**Sample data gathering tool** *for patients with recent/new hepatitis B or C virus infection without known risk factors for viral hepatitis to help guide health departments in identifying potential healthcare exposures that may warrant further public health investigation*

Instructions: Gather available clinical and diagnostic data in Part 1 on pages 1-3. Use these data to calculate possible exposure period using guidance in Part 2 on pages 4-6. This time window may be used during the patient interview in Part 3 pages 7-16.

**Part 1: Clinical and Diagnostic Data**

***Note: Clinical and Diagnostic Information may be transferred from the state department of health acute hepatitis case report form, and/or you may wish to review symptoms and dates with case patient during interview.***

**DATE** laboratory report was received at Local Health Department \_\_ \_\_ / \_\_ \_\_ / \_\_ \_\_ \_\_ \_\_

*(record results in next section)*

**REASON FOR TESTING**: **(Check all that apply)**

\_\_ Symptoms of acute hepatitis \_\_ Evaluate elevated liver enzymes \_\_ Screening of asymptomatic patient \_\_ Blood / organ donor screening \_\_ Follow-up testing for previous markers of viral hepatitis

\_\_ Unknown

\_\_ Other: specify: \_\_\_\_\_\_\_\_\_\_\_\_

**DIAGNOSIS:** (Check all that apply)

\_\_ Hepatitis B: \_\_\_ acute \_\_\_chronic \_\_\_unknown

\_\_ Hepatitis C: \_\_\_ acute \_\_\_chronic \_\_\_unknown

**CLINICAL DATA:**

Diagnosis date: **\_\_ \_\_ / \_\_ \_\_ / \_\_ \_\_ \_\_ \_\_**

a. Was patient symptomatic? \_\_\_ Yes \_\_\_ No \_\_\_ Unk If yes, onset date: **\_\_ \_\_ / \_\_ \_\_ / \_\_ \_\_ \_\_ \_\_**

b. Was patient jaundiced? \_\_\_ Yes \_\_\_ No \_\_\_ Unk If yes, onset date: **\_\_ \_\_ / \_\_ \_\_ / \_\_ \_\_ \_\_ \_\_**

c. Did the patient experience:

Loss of appetite \_\_\_ Yes \_\_\_ No \_\_\_ Unk

Nausea \_\_\_ Yes \_\_\_ No \_\_\_ Unk

Vomiting \_\_\_ Yes \_\_\_ No \_\_\_ Unk

Abdominal Pain \_\_\_ Yes \_\_\_ No \_\_\_ Unk

Fever \_\_\_ Yes \_\_\_ No \_\_\_ Unk

Dark Urine \_\_\_ Yes \_\_\_ No \_\_\_ Unk

Other, specify\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

d. Was the patient hospitalized for hepatitis? \_\_\_Yes \_\_\_No \_\_\_Unk

If yes, admission date: \_\_ \_\_ / \_\_ \_\_ / \_\_ \_\_ \_\_ \_\_ discharge date\*: \_\_ \_\_ / \_\_ \_\_ / \_\_ \_\_ \_\_ \_\_

Did patient die during admission? \_\_yes \_\_\_no \_\_\_\_unk

If, yes, date of death: \_\_ \_\_ / \_\_ \_\_ / \_\_ \_\_ \_\_ \_\_

**Diagnostic tests. Check all that apply.**  If tested on more than one date record all test results and dates through (including) date of first positive test.

*Note: Creating a spreadsheet to depict evolving serology over time may be particularly useful for hepatitis B (sample attached at end of document).*

\_\_\_ Hepatitis B surface antigen [HBsAg] \_\_Pos \_\_Neg \_\_Unk Date(s): \_\_\_/\_\_\_\_/\_\_\_

\_\_Pos \_\_Neg \_\_Unk Date(s): \_\_\_/\_\_\_\_/\_\_\_

\_\_\_ Total antibody to hepatitis B core antigen [total anti-HBc] \_\_Pos \_\_Neg \_\_Unk Date(s): \_\_\_/\_\_\_\_/\_\_\_

\_\_Pos \_\_Neg \_\_Unk Date(s): \_\_\_/\_\_\_\_/\_\_\_

\_\_\_ IgM antibody to hepatitis B core antigen [IgM anti-HBc] \_\_Pos \_\_Neg \_\_Unk Date(s): \_\_\_/\_\_\_\_/\_\_\_

\_\_Pos \_\_Neg \_\_Unk Date(s): \_\_\_/\_\_\_\_/\_\_\_

\_\_\_ HBV DNA \_\_Pos \_\_Neg \_\_Unk Date(s): \_\_\_/\_\_\_\_/\_\_\_

\_\_Pos \_\_Neg \_\_Unk Date(s): \_\_\_/\_\_\_\_/\_\_\_

If positive, (specify viral load(s) if available \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_ HBV Genotype result, if tested \_\_\_\_\_\_ Date: \_\_\_/\_\_\_\_/\_\_\_\_

\_\_\_ Antibody to hepatitis C virus [anti-HCV] \_\_Pos \_\_Neg \_\_Unk Date(s): \_\_\_/\_\_\_\_/\_\_\_

