Hepatitis A Investigation Overview

Hepatitis A virus is a cause of acute liver disease. Transmission occurs through the fecal-oral route. Positive serologic results for hepatitis A should be followed up within 24 hours of notification and investigations should proceed immediately for all cases of hepatitis A infection. Attempts to identify and provide prophylaxis to close contacts should proceed without delay. Post exposure prophylaxis (PEP) within 2 weeks of last exposure may prevent disease. Because hepatitis A investigations must be timely, understanding the VPD Surveillance Manual chapter on hepatitis A is essential. Investigations can be complicated by setting, high-risk behaviors, or other factors and should be discussed with the NC DPH Communicable Disease (CD) Branch (919-733-3419). The CD Branch notifies the Immunization Branch if state-supplied vaccine or human immune globulin (IG) are needed. Refer to NC CD Manual for more detailed information- https://epi.publichealth.nc.gov/cd/lhds/manuals/cd/invest/HEPATITIS_A_LHD_STEPS.pdf

Basic Steps of a Hepatitis A Investigation

1. Determine immune status, clinical presentation and epidemiological factors	• Identify discrete symptom onset for nausea, vomiting, abdominal pain, fatigue, and jaundice; however, infection is often asymptomatic in children under 6 years of age. • Review ALT and bilirubin results to verify presence of elevated liver enzymes and other more likely diagnosis. Use information collected from records or speak with patient to determine potential exposure venues. • If patient does not meet surveillance case definition, stop investigation. • The average incubation period is 28 days (range: 15-50 days); inquire about activity during prior 15–50 days (travel, food history, sexual and drug use activity, recent incarceration or homelessness)
2. Determine infectious period	• The patient is infectious from 2 weeks before jaundice onset to 1 week after jaundice onset. • If the patient did not have jaundice, or jaundice onset date is unknown, the infectious period is considered to be from 1 week before to 2 weeks after onset of other symptoms. • Shedding is typically longer than 2 weeks in young children.
3. Manage the case	• Verify that the patient has been appropriately tested (HAV IgM serology only-not total antibody or NAAT) and isolated using contact precautions if hospitalized during the infectious period. Educate the patient regarding hygiene and handwashing. Consult CD Branch if patient is a food handler or works in a healthcare or daycare facility or is a parent of daycare attendee. Young children may be asymptomatic.
4. Identify all contacts of case during infectious period	• Persons requiring PEP after hepatitis A exposure include close personal contacts, childcare center staff, attendees and attendees' household members and persons exposed to a common source such as an infected food handler or contaminated food.
5. Gather information about contacts	• Collect necessary information from contacts including: ❑ Date and location of last exposure to index patient while infectious or to implicated food item ❑ Symptoms of hepatitis (nausea, vomiting, abdominal pain, fatigue, and jaundice) ❑ Vaccination status or history of past hepatitis disease, age and weight
6. Manage contacts	
➢ Symptomatic contacts	• Refer to healthcare provider with prior arrangement for appropriate testing (HAV IgM serology or NAAT).
➢ Asymptomatic non-immune contacts	• PEP given within 2 weeks of exposure is considered greater than 85% effective at preventing disease. Efficacy is greatest when administered early in the HAV incubation period; when administered later in the incubation period, PEP often only attenuates the clinical expression of HAV infection. • PEP (hepatitis A vaccine or IG or both) is recommended for ○ Close personal contacts who are in the same household or sexual partners or persons who have shared drugs with someone with hepatitis A ○ Childcare center staff, attendees, and attendees' household members — if 1 or more hepatitis A cases occur in children or employees or if cases occur in 2 or more households of attendees of childcare center ○ Persons exposed to a common source (e.g., infected food handler or contaminated food) • Hepatitis A vaccine (single antigen) at the age-appropriate dose is recommended for all persons 12 months of age and older. Consult with CD Branch. • Refer to Immunization Branch for eligibility criteria for coverage. • IG (0.1 ml/kg) is recommended for children younger than 12 months of age and persons who have a severe allergy to any component of this vaccine. • **Both** hepatitis A vaccine and IG are recommended for immunocompromised persons and persons with chronic liver disease. Consult with CD Branch. • Vaccine can be used if IG cannot be obtained; consult with CD Branch.
➢ Asymptomatic immune contacts	• Hepatitis A vaccine is highly effective (1 dose >95% seropositivity). Hepatitis A disease confers life-long immunity. Contacts with documentation of immunity may self-monitor and report if symptomatic.
➢ Resources: https://www.cdc.gov/mmwr/volumes/67/wr/mm6743a5.htm	