Signs and Symptoms	• **Acute**: often asymptomatic; about 20–30% of those with acute infections have symptoms • **Chronic**: typically asymptomatic, often diagnosed due to screening or liver damage • **Perinatal**: usually asymptomatic
Incubation	**Acute**: if symptomatic, usually 2-12 weeks (range 2 weeks – 6 months)
Case classification	**Clinical criteria, acute cases**: Either jaundice **OR** ALT > 200 IU/L **OR** total bilirubin ≥ 3.0 mg/dL **AND** the absence of a more likely diagnosis (which may include evidence of acute liver disease due to other causes or advanced liver disease due to pre-existing chronic Hepatitis C virus (HCV) infection or other causes, such as alcohol exposure, other viral hepatitis, hemochromatosis, etc.)
	Laboratory criteria: Any positive: i.e. detection of antibodies to hepatitis C virus (anti-HCV), detection of virus in a nucleic acid test (NAT) for HCV RNA (qual., quant., or genotype), presence of HCV antigens. Seroconversion can confirm acute cases. *No single test currently distinguishes acute from chronic infection.*
Differential diagnosis	Hepatitis A or B, chemical hepatitis, autoimmune hepatitis, biliary disease, malignancy, metabolic disease
Treatment	Effective HCV medications with minimal side effects are currently available (i.e. direct-acting antivirals). Consult medical provider for evaluation and most recent treatment recommendations.
Duration	Acute illness asymptomatic or lasting several weeks; chronic infection lifelong
Exposure	Blood (shared drug equipment, rarely medical procedure, pre-1992 transfusions/transplants, sexual, birth); communicable: acute – symptom onset until resolved, chronic - lifelong
Laboratory testing	LHJ and Office of Infectious Disease (OID) arrange testing if suspected cluster. • Washington State Public Health Laboratories will hold specimen or forward to CDC • **Best specimen**: Acute serum, spun down and frozen immediately *Specimen shipping (Section 4):* Keep specimens **frozen,** ship according to PHL requirements: https://doh.wa.gov/public-health-provider-resources/public-health-laboratories/lab-test-menu
Public health actions	• Report suspected health care-risk to **DOH Office of Infectious Disease** (call 360-236-3444 or email Hepatitis@doh.wa.gov). Facilitate collection and freezing of serum if source of illness is possible healthcare exposure; conduct sequencing if part of a suspected cluster. • *Infection Control:* If HCV RNA positive, standard precautions in healthcare settings. If **report is consistent with Acute hepatitis C:** • Determine if reported previously by searching in Washington Disease Reporting System (WDRS) • Interview acute case for exposures, particularly bloodborne and health care exposures • Acute case should be encouraged to avoid alcohol; get hepatitis A and B vaccines if needed; be evaluated for treatment; use barrier methods during sex; not share: needles, other drug equipment, diabetes supplies, razors, toothbrushes, or nail clippers; be referred to treatment/linked to care and/or other supportive services • Enter case into WDRS using the "Acute HCV" wizard If **report is consistent with Chronic hepatitis C:** • Determine if reported previously by searching in WDRS • Conduct follow-up with laboratory, provider, and/or case if case DOB is in 1992 or later • Educate case in the same way as acute cases

	• Enter case into WDRS using one of the chronic HCV wizards If **report is consistent with Perinatal hepatitis C:** • Determine if reported previously by searching in WDRS • Enter case into WDRS using the "Perinatal HCV" wizard • Educate parents/guardians about importance of monitoring liver health, having child evaluated for treatment, getting hepatitis A and B vaccines If **positive laboratory report only:** • Determine if in WDRS. If prior report, decide if new type (e.g., acute case is now chronic) • Ask provider if case is acute or chronic. Prioritize cases likely to be acute (e.g., ALT>200, bilirubin>=3.0, or born 1992 or later), perinatal (<3 years) or new diagnosis (e.g., blood bank report). Attempt to contact case if no provider info. • Use one of the WDRS wizards to input data. The "HCV - Lab Surveillance Only" wizard may be used if the only data collected for the case was from the reported laboratory result. DOH case reporting forms that align with WDRS wizards may be found on the DOH website https://doh.wa.gov/public-health-healthcare-providers/notifiable-conditions/list-notifiable-conditions **Other resources:** • CDC Viral Hepatitis Surveillance and Case Management Guidance https://www.cdc.gov/hepatitis/statistics/surveillanceguidance • AASLD/IDSA HCV Guidance: Recommendations for Testing, Managing, and Treating Hepatitis C http://hcvguidelines.org • The Hepatitis Education Project https://hepeducation.org • Hepatitis WDRS Resources https://doh.wa.gov/WDRSHepatitis

Hepatitis C

1. DISEASE REPORTING

A. Purpose of Reporting and Surveillance

1. To identify sources of infection and to prevent further transmission from such sources.
2. To identify new groups at risk and reduce further cases.
3. To inform cases about treatment options.
4. To educate cases and contacts about transmission of hepatitis C virus and how to reduce the risk of transmission.
5. To better understand the epidemiology and burden of morbidity from hepatitis C infection.

B. Legal Reporting Requirements

Laboratories, health care providers, and health care facilities shall report the patient's race, ethnicity, and preferred language as outlined in WAC Chapter 246-101 https://app.leg.wa.gov/WAC/default.aspx?cite=246-101

Furthermore, any individual or entity that conducts an HCV rapid screening test (RST) (e.g. HCV rapid antibody) meets the definition of a laboratory and must report positive results to the local health jurisdiction within 2 business days. They must also report deidentified negative HCV screening results, at least annually to DOH.