\_\_Pos \_\_Neg \_\_Unk Date(s): \_\_\_/\_\_\_\_/\_\_\_

\_\_\_ HCV RNA \_\_Pos \_\_Neg \_\_Unk Date(s): \_\_\_/\_\_\_\_/\_\_\_

\_\_Pos \_\_Neg \_\_Unk Date(s): \_\_\_/\_\_\_\_/\_\_\_

If positive, specify viral load(s) if available \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_ HCV Genotype result, if tested \_\_\_\_\_\_ Date: \_\_\_/\_\_\_\_/\_\_\_\_

\_\_\_ Antibody to hepatitis D virus [anti-HDV] \_\_Pos \_\_Neg \_\_Unk Date(s): \_\_\_/\_\_\_\_/\_\_\_

**LIVER ENZYME LEVELS AT TIME OF DIAGNOSIS**

ALT [SGPT] Result \_\_\_\_\_\_ Upper limit normal\_\_\_\_\_\_\_ Date \_\_ \_\_ / \_\_ \_\_ / \_\_ \_\_ \_\_ \_\_

AST [SGOT] Result \_\_\_\_\_\_ Upper limit normal\_\_\_\_\_\_\_ Date \_\_ \_\_ / \_\_ \_\_ / \_\_ \_\_ \_\_ \_\_

**if known PRIOR LIVER ENZYME LEVELS, with baseline and first elevated level(s)**

ALT [SGPT] Result \_\_\_\_\_\_ Upper limit normal\_\_\_\_\_\_\_ Date \_\_ \_\_ / \_\_ \_\_ / \_\_ \_\_ \_\_ \_\_

AST [SGOT] Result \_\_\_\_\_\_ Upper limit normal\_\_\_\_\_\_\_ Date \_\_ \_\_ / \_\_ \_\_ / \_\_ \_\_ \_\_ \_\_

ALT [SGPT] Result \_\_\_\_\_\_ Upper limit normal\_\_\_\_\_\_\_ Date \_\_ \_\_ / \_\_ \_\_ / \_\_ \_\_ \_\_ \_\_

AST [SGOT] Result \_\_\_\_\_\_ Upper limit normal\_\_\_\_\_\_\_ Date \_\_ \_\_ / \_\_ \_\_ / \_\_ \_\_ \_\_ \_\_

**Part 2. Determining likely time period of HBV/HCV exposure (exposure window) based on laboratory and clinical findings**

*Note: This general guidance may not encompass all possible scenarios. CDC Division of Viral Hepatitis staff are always available for consultation at* [viralhepatitisoutbreak@cdc.gov](mailto:viralhepatitisoutbreak@cdc.gov) *or CDC-INFO 1-800-232-4636 (ask for Division of Viral hepatitis subject matter expert) See:* [***https://www.cdc.gov/hepatitis/contactus.htm***](https://www.cdc.gov/hepatitis/contactus.htm)

**1. For patients with a history of negative nucleic acid tests (NAT) or serology (for HBV, HBsAg and/or total anti-HBc; for HCV, anti-HCV) prior to the recent positive test:**

*Note: On average about 3 weeks (possibly up to 12 weeks) may elapse between initial infection and HBsAg/HBV DNA detectability, up to 6 months before anti-HCV seroconversion, and on average about one week (up to 2 weeks) before HCV RNA detectability.*

*See:* [*https://www.cdc.gov/hepatitis/outbreaks/toolkit.htm*](https://www.cdc.gov/hepatitis/outbreaks/toolkit.htm)

a.fill in date(s) and type(s) of most recent negative test(s). Include all serologic and NAT results.

\_\_\_\_\_\_\_\_\_\_ Date(s) \_\_/\_\_/\_\_\_

\_\_\_\_\_\_\_\_\_\_ Date(s) \_\_/\_\_/\_\_\_

\_\_\_\_\_\_\_\_\_\_ Date(s) \_\_/\_\_/\_\_\_

\_\_\_\_\_\_\_\_\_\_ Date(s) \_\_/\_\_/\_\_\_

b.fill in date(s) and type(s) of first positive test(s). Include all serologic and NAT results.

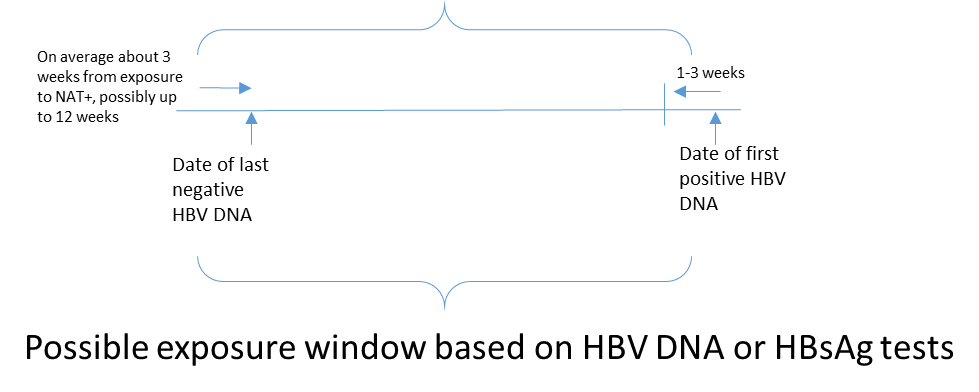
\_\_\_\_\_\_\_\_\_\_ Date(s) \_\_/\_\_/\_\_\_\_

