible symptoms.
- Report all persons suspected or confirmed to have HAV infection to the LHD where the patient resides to ensure timely case investigation and follow-up of contacts.
  - Reporting of suspect and confirmed cases is required under the New York State Sanitary Code (10NYCRR 2.10).
  - Suspected cases occurring in a food handler must be reported immediately by telephone.
  - Contact information for LHDs is available at https://www.health.ny.gov/contact/contact_information/.
• Persons whose risk factors include injection drug use are at risk for other blood-borne pathogens, including HIV, hepatitis C virus, and hepatitis B virus. Many recent HAV cases have known co-infection with hepatitis C virus.
  o Missed opportunities for prevention of HAV infection occur when individuals diagnosed with hepatitis B and C do not receive HAV vaccine, as recommended.
  o Missed opportunities for management of co-infections occur when individuals who inject drugs are diagnosed with HAV infection and do not receive screening (and linkage to care if indicated) for hepatitis C, hepatitis B, and HIV.
  o Additional information on the care and referral of persons who use drugs can be found at https://www.health.ny.gov/diseases/aids/consumers/prevention/.
• Persons whose risk factors include injection drug use are potentially at risk for experiencing an overdose.
  o Do not miss the opportunity to provide naloxone.
  o Offer access or a referral for buprenorphine.

RECOMMENDATIONS FOR LHDS
• Identify venues serving populations at-risk for HAV infection, including correctional facilities, syringe exchange programs, medication-assisted treatment facilities, substance use disorder treatment facilities, homeless shelters, emergency departments, and sexually transmitted diseases clinics. Where ongoing relationships with these facilities and service providers do not exist, LHDs should attempt to engage with partners serving these populations to promote education and vaccination efforts.
• Employ approaches to improve vaccine delivery to hard-to-reach populations (e.g., point of dispensing sites, mobile outreach teams).
• Include hepatitis A vaccination for ACIP-recommended risk groups in routine clinical services to increase vaccination coverage.
• Engage multidisciplinary stakeholders (e.g., viral hepatitis, communicable disease and immunization and emergency preparedness staff, disease investigator specialists, health educators, and harm reduction partners) to maximize the effectiveness of prevention efforts towards ACIP-recommended risk groups, particularly people who use drugs (injection or non-injection), people experiencing homelessness, MSM, and people with chronic liver disease.
• When engaging public health partners, educate about the need to report suspect cases of HAV to the LHD, which is required by persons other than physicians under New York State Sanitary Code (10NYCRR 2.12).
• Federally funded providers of treatment for substance use disorders (e.g. New York State Office of Alcoholism and Substance Abuse facilities licensed under Mental Hygiene Law Article 32) are also regulated under Section 42, Part 2 of the Code of Federal Regulations (42 CFR Part 2).
  o 42 CFR Part 2 allows for the sharing of information related to reportable diseases to the LHD with written consent from the patient.

RECOMMENDATIONS FOR CLINICAL LABORATORIES
• When possible, query providers ordering HAV testing regarding whether the indications involve suspicion of acute illness or assessing for immunity.
  o If not already ordered, providers requesting testing for acute HAV illness should be reminded about the utility of liver function tests to aid in the diagnosis of HAV.
  o Similarly, hepatitis serology panels offer the advantage of identifying potential co-infection and reflexing to nucleic acid-based tests.
When requested by public health, facilitate the submission of specimens that have tested positive for anti-hepatitis A IgM (or where available, HAV via polymerase chain reaction (PCR)) to the Department’s Wadsworth Center. LHD staff may request submission for:
  - Specimen(s) from a case in a county that has not yet reported a hepatitis A case in an at-risk population
  - Specimen(s) from a case without reported risk factors or contact with at-risk populations (e.g., household or sexual contact, volunteering at a homeless shelter)
  - Specimen(s) from a case suspected to be associated with foodborne transmission
  - Other patient specimens that require nucleic acid testing or molecular characterization (to be discussed on a case-by-case basis)
  - Specimens should be shipped with a completed Infectious Disease Requisition Form to the Wadsworth Center’s Virology Laboratory at the David Axelrod Institute (DAI). Shipping addresses for DAI depend upon the method used and are available at https://www.wadsworth.org/contact-us.

ADDITIONAL INFORMATION AND RESOURCES

Medscape Commentary: Hepatitis A: Breaking Out All Over

National Institute of Corrections (NIC), Federal Bureau of Prisons (FBOP), and CDC Webinar: Preventing and Controlling Hepatitis A in Jails and Prisons

CDC Webinar for Clinicians: Hepatitis A Outbreaks in Multiple States: Recommendations and Guidance

Poster outlining what Emergency Departments can do to help stop the hepatitis A outbreaks

Water Quality and Health Council: Posters on how to clean up and disinfect to help prevent spread of hepatitis A virus

Poster for people who use drugs encouraging hepatitis A vaccination
  - Version 1: English Spanish
  - Version 2: English Spanish
  - Version 3: English Spanish

Poster for people at high risk of infection encouraging hepatitis A vaccination
  - English
  - Spanish

Poster for people experiencing homelessness encouraging hepatitis A vaccination
  - Version 1: English Spanish
  - Version 2: English Spanish

Poster for men who have sex with men (MSM) encouraging hepatitis A vaccination
  - Version 1
  - Version 2
  - Version 3