Laboratories

1. Notifiable to local health jurisdiction within 2 business days:

    a. Positive result by any method. Positive and nonpositive results for: HCV nucleic acid detection (NAT or NAAT) for qualitative, quantitative, and genotype tests.

        i. If associated with a positive result, and available: Pregnancy status, Hepatocellular enzyme levels (e.g. ALT, total bilirubin), Negative result for IgM anti-HAV, and Negative result for IgM anti-HBc.

2. Deidentified negative screening (e.g. HCV antibody/anti-HCV) results notifiable at least annually to DOH.

Health care providers, Health care facilities, and Local health jurisdictions

1. Acute Hepatitis C (initial diagnosis only)

a. Health care providers and facilities: Notifiable to local health jurisdiction within 24 hours

b. Local health jurisdictions: Acute cases notifiable to the Washington State Department of Health (DOH) Office of Infectious Disease (OID) within 7 days of case investigation completion or summary information required within 21 days of initial notification to local health authorities.

2. Chronic Hepatitis C (initial diagnosis only)

a. Health care providers and facilities: Notifiable to local health jurisdiction within 3 business days

b. Local health jurisdictions: Chronic cases notifiable to DOH Office of Infectious Disease (ID) within 7 days of case investigation completion, or summary information required within 21 days of initial notification to local health authorities.

3. Perinatal Hepatitis C (initial diagnosis only)

a. Health care providers and facilities: Notifiable to local health jurisdiction within 24 hours

b. Local health jurisdictions: Perinatal cases notifiable to OID within 7 days of case investigation completion or summary information required within 21 days of initial notification to local health authorities.

C. Local Health Jurisdiction Investigation Responsibilities

- Laboratory report only: Determine if the case meets acute, chronic or perinatal hepatitis C case definition (Sections 3, 4 and 5). If this cannot be determined and case investigation cannot be initiated, enter as a chronic case using the "Hepatitis C - lab surveillance only" form https://www.doh.wa.gov/Portals/1/Documents/Pubs/150-114-ReportForm-HepC-Chronic-LabOnly.pdf and the "Chronic HCV - lab surveillance only" wizard in WDRS.

1. Case identified as Acute hepatitis C

   a. Determine if the reported patient was previously reported as an acute hepatitis C case in the Washington Disease Reporting System (WDRS) and update as needed.

   b. Begin follow-up investigation for a new acute hepatitis C case within 3 work days.

   c. Complete the acute hepatitis C report form: https://www.doh.wa.gov/Portals/1/Documents/Pubs/150-115-ReportForm-HepC-Acute.pdf and enter the data into WDRS using the "Acute HCV" wizard.

   d. Inform the case of treatment options and ways to minimize disease progression, and refer them to health care and supportive services (see Section 5).

   e. Educate the case about hepatitis C and how to reduce the risk of transmission (see Section 5 & 6).

2. Case identified as Chronic hepatitis C

   a. Determine if the reported patient was previously reported in WDRS. If previously reported as a chronic hepatitis C case in WDRS, update as needed.

      If previously reported as an acute case and now a chronic case, complete data entry for the chronic case within the same event using a chronic WDRS wizard. Do not delete any data associated with the patient's acute case.

   b. Begin follow-up investigation for a new chronic hepatitis case within 5 work days. The level of investigation for chronic hepatitis cases may vary (see Section 5).

   c. Complete one of the chronic hepatitis C report forms and enter the data into WDRS using the corresponding WDRS wizard. DOH case reporting forms that align with

WDRS wizards may be found on the DOH website https://doh.wa.gov/public-health-healthcare-providers/notifiable-conditions/list-notifiable-conditions.

i. The "Chronic HCV case – minimum required fields" form https://doh.wa.gov/sites/default/files/2022-11/150-169-ReportForm-HepC-Chronic-Min.pdf should be considered—the data elements in this form and corresponding WDRS wizard are used in metrics to track the progress of case completeness, in the context of Foundational Public Health Services state funding. Reach out to the DOH Hepatitis C team Hepatitis@doh.wa.gov for additional information.

d. Inform the case of treatment options and ways to minimize disease progression, and refer them to health care and supportive services (see Section 5).

e. Educate the case about hepatitis C and how to reduce the risk of transmission (see Section 5 & 6).

3. Case identified as Perinatal hepatitis C

a. Determine if the patient was reported previously in WDRS.

b. Begin follow-up investigation for a new perinatal case within 3 work days.

c. Complete the "Hepatitis C – perinatal" form https://www.doh.wa.gov/Portals/1/Documents/Pubs/150-113-ReportForm-HepC-Perinatal.pdf and enter the data into WDRS using the "Perinatal HCV" wizard.

d. Educate the parent(s)/guardian(s) about hepatitis C and how to reduce the risk of transmission (see Section 5 & 6).

4. Case is a suspected re-infection.

a. In rare circumstances, persons who have achieved sustained virologic response to HCV antivirals, or who have cleared the infection without treatment will become re-infected with HCV. Evidence of re-infection includes:

i. New positive RNA results following at least two negative RNA results from specimens collected least 12 weeks apart, and

ii. Positive genotype results indicating infection with a genotype that differs from that of the initial infection (e.g., genotype 1 detected in a prior year, and genotype 3 detected in the current reporting year).

b. Re-infected individuals should be reported as new HCV cases in WDRS and classified under the 2020 case definitions. Re-infection cases can be either acute or chronic, depending on the timing of identification. Please contact the DOH OID Hepatitis C Surveillance Program for assistance with reporting re-infection cases in WDRS using Hepatitis@doh.wa.gov.

Note: Additional information for completing routine and priority surveillance investigations for hepatitis C cases can be found in Section 5.

Visit https://doh.wa.gov/WDRSHepatitis for resources related to the hepatitis model in WDRS.