\_\_\_\_\_\_\_\_\_\_ Date(s) \_\_/\_\_/\_\_\_\_

\_\_\_\_\_\_\_\_\_\_ Date(s) \_\_/\_\_/\_\_\_

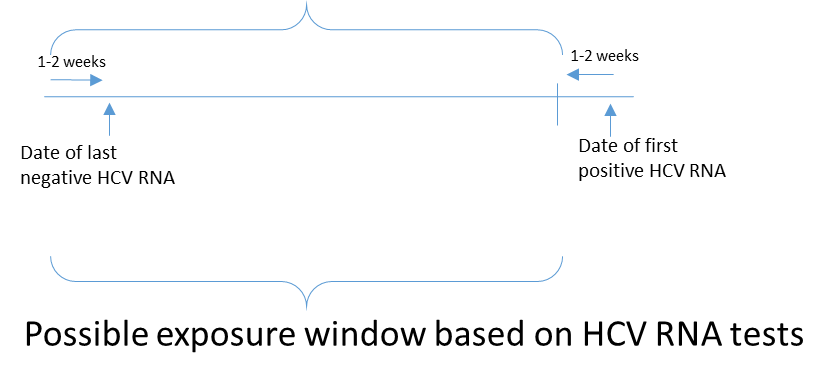
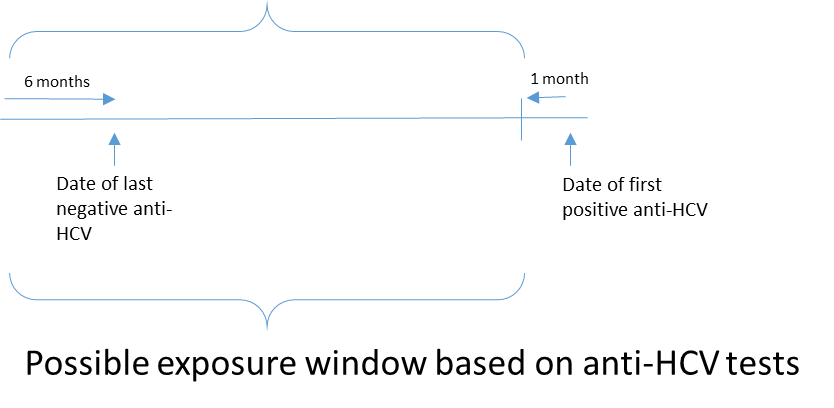
\_\_\_\_\_\_\_\_\_\_ Date(s) \_\_/\_\_/\_\_\_

c. The **possible** **HBV exposure window** may be estimated using NAT for HBV DNA and/or HBsAg tests. On average about three weeks (typical range 1-9 weeks, possibly up to 12 weeks) may elapse between initial infection and HBsAg/HBV DNA detectability.



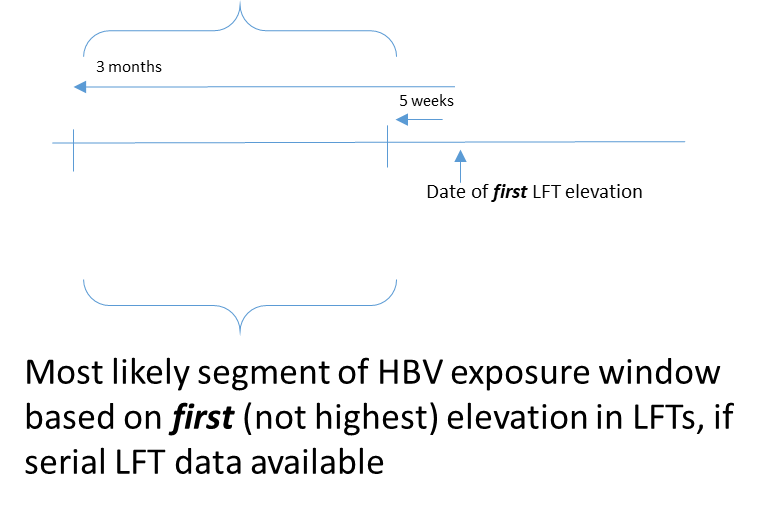
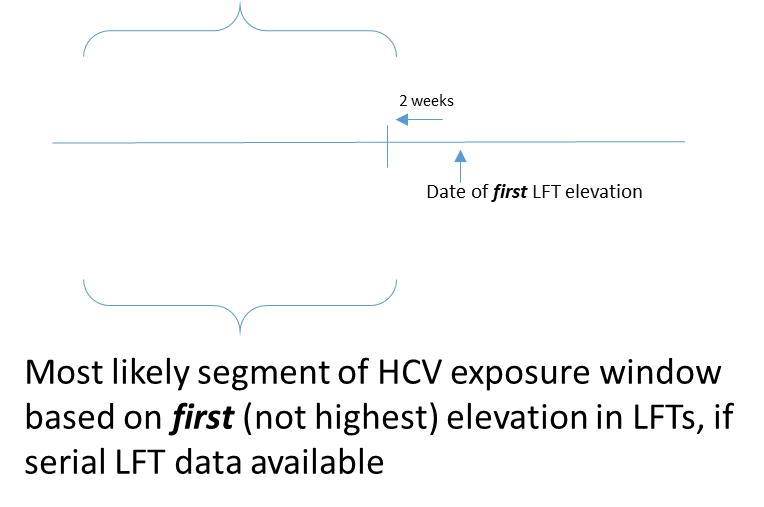
Likely exposure window: \_\_\_ /\_\_\_/\_\_\_ to \_\_\_ /\_\_\_/\_\_\_

d. The **possible HCV exposure window** may be estimated using NAT for HCV RNA and/or anti-HCV tests. For NAT on average the exposure may have been as early as one-two weeks prior to the last negative HCV NAT result, through one-two weeks before the first positive HCV RNA result. Using anti-HCV results the exposure may have been as early as 6 months prior to the last negative anti-HCV result through eight to 11 weeks prior to the first positive anti-HCV result.

