

California Department of Public Health

Healthcare-Associated Hepatitis B and C (HBV/HCV)

Investigation Quicksheet Algorithm



If case had at least one healthcare encounter during the exposure period: ^{3,4}

Collect detailed information on each encounter and facility to determine if there were any percutaneous procedures, such as:

- Injections
- Infusions
- Podiatry in long-term care settings
- Assisted glucose monitoring

Save any blood samples if available

Step 1:

Confirm that the case definition is met for acute HCV or HBV. ^{1, 2}

Step 2:

Interview case patient to identify traditional, healthcare, and other risk factors during the exposure period: ^{1,2}

- HBV - 45-160 days
- HCV - 2 weeks–6 months

Provide education to patients and their contacts about disease and transmission risk.

If traditional risk factors were identified, such as:

- Multiple sexual partners or high-risk sexual partners
- Illegal drug use
- Having a household contact with HBV

Identify other possible risk factors:

- Accidents involving blood exposure
- Occupation
- Cosmetic (e.g., tattoo, manicure/pedicure)

Step 4:

Further assess healthcare encounters during incubation period, paying special attention to high risk or “red flag,” procedures or facilities. Consult with the HAI Program. ^{3,4}

If multiple healthcare settings visited, go to step 4A then 4B

If single healthcare setting visited, go directly to 4B

Hepatitis cases with no healthcare encounters are assisted by CDPH Immunization Branch (IZB) only. Submit case report form to IZB. ^{1,2}

Step 3:

Review and report to CDPH suspected healthcare-associated acute HBV or HCV¹

- Notify CDPH Healthcare-Associated Infections (HAI) Program
- Submit case report form to CDPH Immunization Branch (IZB). IZB will compare facilities against database.
- If status of sexual and/or household contacts is unclear, test contacts
- If contacts not infected, obtain blood specimen and proceed to step 4

Step 4A: When multiple healthcare settings are identified, prioritize additional investigation based on:

- Prior complaints
- Types of procedures
- Timing of procedures
- Settings and procedures where outbreaks have been documented ⁴

Step 4B: Recommended steps to investigate single and priority healthcare settings:

- Gather information on types of services provided by facility
- Review records for the index patient, including invasive procedures, dates, and staff involved
- Perform onsite visit if necessary
- Review infection control policies and procedures
- Obtain list(s) of patients seen during the same time period as index
- Identify additional cases through record review and registry match
- Consider notification of appropriate regulatory authorities

Step 5:

Respond based on assessment findings, in consultation with the HAI Program ³

- If unsafe practices identified, (e.g. syringe reuse) immediately advise the facility to correct their actions
- Depending on findings, additional steps might include: patient notification, targeted lookback, genotyping/viral sequencing of cases and possible sources, reporting to authorities

References

¹ Refer to the Immunization Branch's CDPH Acute Hepatitis B and C Public Health Investigation '[Quicksheet](#)' for instructions on non-healthcare and healthcare-associated hepatitis investigation instructions: (<https://www.cdph.ca.gov/HealthInfo/discond/Documents/AcuteHepatitisBCquicksheet.pdf>)

² Report acute hepatitis B and C cases on the CDPH [case report form](#): (<https://www.cdph.ca.gov/pubsforms/forms/CtrlForms/cdph8703.pdf>)

³ Refer to the [CDC Guide](#) for Investigating Healthcare-Associated Hepatitis for the full list of steps to take during an investigation: (<http://www.cdc.gov/hepatitis/outbreaks/healthcareinvestigationguide.htm>)

⁴ "Red Flags" for Suspecting Healthcare Acquisition of HBV or HCV

- Sentinel events, such as seroconversion in a dialysis patient or frequent blood donor
- Patient age ≥ 50 with acute HBV/HCV and no traditional risk factors
- Setting types where prior hepatitis outbreaks have occurred, for example:
 - Outpatient settings where frequent injections or infusions are administered (e.g. ambulatory surgery centers, oncology clinics, pain management clinics, long-term care settings, or outpatient dialysis centers)
 - Settings that provide assistance with multiple patients for blood glucose monitoring (e.g., long-term care facilities or assisted-living facilities)
- Facility or clinic associated with a prior case of acute HBV/HCV
- Previous report or complaint submitted about a healthcare provider or clinic regarding unsafe injection practice

Additional Resources

CDC infection control [resources](#) for outpatient settings include:

- Infection prevention guide and checklist for outpatient settings
 - outpatient policy options worksheet
 - basic infection control plan for outpatient oncology settings
- (<http://www.cdc.gov/HAI/settings/outpatient/outpatient-settings.html>)

CDC viral hepatitis healthcare-associated outbreaks [resources](#) include:

- Healthcare investigation checklist
 - healthcare investigation guide
 - healthcare investigation letter
 - the healthcare notification testing toolkit
- (<http://www.cdc.gov/hepatitis/outbreaks/index.htm>)

CDC [injection safety](#) resources can be found at: (<http://www.cdc.gov/injectionsafety/index.html>)

CDC [blood glucose monitoring](#) and insulin safety tips can be found at: (<http://www.cdc.gov/injectionsafety/blood-glucose-monitoring.html>)