Visit https://www.cdc.gov/hepatitis/statistics/surveillanceguidance/ for additional viral hepatitis surveillance and case management guidance from CDC.

2. THE DISEASE AND ITS EPIDEMIOLOGY

A. Etiologic Agent

Hepatitis C virus (HCV) is an RNA virus in the Flavivirus family and unrelated to viruses that cause the diseases hepatitis A, hepatitis B, hepatitis D, and hepatitis E. There are at least six hepatitis C virus genotypes (and over 50 subtypes): in this country genotype 1 is the most common. Concurrent infections with more than one genotype are rare but occur.

B. Clinical Manifestations

Most persons with newly acquired hepatitis C virus infections are either asymptomatic or experience mild symptoms unlikely to prompt a health care visit. About 20–30% of newly infected persons experience fatigue, abdominal pain, poor appetite, or jaundice. Additional symptoms can include fever, dark urine, pale stools, nausea, vomiting, and joint pain. The clinical presentation is indistinguishable from other viral liver infections such as hepatitis A or hepatitis B. Fulminant hepatitis C infection is rare, but can be fatal. The most characteristic feature of acute hepatitis C is an elevation in serum alanine aminotransferase (ALT) levels. ALT levels fluctuate in persons with chronic hepatitis C.

Between 75% and 85% of acute hepatitis C infections become chronic with long-term complications including chronic liver disease, hepatocellular carcinoma, and cirrhosis. The risk of these sequelae increases for dual infections with both hepatitis B and hepatitis C viruses. Patients with chronic liver disease due to hepatitis C virus are also at an increased risk of fulminant hepatic failure if they become infected with hepatitis A virus.

C. Hepatitis C in Washington

Among people living in Washington, an average of 107 acute hepatitis C infections were reported annually from 2017 through 2021, and the number of reported acute infections increased each year except 2019. During 2021, there were 1.6 acute infections reported per 100,000 persons, representing a 60% increase from the 1.0 infections per 100,000 in 2017. An average of 6,341 chronic hepatitis C infections were reported annually to DOH from 2017 through 2021.

D. Reservoir

Humans living with hepatitis C infection are the reservoir. Those who are acutely infected represent people who are likely involved in active transmission of hepatitis C. Persons with chronic infections are also important sources of transmission because they are infectious for many years, compared to the few weeks that resolved acute hepatitis C are infectious.

E. Modes of Transmission See: https://www.cdc.gov/hepatitis-c/about/

Hepatitis C virus is transmitted primarily through large or repeated percutaneous (i.e., passage through the skin) exposures to infectious blood, such as:

- Sharing injection drug use equipment (currently the most common mode in the United States)
- Receipt of donated blood, blood products, and organs (rare since 1992)
- Needle-stick injuries in healthcare settings
- Birth to a hepatitis C virus-infected mother

Less frequently hepatitis C is transmitted through:

- Sex with an infected person (an inefficient means of transmission)
- Sharing personal items contaminated with infectious blood, such as razors, nail clippers or toothbrushes (also inefficient vectors of transmission)
- Inappropriate infection control during surgery or other invasive healthcare procedures, such as medication injections (reuse of syringes with multidose vials), use of diagnostic equipment such as endoscopes, dialysis (exposure usually recognized in the context of outbreaks), or diabetes blood testing procedures (e.g., shared lancets for obtaining specimens)

F. Incubation Period

For symptomatic acute cases incubation is usually 2–12 weeks (range 2 weeks-6 months).

G. Period of Communicability

Communicability begins at least one week before symptom onset (2-10 weeks after exposure if asymptomatic) and persists indefinitely if chronic infection develops. Transplacental transmission primarily occurs for women with high viral titers.

H. Treatment

Protocols change periodically, so refer to healthcare providers and guidelines for treating acute, chronic or perinatal hepatitis C, particularly for infants who may spontaneously clear the virus. Success rates are improving and additional therapeutics continue to be developed. In fact, effective HCV medications with minimal side effects are currently available (i.e. direct-acting antivirals).

Resources:

- http://hcvguidelines.org/
- https://www.cdc.gov/hepatitis-c/hcp/clinical-overview/

3. CASE DEFINITIONS

A. Acute Hepatitis C (2020)

All hepatitis C virus cases in each classification category should be > 36 months of age, unless known to have been exposed non-perinatally.

1. Clinical criteria:

   One or more of the following:

   - Jaundice, **OR**
   - Peak elevated serum alanine aminotransferase (ALT) level >200 IU/L **OR**
   - Peak elevated total bilirubin levels ≥ 3.0 mg/dL

   AND

   The absence of a more likely diagnosis (which may include evidence of acute liver disease due to other causes or advanced liver disease due to pre-existing chronic hepatitis C virus (HCV) infection or other causes, such as alcohol exposure, other viral hepatitis, hemochromatosis, etc.)