Likely exposure window: \_\_\_ /\_\_\_/\_\_\_ to \_\_\_ /\_\_\_/\_\_\_

e. Elevations in liver function tests when serial testing available, if noted and not clearly ascribed to other clinical comorbidites, may help to define the most likely time of exposure within the window defined by other lab tests. For HBV average time from exposure to first elevation is two months, range 40-90 days. For HCV the average time to first elevation can be as early as 2 weeks, degree and duration of ALT may be variable.

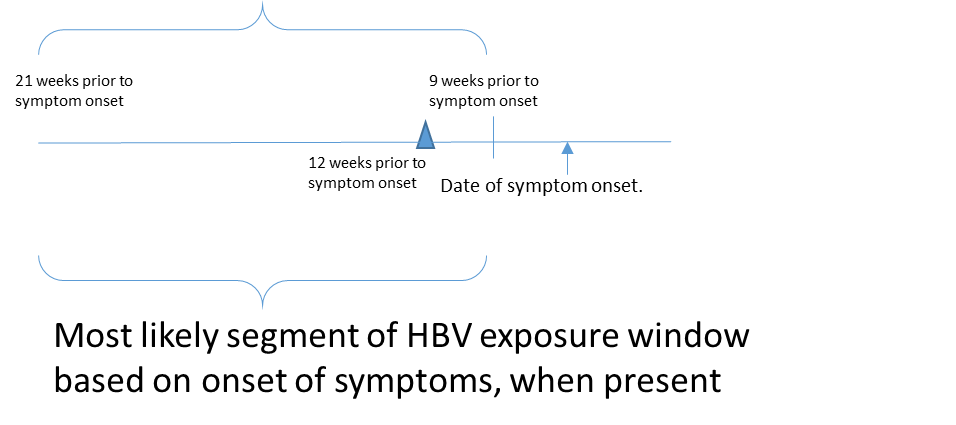
 

Likely exposure window: \_\_\_ /\_\_\_/\_\_\_ to \_\_\_ /\_\_\_/\_\_\_

**2. For patients with discrete onset of signs/symptoms such as jaundice**

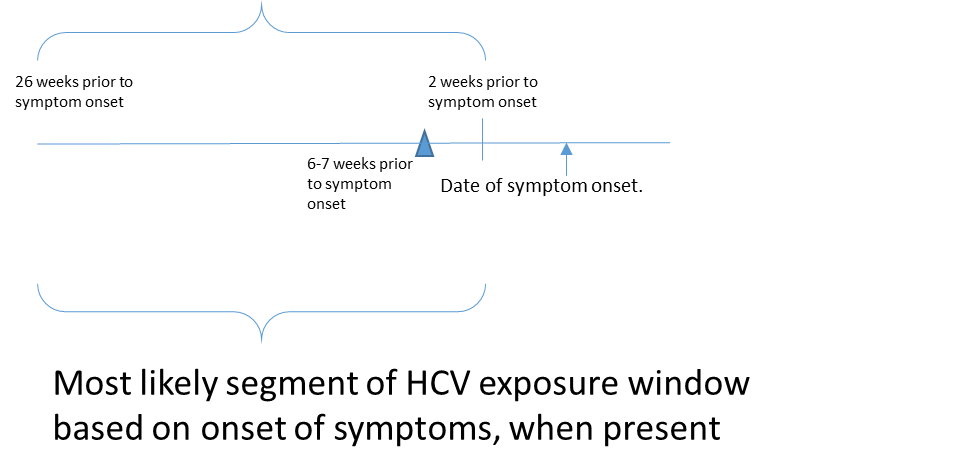
Fill in date of onset and symptoms: \_\_\_\_\_\_\_\_\_\_\_ Date \_\_/\_\_/\_\_\_\_

**For HBV** the average onset of signs/symptoms (when present) is at 12 weeks after exposure, with a range of 9-21 weeks.



Likely exposure window: \_\_\_ /\_\_\_/\_\_\_ to \_\_\_ /\_\_\_/\_\_\_

**For HCV** the average onset of symptoms (when present) is 6-7 weeks after exposure with a range of 2-26 weeks.



Likely exposure window: \_\_\_ /\_\_\_/\_\_\_ to \_\_\_ /\_\_\_/\_\_\_

**3. For patients who have only a single positive test and no (or nonspecific) symptoms**,

a. While an exact exposure window cannot be determined, recent potential healthcare exposures over a period of some months may be taken into consideration to determine possible times when exposure may have occurred that are most feasible for investigation.

