### 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](https://epi.publichealth.nc.gov/cd/lhds/manuals/cd/invest/HEPATITIS_A_LHD_STEPS.pdf)

### Basic Steps of a Hepatitis A Investigation

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| **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](https://www.cdc.gov/mmwr/volumes/67/wr/mm6743a5.htm)  
  - 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](https://www.cdc.gov/mmwr/volumes/67/wr/mm6743a5.htm)