2. Laboratory criteria for diagnosis:

   Presumptive laboratory evidence:

   - A positive test for antibodies to hepatitis C virus (anti-HCV)

   Confirmatory laboratory evidence:

   - Positive hepatitis C virus detection test: Nucleic acid test (NAT) for HCV RNA positive (including qualitative, quantitative or genotype testing), **OR**
   - A positive test indicating presence of hepatitis C viral antigen(s) (HCV antigen)

3. Case classification:

   Probable:

   - A case that meets the clinical case definition and has a positive anti-HCV antibody test **AND**
   - Has no documentation of an anti-HCV or HCV RNA test conversion within 12 months, **AND**
   - Does not have a hepatitis C virus detection test reported §

     § When an individual's lab history indicates presence of antibodies, but all virus detection tests are negative (i.e. a person has only **negative** HCV RNA (NAT) result(s) and one or more **positive** antibody results):
     - if the negative RNA test was done 3 months or less *after* their first positive antibody, with no other information to indicate that the person is a case, then the individual should **not** be reported as a Probable chronic hepatitis C case
     - if the negative RNA test was done in the same calendar year *before* their first positive antibody, with no other information to indicate that the person is a case, then the individual should **not** be reported as a Probable chronic hepatitis C case

   Confirmed:

   - A case that meets the clinical case definition and has a positive hepatitis C virus detection test (HCV NAT or HCV antigen) **OR**
   - A documented negative HCV antibody followed within 12 months by a positive HCV antibody test (anti-HCV test conversion) in the absence of a more likely diagnosis, **OR**
   - A documented negative HCV antibody OR negative hepatitis C virus detection test (in someone without a prior diagnosis of HCV infection) followed within 12 months by a positive hepatitis C virus detection test (HCV RNA test conversion) in the absence of a more likely diagnosis

B. Chronic Hepatitis C (2020)

All hepatitis C virus cases in each classification category should be > 36 months of age, unless known to have been exposed non-perinatally.

1. Clinical criteria:

   One or more of the following:

   - Jaundice, **OR**
   - Peak elevated serum alanine aminotransferase (ALT) level >200 IU/L **OR**
   - Peak elevated total bilirubin levels ≥ 3.0 mg/dL

   AND

   The absence of a more likely diagnosis (which may include evidence of acute liver disease due to other causes or advanced liver disease due to pre-existing chronic hepatitis C virus (HCV) infection or other causes, such as alcohol exposure, other viral hepatitis, hemochromatosis, etc.).

2. Laboratory Criteria for Diagnosis:

   - A positive test for antibodies to hepatitis C virus (anti-HCV) **OR**
   - A positive hepatitis C virus detection test: Nucleic acid test (NAT) for HCV RNA positive (including qualitative, quantitative or genotype testing), **OR**
   - A positive test indicating presence of hepatitis C viral antigen(s)

3. Case Classification:

   Probable:

   - A case that does **not** meet the clinical criteria **OR** has **no** report of clinical criteria **AND**
   - Does not have a documented negative HCV antibody, HCV antigen or NAT laboratory test result followed within 12 months by a positive result of any of these tests (test conversion) **AND**
   - Has a positive anti-HCV antibody test **AND**
   - Does not have an HCV RNA detection test reported §

     § When an individual's lab history indicates presence of antibodies, but all virus detection tests are negative (i.e. a person has only **negative** HCV RNA (NAT) result(s) and one or more **positive** antibody results):
     - if the negative RNA test was done 3 months or less *after* their first positive antibody, with no other information to indicate that the person is a case, then the individual should **not** be reported as a Probable chronic hepatitis C case
     - if the negative RNA test was done in the same calendar year *before* their first positive antibody, with no other information to indicate that the person is a case, then the individual should **not** be reported as a Probable chronic hepatitis C case

   Confirmed:

   - A case that does **not** meet the clinical criteria **OR** has **no** report of clinical criteria **AND**

- Has a positive HCV NAT or HCV antigen test (may have any anti-HCV antibody test result) **AND**
- Does not have a documented negative HCV antibody, HCV antigen or NAT laboratory test result followed within 12 months by a positive result of any of these tests (test conversion)

Note: A confirmed acute case may not be reported as a probable chronic case. A case meeting the chronic case definition is reported regardless of whether viral clearance is identified after the initial report. In addition, a person previously reported as an acute case in Washington State can subsequently be reported only as a confirmed chronic case and must have evidence of virus detection **a year or longer** from the acute diagnosis.

C. Perinatal Hepatitis C (2018)

1. Clinical case definition:

   Perinatal hepatitis C in pediatric patients may range from asymptomatic to fulminant hepatitis.

2. Laboratory criteria for diagnosis:

   - A positive test for HCV RNA between 2 and 36 months of age; **OR**
   - A positive HCV genotype test between 2 and 36 months of age; **OR**
   - A positive HCV antigen test between 2 and 36 months of age

3. Case classification:

   Confirmed:

   Child who has a positive test for HCV RNA nucleic acid amplification test (NAAT), HCV antigen, or detectable HCV genotype at ≥2 months and ≤36 months of age and is not known to have been exposed to HCV via a mechanism other than perinatal.

   Note: Test results prior to 2 months of age should not be used for classification. Test results after 36 months of age should be reported under the 2020 Acute or 2020 Chronic HCV Infection case classifications and not as a perinatal HCV infection. Cases in the specified age range that are known to have been exposed to HCV via healthcare and not perinatally should also be reported under the 2020 Acute or 2020 Chronic HCV Infection case classifications and not as perinatal HCV infection. Event date should be based on earliest relevant laboratory test date within the 2-36 month window.

4. DIAGNOSIS AND LABORATORY SERVICES

A. Laboratory Diagnosis

Tests used to diagnose hepatitis C virus (HCV) infection include:

- Screening tests for antibody to HCV (anti-HCV) (e.g. by enzyme immunoassay [EIA] or enhanced chemiluminescence immunoassay [CIA])
- Qualitative tests to detect presence or absence of virus and qualitative tests to detect amount (titer) of virus (e.g. HCV RNA polymerase chain reaction [PCR])

- Genotyping
- Tests for HCV viral antigen (none currently FDA-approved)

Anti-HCV generally can be detected 4–10 weeks after infection, but may be delayed up to 6 months or may never be detected in an immunocompromised patient. Anti-HCV enzyme immunoassays (EIA) and qualitative PCR are more sensitive tests; EIA may be more prone to false positives in low prevalence populations. Maternal antibodies may persist, so antibody testing should be interpreted with caution in infants under 18 months.