**Worksheet summarizing guidance for determining possible exposure window for persons with new HBV diagnosis**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| **Options to Estimate First Date of Incubation Period** | | | | | | **1) Fill in the Date of Test:** | | **2) Subtract:** | | | **3) Equals Estimated First Date of Incubation Period** | | | **Options to Estimate Last Date of Incubation Period** | | **4) Fill in the Date of Test:** | **5) Subtract:** | **6) Equals Estimated Last Date of Incubation Period** |  | |  | |  | |  | |
| Last negative HBV DNA | | | | | |  | | 12 weeks | | |  | | | **First positive HBV DNA** | |  | 1-3 weeks |  |  | |  | |  | |  | |
| Last negative HBsAg | | | | | |  | | 12 weeks | | |  | | | **First positive HBsAg** | |  | 1-3 weeks |  |  | |  | |  | |  | |
| First elevation in ALT\* | | | | | |  | | 3 months | | |  | | | **First elevation in ALT\*** | |  | 6 weeks |  |  | |  | |  | |  | |
| Onset of symptoms | | | | | |  | | 21 weeks | | |  | | | **Onset of symptoms** | |  | 9 weeks |  |  | |  | |  | |  | |
| Single positive HBV DNA or HBsAg and no symptoms or prior test results | | | | | |  | | 1 year^ | | |  | | |  | |  |  |  |  | |  | |  | |  | |
| **Summary Date(s):** | | | | | |  | | | | |  | | | **Summary Date(s):** | |  | |  |  |  | |  | |  | |
| \*This assumes that serial ALT levels are collected in an ongoing fashion. | | | | | | | | | | | | | | | |  |  |  |  |  | |  | |  | |
| ^ This recommendation should be considered in the context of all available evidence. If no other data are available, this is a reasonable option. | | | | | | | | | | | | | | | | | | | | | | |
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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Options to estimate first date of exposure window** | | | **1) Fill in the date of test:** | | **2) Subtract:** | | **3) Equals estimated first date of exposure window** | **Options to estimate last date of exposure window** | | **4) Fill in the date of test:** | **5) Subtract:** | **6) Equals estimated last date of exposure window** |
| **Last negative HCV RNA** | | |  | | 1-2 weeks | |  | **First positive HCV RNA** | |  | 1-2 weeks |  |
| **Last negative anti-HCV** | | |  | | 6 months | |  | **First positive anti-HCV** | |  | 8 weeks |  |
|  | | |  | |  | |  | **First elevation in ALT\*** | |  | 2 weeks |  |
| **Onset of symptoms** | | |  | | 26 weeks | |  | **Onset of symptoms** | |  | 2 weeks |  |
| **Single positive HCV RNA or anti-HCV and no symptoms or prior test results** | | |  | | 1 year^ | |  |  | |  |  |  |
| **Summary Date(s):** | | |  | |  | | | **Summary Date(s):** | |  |  | |
| \*This assumes that serial ALT levels are collected in an ongoing fashion. | | | | | | | | |  |  |  |  |
| ^ This recommendation should be considered in the context of all available evidence. If no other data are available, this is a reasonable option. | | | | | | | | | | |  |  |
|  | | |  | |  | | |  |  |  |  |  |
|  |  |  | |  | |

**References**

1. CDC. Healthcare notification and testing toolkit. Bloodborne Pathogens Testing. <https://www.cdc.gov/hepatitis/outbreaks/toolkit.htm> Accessed November 26, 2018.

2. CDC. Recommendations for Identification and Public Health Management of Persons with Chronic Hepatitis B Virus Infection. Morb Mortal Wkly Rpts 2008, 57 (RR08). [**https://www.cdc.gov/mmwr/preview/mmwrhtml/rr5708a1.htm**](https://www.cdc.gov/mmwr/preview/mmwrhtml/rr5708a1.htm)

3. CDC. Recommendations for Prevention and Control of Hepatitis C Virus (HCV) Infection and HCV-Related Chronic Disease. Morb Mortal Wkly Rpts 1998, 47 (RR19). [**http://www.cdc.gov/mmwr/PDF/RR/RR4719.pdf**](http://www.cdc.gov/mmwr/PDF/RR/RR4719.pdf)

4. CDC. Viral Hepatitis Serology training:[**https://www.cdc.gov/hepatitis/resources/healthprofessionaltools.htm**](https://www.cdc.gov/hepatitis/resources/healthprofessionaltools.htm)

Accessed 11/26/2018.

5. Association of Public Health Laboratories. Interpretation of Hepatitis C Virus Test Results: Guidance for Laboratories: <https://www.aphl.org/aboutAPHL/publications/Documents/ID-2019Jan-HCV-Test-Result-Interpretation-Guide.pdf> Accessed 1/28/2019.