Appendix B is a glossary of hepatitis test terms. For information about interpreting laboratory tests for HCV, see table below and:
https://www.cdc.gov/hepatitis/statistics/SurveillanceGuidance/HepatitisC.htm

Interpretation of Results for Tests of Hepatitis C Virus (HCV), for acute and chronic cases	**Either jaundice OR ALT > 200 IU/L OR bilirubin >= 3.0 mg/dL AND the absence of a more likely diagnosis than acute hepatitis C.**	
	Absent	**Present**
Any HCV nucleic acid test positive OR HCV antigen positive OR genotype positive	Confirmed, Chronic	Confirmed, Acute
HCV test conversion in past year (any negative to a positive of the same test type, or negative HCV antibody to positive HCV RNA)	Confirmed, Acute	Confirmed, Acute
HCV antibody positive only (no reported HCV RNA results OR negative RNA result(s) were done more than 3 months from the first antibody positive) §	Probable, Chronic	Probable, Acute

§ When an individual's lab history indicates presence of antibodies, but all virus detection tests are negative (i.e. a person has only **negative** HCV RNA (NAT) result(s) and one or more **positive** antibody results):

- if the negative RNA test was done 3 months or less *after* their first positive antibody, with no other information to indicate that the person is a case, then the individual should **not** be reported as a Probable hepatitis C case
- if the negative RNA test was done in the same calendar year *before* their first positive antibody, with no other information to indicate that the person is a case, then the individual should **not** be reported as a Probable chronic hepatitis C case.

B. Tests Available at the Washington State Public Health Laboratories (PHL)

Tests for hepatitis C are widely available at commercial laboratories. In certain situations where health care exposure is suspected, Office of Infectious Disease (OID) may request a specimen from a case for molecular sequencing at the Centers for Disease Control and Prevention and will provide instructions for specimen collection.

Note that PHL require all clinical specimens have two patient identifiers, a name **and** a second identifier (e.g., date of birth) both on the specimen label and on the submission form. Due to laboratory accreditation standards, specimens will be rejected for testing if not properly identified. Also include specimen source and collection date.

C. Specimen Collection

If part of an outbreak investigation, follow OID instructions to obtain a serum or EDTA tube, spin promptly, separate the serum into a shipping tube, and promptly ship cold according to PHL requirements: https://doh.wa.gov/public-health-provider-resources/public-health-laboratories/lab-test-menu.

If unable to ship promptly, store at -70° C and then ship on dry ice.

5. ROUTINE CASE INVESTIGATION

A. Evaluate the Diagnosis

Review available clinical and laboratory information for each reported hepatitis C case to distinguish between acute, chronic, and perinatal infections. If status as acute, chronic, or perinatal hepatitis C is unknown for a report of a positive laboratory test, the "Hepatitis C – Positive Laboratory Report" form (Appendix A) https://doh.wa.gov/sites/default/files/2024-05/150-117-ReportForm-HepC-Positive.pdf can be faxed to the ordering healthcare provider for determination if the case is acute or chronic hepatitis C.

If staff time constraints prevent contacting all patients or providers, prioritize cases according to DOH guidelines, available at https://www.doh.wa.gov/Portals/1/Documents/Pubs/150-134-PrioritizingHCV.pdf High priority cases are: cases of public health importance (suspected healthcare-associated infection or part of an outbreak), potential acute cases (ALT > 200 IU/L or bilirubin >= 3.0 mg/dL), children under 3 years of age, and cases in persons born in 1992 or later. Refer to the appropriate section below if a provider returns a diagnosis of acute, chronic, or perinatal hepatitis C. If a provider cannot determine if case is acute or chronic, enter the case as chronic hepatitis C. If the case does not have a provider (e.g. positive report from a blood bank) then it is likely an initial diagnosis and the case should be interviewed.

Very rarely, a report may represent a person's second hepatitis C infection with a different genotype and should be entered as a new event. Contact the DOH OID Hepatitis C Surveillance Program for assistance with reinfection cases at Hepatitis@doh.wa.gov.

1. Cases determined to be **acute hepatitis C:**
   a. Determine if the patient was previously reported in Washington Disease Reporting System (WDRS). For previously reported acute cases, update any newly available descriptive (e.g., demographics, address), clinical, or laboratory data.
   b. For newly reported acute cases, attempt to obtain information from the healthcare provider, medical record, hospital infection control staff, or patient in order to

confirm the acute hepatitis C diagnosis. If the person has symptoms consistent with acute hepatitis, determine if hepatitis A and B were ruled out since these infections are clinically indistinguishable from hepatitis C.

Report all *Confirmed* and *Probable* acute hepatitis C cases to Office of Infectious Disease by completing the acute hepatitis C report form https://www.doh.wa.gov/Portals/1/Documents/Pubs/150-115-ReportForm-HepC-Acute.pdf and entering the data into WDRS using the "Acute HCV" wizard.

c. Attempt to determine the source of infection, particularly medical or dental exposures, including outpatient procedures and diabetes blood testing in residence facilities. Refer to section B below for additional information regarding identifying source of infection.

d. Educate the case about hepatitis C and how to reduce the risk of transmission.

e. Educate the case about hepatitis C: avoid further damage to the liver (avoid alcohol and hepatotoxic medications; obtain hepatitis A and hepatitis B vaccines if susceptible); avoid transmission (use barrier methods during sex, do not share needles, syringes, blood testing equipment, razors, toothbrush, or nail clippers).

f. Inform the case of treatment options and refer to a healthcare provider for evaluation for treatment, which may prevent chronic infection. Effective HCV medications with minimal side effects are currently available (i.e. direct-acting antivirals).

2. Cases determined to be **chronic hepatitis C:**

a. For all chronic hepatitis C reports received, determine if the patient was previously reported as an acute or chronic hepatitis C case in WDRS.

b. If previously reported as a chronic case, attempt to obtain missing descriptive (e.g., address, race/ethnicity), clinical, or laboratory data.

c. If previously reported as acute hepatitis C, verify that case now meets the case definition as a new, separate report of chronic hepatitis C with viral RNA detected at least a year from acute onset. Then, complete data entry using one of the chronic HCV WDRS wizards. DOH case reporting forms that align with WDRS wizards may be found on the DOH website https://doh.wa.gov/public-health-healthcare-providers/notifiable-conditions/list-notifiable-conditions

d. For a newly diagnosed chronic case, complete data entry using one of the chronic HCV WDRS wizards. DOH case reporting forms that align with WDRS wizards may be found on the DOH website https://doh.wa.gov/public-health-healthcare-providers/notifiable-conditions/list-notifiable-conditions

e. If capacity allows, collect exposure and risk information, particularly of medical or dental exposures, including outpatient procedures and diabetes blood testing in residence facilities. Refer to section B below for additional information regarding identifying source of infection.

f. Educate the case about hepatitis C and how to reduce the risk of transmission.

g. Educate the case about hepatitis C: avoid further damage to the liver (avoid alcohol and hepatotoxic medications; obtain hepatitis A and hepatitis B vaccines if

susceptible); avoid transmission (use barrier methods during sex, do not share needles, syringes, blood testing equipment, razors, toothbrush, or nail clippers);

h. Inform the case of treatment options and refer to a healthcare provider for evaluation for treatment. Effective HCV medications with minimal side effects are currently available (i.e. direct-acting antivirals).

3. Cases determined to be **perinatal hepatitis C:**
   a. Determine if the patient was previously reported in WDRS. For previously reported perinatal cases, update any newly available descriptive (e.g., demographics, address), clinical, or laboratory data.
   b. Note that discrete onset of symptoms is **not** required for perinatal hepatitis C cases. A perinatal case (diagnosed up to 36 months) should **not** be entered as either acute or chronic unless infection is known to have been transmitted via another mechanism (e.g., a healthcare-associated exposure). A child over 3 years of age with presumptive perinatal transmission should be entered as a chronic case.
   c. Report all *Confirmed* perinatal hepatitis C cases to Office of Infectious Disease by completing the perinatal hepatitis C report form https://www.doh.wa.gov/Portals/1/Documents/Pubs/150-113-ReportForm-HepC-Perinatal.pdf and entering the data into WDRS using the "Perinatal HCV" wizard.
   d. Educate the parent(s)/guardian(s) about hepatitis C and how to reduce the risk of transmission. The child should receive regular healthcare to monitor liver health, avoid hepatotoxic medications, and receive hepatitis A and B vaccines on schedule. To reduce the risk of transmission, household members should not share personal items like razors, toothbrushes, or nail clippers.
   e. Refer the child and the birth parent to a healthcare provider as appropriate for evaluation for HCV treatment.

All cases of hepatitis C should be reported in WDRS. If it cannot be determined whether the patient is acute, chronic or perinatal, enter the case as a chronic subtype. Local health jurisdiction (LHJ) responsibilities will vary in the extent an investigation is conducted for routine surveillance or priority surveillance.

DOH case reporting forms that align with WDRS wizards may be found on the DOH website https://doh.wa.gov/public-health-healthcare-providers/notifiable-conditions/list-notifiable-conditions Several short and long forms for HCV investigations exist, depending on LHJ capacity for surveillance.

- **Routine surveillance**: Begin follow-up investigation for routine chronic hepatitis cases within 5 business days of initial notification.
  - At a minimum, complete the information specified on the "Hepatitis C – lab surveillance only" form https://www.doh.wa.gov/Portals/1/Documents/Pubs/150-114-ReportForm-HepC-Chronic-LabOnly.pdf for each routine case investigation.
  - The "Chronic HCV case – minimum required fields" form https://doh.wa.gov/sites/default/files/2022-11/150-169-ReportForm-HepC-Chronic-Min.pdf should also be considered—the data elements in this form and corresponding WDRS wizard are used in metrics to track the progress of case

completeness, in the context of Foundational Public Health Services state funding. Reach out to the DOH Hepatitis C team Hepatitis@doh.wa.gov for additional information.

- Enter *Confirmed* and *Probable* chronic hepatitis C cases in WDRS within 7 days of case investigation completion, or provide summary information within 21 days of initial notification.

- **Priority surveillance**: Local health jurisdictions should prioritize cases of public health importance, potential acute cases (even if they are determined not to meet the acute case definition and are instead subtyped as chronic), cases in children under 3 years, and cases in persons born in 1992 or later. If resources allow, cases in pregnant persons should also be prioritized (refer to this document for prioritizing HCV investigations: https://www.doh.wa.gov/Portals/1/Documents/Pubs/150-134-PrioritizingHCV.pdf).
  - For priority chronic cases, attempt to obtain all information on the "Hepatitis C – chronic, short" form https://www.doh.wa.gov/Portals/1/Documents/Pubs/150-050-ReportForm-HepC-Chronic-Short.pdf and enter into WDRS using the "Chronic HCV – short form" wizard.
  - If the investigator is unable to complete the short form, attempt to obtain data listed in the "Chronic HCV – minimum required fields" form and corresponding WDRS wizard https://doh.wa.gov/sites/default/files/2022-11/150-169-ReportForm-HepC-Chronic-Min.pdf. The data elements in this form and wizard are used in metrics to track the progress of case completeness, in the context of Foundational Public Health Services state funding. Reach out to the DOH Hepatitis C team (Hepatitis@doh.wa.gov) for additional information.