Note that persons with past resolved HBV (HBsAg negative, total anti-HBc positive) or occult HBV infection (intermittent HBsAg positive with low-level or undetectable HBV DNA measurements; total anti-HBc positive) may reactivate to active HBV replication during periods of substantial immune compromise [**https://www.cdc.gov/hepatitis/hbv/hbvfaq.htm**](https://www.cdc.gov/hepatitis/hbv/hbvfaq.htm)

**Part 3. Sample PATIENT INTERVIEW**

***Note: questions for internal health department use only***

Date Interview Completed (mm/dd/yy): \_\_\_\_\_\_/\_\_\_\_\_\_/\_\_\_\_\_\_ Interviewer \_\_\_\_\_\_\_\_\_

**DEMOGRAPHIC INFORMATION**

**PRIMARY RESIDENCE**: State: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ County: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**RACE** (check all that apply):

\_\_American Indian/Alaska Native

\_\_Black or African American

\_\_White

\_\_ Asian

\_\_ Native Hawaiian or Other Pacific Islander

\_\_ Other Race, specify: \_\_\_\_\_\_\_\_\_

**ETHNICITY: Hispanic, Latino/a or Spanish origin?** \_\_\_Yes \_\_\_No \_\_\_Unk

**SEX:** \_\_\_Male \_\_\_Female \_\_\_Unk

**PLACE OF BIRTH:** \_\_\_USA \_\_\_Other, specify:

**DOB:** \_\_ \_\_ / \_\_ \_\_/ \_\_ \_\_ \_\_ \_\_ **AGE:** \_\_\_ \_\_\_ (years)

**MEDICAL INSURANCE:**

\_\_\_Private Insurance

\_\_\_HMO \_\_\_Military

\_\_\_Medicaid \_\_\_Medicare

\_\_\_Uninsured

\_\_\_Refused

\_\_\_Unknown

**OCCUPATION/SETTING**:

\_\_\_Food Service

\_\_\_Day Care

\_\_\_Health Care

\_\_\_Student/School

\_\_\_Corrections Works

\_\_\_Other Occupation, specify:

\_\_\_\_Unknown

**PATIENT HISTORY**

*Note: encourage participants to have a calendar in front of them during the interview, and to gather other relevant paperwork, such as an appointment calendar, insurance statements, canceled checks or credit card statements. Some physicians also send email and text reminders for appointments and they may supply discharge instructions or after care instructions with a signature and date. Pill bottles will have date of prescription and might provide memory prompts if a prescription was written at the time of a procedure. Dates of holidays (July 4, Memorial Day, Thanksgiving …) can also serve as memory prompts. Some physicians also have an electronic patient portal that may provide information on dates of procedures. Informal date estimates may be checked against medical records.*

1. Before your recent illness were you ever diagnosed with hepatitis? \_\_\_Yes \_\_\_No \_\_\_Unk

a. If yes, do you recall approximately when this occurred or what type of hepatitis it was (prompt: A, B, C, serum, infectious, autoimmune): type ­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ year \_\_ \_\_ \_\_ \_\_

If yes for hepatitis B or C: Did you develop chronic infection? \_\_\_Yes \_\_\_No \_\_\_Unk

b. If no, did you ever have an illness marked by jaundice (yellowing of the skin or eyes)?

\_\_\_Yes \_\_\_No \_\_\_Unk

2. Have you tried to donate blood any time since 1970? \_\_\_Yes \_\_\_No \_\_\_Unk If yes, (specify most recent year \_\_ \_\_ \_\_ \_\_)

a. If yes, were you ever told that your blood could not be accepted or used? \_\_\_Yes \_\_\_No \_\_\_Unk If yes, please specify reason: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. Did you ever receive hepatitis B vaccine? \_\_\_Yes \_\_\_No \_\_\_Unk

If yes, how many shots? \_\_\_1 \_\_\_2 \_\_\_3+

When was the last shot received? \_\_\_/\_\_\_\_/\_\_\_\_\_\_\_

4. a. Do you have difficulty dressing, bathing, or getting around inside the home?

\_\_\_Yes \_\_\_No \_\_\_Unk

b. Do you have difficulty going outside the home alone to shop or visit a doctor’s office?

\_\_\_Yes \_\_\_No \_\_\_Unk

***Read to patient:* “For the remaining questions, the time period we are interested in is the likely exposure window, that is, the period between *(fill in estimated dates)* \_\_\_/\_\_\_\_/\_\_\_\_ and \_\_\_/\_\_\_\_/\_\_\_\_.”**

5. During theexposure window were you a contact of a person who you were aware had acute or chronic hepatitis B or hepatitis C virus infection?

\_\_\_Yes \_\_\_No \_\_\_Unk

If yes, specify type of contact:

\_\_\_ Hepatitis B \_\_\_ Hepatitis C \_\_\_ hepatitis of unknown type

Household [Non-sexual]: \_\_\_Yes \_\_\_No \_\_\_Unk

Sexual: \_\_\_Yes \_\_\_No \_\_\_Unk

Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

6. During the exposure window did you:

a. Receive a tattoo or body piercing? \_\_\_Yes \_\_\_No \_\_\_Unk

If yes, specify location (for example, commercial tattoo parlor, prison, from a friend, at a tattoo or piercing party): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b. Travel outside the United States or Canada? \_\_\_Yes \_\_\_No \_\_\_Unk

If Yes, specify locations (Country) and approximate dates:

1)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ from \_\_\_/\_\_\_\_/\_\_\_\_ to \_\_\_/\_\_\_\_/\_\_\_\_

2)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ from \_\_\_/\_\_\_\_/\_\_\_\_ to \_\_\_/\_\_\_\_/\_\_\_\_

3)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ from \_\_\_/\_\_\_\_/\_\_\_\_ to \_\_\_/\_\_\_\_/\_\_\_\_

c. Work in a medical field involving contact with human blood or body fluids?

\_\_\_Yes \_\_\_No \_\_\_Unk

d. Work in a dental field involving contact with human blood or body fluids?