Follow-up on cases among persons born after 1992 – in which injection drug use may be suspected as a key risk – offers an opportunity for education and referral to services that may reduce ongoing transmission while fostering access to care for management of hepatitis and promotion of overall health (see Section 5.E for additional considerations for people who use drugs). Investigation of cases where recent transmission is likely to have occurred offers an opportunity for patient education with greatest potential for impact and for collecting data most representative of current epidemiology.

Follow-up for pregnant persons offers an important opportunity for education and improving access to care that may lead to viral clearance and thus some reduction in risk of vertical transmission to newborns.

Whenever possible, provide all persons living with hepatitis C with information about how to protect and promote liver health as well as overall health, prevent transmission to others, and treatment/linkage to care options. Key messages include: avoiding liver toxins (particularly alcohol but also some over the counter medications); the importance of both hepatitis-related and routine primary care; hepatitis B and HIV screening as necessary; and vaccination to prevent hepatitis A and hepatitis B as needed. Furthermore, effective HCV medications with minimal side effects are currently available (i.e. direct-acting antivirals). Provide or direct cases to resources including the Hepatitis Education Project http://hepeducation.org/ and CDC https://www.cdc.gov/hepatitis-c/public-resources/. See Section 5E for additional considerations for people who use drugs.

B. Identify the Source of Infection

For acute infections and any infection suspected to have been acquired through a medical, dental, or commercial (e.g. tattoo) procedure, collect details about possible exposures, including high risk behaviors. For symptomatic acute cases, collect exposure and risk information during the 14-180 days before the onset of illness with particular emphasis on the initial 1-3 months before onset. However, detailed investigation of earlier exposures may be appropriate for a person with documented negative hepatitis status prior to a specific event such as a medical procedure between the negative and positive results (test conversion). For example, in a case classified as acute due to anti-HCV/HCV antibody or HCV RNA test conversion within a year, in the absence of clinical criteria, 14 days-12 months prior to diagnosis date should be considered when determining potential exposure and risk.

Exposure information should include:

- Injection and non-injection drug use.
- Occupational or other needlestick injuries.
- Receipt of blood transfusion, other blood products, organs, or tissues.
- Potential medical or dental exposures including dialysis, dental or surgical (in-patient or out-patient) care, or injections (particularly for pain), and diabetes blood testing in a healthcare or long-term care setting. See: http://www.cdc.gov/hepatitis/outbreaks/healthcareinvestigationguide.htm
    1) List dates of all healthcare encounters during the likely exposure period.
    2) Determine the types of procedures performed during each healthcare encounter, especially those involving percutaneous exposures (e.g., injections, infusions, skin puncture with a needle/lancet)
    3) Review regulatory/medical board reports/complaints to determine if the healthcare facility and/or providers have been under investigation
    4) Contact the healthcare facility to tell them of the investigation and determine if they were aware of the current case(s) under investigation or any additional infections.
    5) For additional support or guidance, contact the DOH Hepatitis C team (call 360-236-3444 or email Hepatitis@doh.wa.gov) or email the DOH Healthcare-Associated Infections Epidemiology Outbreak Team at HAIEpiOutbreakTeam@doh.wa.gov.
- Other potential blood exposures, including tattooing, piercing, or acupuncture.
- Accidental exposure of skin, eyes, mucous membranes, or a wound to the blood of another person.
- High-risk sexual contact (multiple partners, history of other STIs, anal sex, etc.).

For chronic infections, if capacity allows and unless otherwise specified, lifelong exposure and risk information should be collected.

Identifying a specific source of infection for recently identified chronically infected persons may be difficult. Possible sources should be pursued if there is a good chance of identifying additional chronic hepatitis C infections or a preventable source. For example, if the newly diagnosed case is a child, it would be reasonable to screen parents and other household members for evidence of infection.

C. Identify Potentially Exposed Persons

1. Determine if the case has donated blood or plasma in the 6 months prior to onset or any time thereafter. If so, notify the blood bank or plasma center with particulars (date, etc.).
2. If the case is a dentist, surgeon, or other health care worker, evaluate the potential for exposure to patients (see Section 6).
3. Identify persons potentially exposed to the case during the communicable period. These include sexual contacts, needle-sharing contacts, and any others who may have had direct (percutaneous or mucosal) exposure to blood. Communicability begins at least one week before symptom onset (2-10 weeks after exposure if asymptomatic) and persists indefinitely if chronic infection develops.

   Passive immunization with immune globulin is **not** effective against HCV.

   Long-term sexual contacts and persons who had direct (percutaneous or mucosal) exposure to blood (e.g., needle-sharing partners) should be educated about transmission of HCV and tested for infection. Contacts positive for HCV RNA should be evaluated as new cases. Periodic HCV testing is recommended for people who inject drugs, as well as men living with HIV that are engaging in unprotected sex with multiple male partners, and any others who have ongoing risk factors for HCV. Otherwise, routine screening is not recommended for household (nonsexual) contacts of HCV-infected persons. People actively injecting drugs should be directed to syringe service programs and offered referrals to substance use treatment programs (see Section 5.E for additional considerations for people who use drugs). Contacts who are susceptible and at risk for hepatitis A or hepatitis B should be vaccinated to prevent dual infections.

   Labor & Industries rules apply for occupational exposures. Also see Section 6.

D. Environmental Evaluation

Usually none unless transmission occurs in a dialysis center or health care facility. People who are chronically infected should ensure that surfaces and objects contaminated with blood are properly cleaned using appropriate disinfectant solutions.