\_\_\_Yes \_\_\_No \_\_\_Unk

e. Work in any other setting where you possibly could have had contact with human blood or body fluids? \_\_\_Yes \_\_\_No \_\_\_Unk

If yes, specify setting: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

If yes, specify body fluid: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

f. Have an accidental stick or puncture with a needle or other object possibly contaminated with human blood or body fluids? \_\_\_Yes \_\_\_No \_\_\_Unk

If yes, specify the date: \_\_/\_\_\_/\_\_\_, setting: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

If yes, specify body fluid: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

g. Reside (live in) a long term care facility? \_\_\_Yes \_\_\_No \_\_\_Unk

If yes, for how long

h. Receive medical care in your home from visiting nurses or certified health professional?

\_\_\_Yes \_\_\_No \_\_\_Unk If yes, specify:

1. Type of care provided

Frequency: ­­­­­­­­­­­­­­\_\_\_\_ times/month or ­­­­­­­­­­­­­­\_\_\_\_ times/week

2. Type of care provided Frequency: ­­­­­­­­­­­­­­\_\_\_\_times/month or ­­­­­­­­­­­­­­\_\_\_\_ times/week

3. Type of care provided Frequency: ­­­­­­­­­­­­­­\_\_\_\_ times/month or ­­­­­­­­­­­­­­\_\_\_\_ times/week 4. Type of care provided Frequency: ­­­­­­­­­­­­­­\_\_\_\_ times/month or ­­­­­­­­­­­­­­\_\_\_\_ times/week

i. Receive medical care in your home from relatives or other persons? \_\_\_Yes \_\_\_No \_\_\_Unk

If yes, specify and *include dates on healthcare exposure table, final page*:

1. Type of care provided Frequency: ­­­­­­­­­­­­­­\_\_\_\_ times/month or ­­­­­­­­­­­­­­\_\_\_\_ times/week 2. Type of care provided Frequency: ­­­­­­­­­­­­­­\_\_\_\_times/month or ­­­­­­­­­­­­­­\_\_\_\_ times/week

3. Type of care provided Frequency: ­­­­­­­­­­­­­­\_\_\_\_ times/month or ­­­­­­­­­­­­­­\_\_\_\_ times/week 4. Type of care provided Frequency: ­­­­­­­­­­­­­­\_\_\_\_ times/month or ­­­­­­­­­­­­­­\_\_\_\_ times/week

j. Go to a doctor, nurse, or other healthcare provider for any reason? \_\_\_Yes \_\_\_No \_\_\_Unk

7. In the next section, we will review some different types of health care encounters you may have had during the exposure window. *(Note: if subject denies any healthcare whatsoever, explain that we still need to take a minute to review the following list because it includes some things that people sometimes don’t think of as healthcare. Use explanation of procedure in parenthesis if participant is not familiar with procedure.)*

**(Check all that apply)**

**PLEASE INDICATE WHETHER THE TREATMENT WAS RECEIVED AS A HOSPITAL INPATIENT (H), AT AN OUTPATIENT CLINIC (O), OR BOTH**

1. Dental work or visit a dentist
2. Podiatry care (i.e., did you see a foot doctor)?
3. Skin care procedure (i.e., from a dermatologist)?
4. Cosmetic procedure (i.e. from a dermatologist or plastic surgeon)?
5. Blood sugar [glucose] levels:

If yes, did you share any testing equipment with another person? \_\_\_Yes \_\_\_No \_\_\_Unk

If yes, specify: fingerstick device / lancet / meter / other \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Fingerstick for blood donor assessment or any other reason?
2. Blood tests (i.e., have blood drawn)
3. Dialysis *(Blood is pumped from the body into a filter (dialyzer) where waste products and extra fluid are removed. The filtered blood is then pumped back into the body)*
4. Apheresis *(Blood is pumped from the body and a component of blood is removed from the blood. The blood is then pumped back into the body)*
5. Flu shot or other vaccines
6. Shots for arthritis or joint problems
7. Steroid injections
8. Injections for pain relief or other treatment at a pain clinic
9. Allergy injections
10. Vitamin injections (i.e. B12)
11. Care from a traditional healer or herbalist
12. Injections of any kind not already mentioned
13. Acupuncture
14. Chelation therapy *(A chemical process in which a synthetic solution—EDTA is injected into the bloodstream to remove heavy metals and/or minerals from the body (used to treat lead poisoning)*
15. Chemotherapy for cancer treatment
16. Blood products including transfusion or platelets
17. Intravenous (IV) fluids or medicines not already mentioned
18. Radiation therapy
19. X-rays
20. Imaging scans (including CAT-scans, PET-scans, MRI)

*(****CAT scan*** *or Computer axial tomography**uses X-rays and computers to produce an image of a cross-section of the body. Dye may be injected into a vein or taken orally so the radiologist can better see the body structures better)*

*(****PET scan*** *or Positron emission tomography is a test that combines computed tomography (CT) and nuclear scanning. During a PET scan, a radioactive substance called a tracer is combined with a chemical (such as glucose); this mixture is generally injected into a vein (usually in the arm) but on occasion may be inhaled.)*

*(****MRI*** *or Magnetic resonance imaging is a test that uses a magnetic field and pulses of radio wave energy to make pictures of organs and structures inside the body)*

1. Any other imaging exams, specify:
2. Injected Imaging Dye (From one of the above imaging tests or another imaging test)

Specify:

1. Vaginal ultrasound (*ASK FEMALES ONLY*. *A technician inserts a sonogram probe into the vagina and aims sound waves into the pelvic cavity to take pictures of reproductive organs)*
2. Hospital emergency department visit
3. Hospitalization requiring overnight stay
4. Anesthesia *(Medicine to “put you to sleep” or make you numb to pain during a medical procedure)*
5. Surgery or any operation as inpatient or outpatient
6. Biopsies as inpatient or outpatient *(A small sample of tissue is removed from an area of the body to test for cancers or other health conditions)*
7. Wound care
8. Colonoscopy *(Colonoscopy is a test to look at the interior lining of the large intestine via a scope)*
9. Sigmoidoscopy *(Similar to a colonoscopy but only shows the rectum and the lower third of the colon)*
10. Other endoscopy *(Endoscopy is a nonsurgical procedure used to examine a person's digestive tract)*
11. Laparoscopic procedures *(Laparoscopy is a surgical procedure that uses a thin, lighted tube called a laparoscope inserted through an incision in the abdominal wall to examine the abdominal organs or female pelvic organs)*
12. Arthroscopic procedures *(Arthroscopy is a surgical procedure to look at the inside of a joint in the body through a thin viewing instrument called an arthroscope)*
13. Any other procedure referred to as “scoping” such as cystoscopy and ureteroscopy (A cystoscopy or ureteroscopy is a procedure where your physician inserts a flexible scope through your urethra to see inside your bladder and/or urethra)

Specify:

1. Cardiac catheterization (*A thin flexible tube called a catheter is threaded through a blood vessel in your arm or groin and into your heart. Through the catheter, your doctor can measure pressures, take blood samples, and inject contrast material into the coronary arteries to trace the movement of blood through the arteries)*
2. Cataract or other eye surgery
3. Laser procedures, specify:
4. Medical procedure or operation not already mentioned

*Note: If the respondent answered yes to any of the above, complete the Healthcare Event Table at the end.*

**SENSITIVE QUESTIONS:**

I will now ask you several questions that may be of a sensitive nature, but which are important because these activities can explain why some people become infected with hepatitis B or C. Remember that all the information you share is confidential and you can refuse to answer any of the questions. However it would be helpful to have a complete response.

8. During exposure window, did you have any sexual partners? \_\_\_Yes \_\_\_No \_\_\_Unk

If Yes, a. How many female sex partners did you have? \_\_\_\_\_\_\_\_ (number of partners)

1. How many male sex partners did you have? \_\_\_\_\_\_\_\_ (number of partners)

9. During exposure window, did you

a. Inject with a needle any drug that was not prescribed by a doctor? \_\_\_Yes \_\_\_No \_\_\_Unk

b. Use street drugs but not inject with a needle (for example snorted)? \_\_\_Yes \_\_\_No \_\_\_Unk

c. Spend more than 24 hours in jail or prison? \_\_\_Yes \_\_\_No \_\_\_Unk

10. Have you **ever** in your life injected drugs with a needle not prescribed by a doctor?

\_\_\_Yes \_\_\_No \_\_\_Unk

**MISCELLANEOUS:**

11. In the exposure window, were you involved in any situations that exposed you to someone else’s blood that was not otherwise covered by this survey? \_\_\_Yes \_\_\_No \_\_\_Unk

If yes, specify: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

12. How do you think you got hepatitis?

**Thank you. I appreciate the information you provided.**

**Do you have any other questions about the interview, or hepatitis?**

**SAMPLE HEALTHCARE EXPOSURES TABLE**

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**Example spreadsheet for tracking evolving HBV serology and clinical events over time**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Date** | **12/21/2017** | **1/4/2018** | **1/9/2018** | **2/23/2018** | **3/12/2018** | **3/14/2018** | **4/3/2018** | **4/9/2018** | **4/13/2018** | **5/6/2018** | **5/23/2018** | **5/30/2018** |
| **Location** | hospital in state x | outpatient dialysis facility in state x, # patients | " | outpatient dialysis facility in state y, # patients | " | " | " | " | " | " | " | " |
| **Event** | **First-ever dialysis** |  | **HBV vaccine dose** |  |  | **started dialysis in isolation for first time** |  |  |  |  |  |  |
| **Labs** |  | HBsAg negative, anti-HBs negative, total anti-HBc negative |  | routine monthly HBsAg screen = positive, total anti-HBc negative, | HBsAg positive | HBV DNA = 7676 copies or IU/mL | HBeAg positive, HBsAg positive, HBV DNA positive, total anti-HBc negative | IgM anti-HBc negative | total anti-HBc negative | HBV DNA> 100 e7 , total anti-HBc negative, anti-HBs negative | HBsAg positive | total anti-HBc positive, HBsAg positive, anti-HBs negative |
| Notes (index case age, sex, race, state of residence, other medical conditions) |  |  |  | exposure would have been 1 to 12 weeks prior to this date |  | facility screens new pts for HBsAg and anti-HBs; every susceptible screened 2nd Tues each month.  Note: no additional cases identified in 6 months of testing. |  | appears to have resolved acute IgM by this time |  | consistent with evolving acute infection |  | consistent with evolving acute infection |