E. Controlling Further Spread

1. Persons with hepatitis C should seek guidance on treatment options and linkage to care. Those who continue to be HCV RNA-positive are considered to have confirmed chronic infections and should be counseled accordingly. Effective HCV treatments with minimal side-effects are available (i.e. direct-acting antivirals).
2. All health care providers with risk for blood exposure should complete a hepatitis B vaccine series to prevent dual infections and should follow infection control protocols.
3. Hospitalized patients with hepatitis C virus (HCV) infection should be cared for using standard precautions.

4. Work, Residential or Child Care Restrictions: No occupational, school, or childcare restrictions are necessary for people living with HCV. Personal items that could be contaminated with blood or saliva should not be shared and contaminated objects or surfaces should be cleaned and disinfected as soon as possible. See Section 6B for guidance on health care workers.
5. Persons who are HCV RNA-positive should be instructed that their blood (and possibly semen or vaginal secretions) is infectious to others. They should be educated about ways to reduce the spread of their infection to others, and that effective HCV treatments with minimal side-effects are available.
    - Certain susceptible household and sexual contacts should be advised to obtain vaccinations against hepatitis A and hepatitis B https://www.cdc.gov/hepatitis/populations/stds.htm
    - Surfaces contaminated by blood should be cleaned and properly disinfected.
    - Cuts and skin lesions should be kept covered.
    - People living with HCV should not share items potentially contaminated with blood (e.g., blood testing equipment, razors, toothbrushes, or nail clippers).
    - People who inject drugs should be directed to syringe service programs and offered referrals to substance use treatment programs. Washington State Department of Health provides a list of sites offering harm reduction services in Washington State https://doh.wa.gov/you-and-your-family/drug-user-health/syringe-service-programs/syringe-service-program-directory. Information for sites providing substance use treatment can be found here https://www.warecoveryhelpline.org/. People living with HCV should not share needles, syringes, or other injection-related equipment with other people. Information for persons who inject drugs (PWID) without access to sterile needles and syringes may be found at the following link: https://www.cdc.gov/hiv/risk/drugs/index.html.
    - The risk of sexual transmission is low but not absent. People living with HCV should use barriers methods correctly every time they have sex.
    - People living with HCV should not donate blood or plasma. Any consideration of tissue, organs, or semen donation should be discussed with a healthcare provider.
    - People who are HCV RNA-positive and seek medical or dental care should notify involved personnel of their hepatitis C status.
6. People living with HCV who are pregnant: maternal antibodies may persist in a newborn, so HCV antibody testing is not recommended for children under 18 months of age. HCV RNA testing should be considered for a child as early as 2 months of age. Refer to the American Association for the Study of Liver Diseases (AASLD) and Infectious Diseases Society of America (IDSA) guidelines for additional information about HCV in children: https://www.hcvguidelines.org/unique-populations/children.
7. Educate persons with HCV infections to protect their livers from further harm:
    - Seek a provider who has experience treating HCV infections or who can assist with establishing linkage to care.

- Ask their provider about use of over-the-counter drugs (e.g., acetaminophen) and herbal medications that can damage the liver.
- Discuss ways HCV may spread to others, such as sharing equipment for drug injection or sharing other items that may have blood on them (e.g., razors). As noted above, offer referrals to syringe service programs and/or substance use treatment programs to people who are interested in addressing activities that may make them vulnerable to transmitting the virus.
- Alcohol is hard on the liver, as is HCV. For people living with chronic HCV, avoiding alcohol is important to liver health. Where avoidance isn't possible, reducing alcohol use can be helpful.
- Get vaccinated against hepatitis A and hepatitis B if susceptible.

6. MANAGING SPECIAL SITUATIONS

A. Needlesticks and Similar Exposures

The risk of hepatitis C virus (HCV) transmission following unintentional percutaneous and mucocutaneous exposures is low. As such, post-exposure prophylaxis is not routinely recommended. However, providers should consult with http://nccc.ucsf.edu/. Centers for Disease Control and Prevention (CDC) also maintains resources for post-exposure prophylaxis: https://www.cdc.gov/hepatitis-c/hcp/infection-control/index.html.

For individuals who have had an accidental needlestick or similar exposure, current CDC guidelines recommend an antibody test for HCV—with reflex HCV RNA testing, if antibody positive—as soon as possible (baseline). If the source patient is HCV RNA positive or RNA test status is unknown, follow-up testing for the individual who was exposed to the source patient's blood is recommended after baseline. The first follow-up test after baseline for HCV RNA should occur at 3-6 weeks following exposure. If this HCV RNA test is negative or unknown, a final test for HCV antibody—with reflex HCV RNA testing, if antibody positive—should be done at 4-6 months after exposure. For those who remain negative for HCV antibody at 4-6 months, no further follow-up is typically indicated; however, an additional RNA test after 4-6 months may be considered for these individuals if they are immunocompromised or have liver disease. A flow chart of this testing algorithm can be found here: https://www.cdc.gov/mmwr/volumes/69/rr/rr6906a1.htm.

Risk for HIV and hepatitis B virus should also be assessed using current CDC guidelines. Department of Labor & Industries rules apply for occupational exposures. CDC maintains resources for supporting occupational infection prevention and control, and testing recommendations: https://www.cdc.gov/hepatitis/populations/healthcaresettings.htm, https://www.cdc.gov/infection-control/hcp/safety/index.html, & https://www.cdc.gov/mmwr/volumes/69/rr/rr6906a1.htm.

B. Case is a Health Care Worker

HCV infection itself should not preclude the practice or study of medicine, surgery, dentistry, or allied health professions. If the case is a dentist, physician, nurse, or other health care worker with potential for exposing patients through blood or other body fluids:

1. If the person has acute illness, they should be discouraged from working until the acute clinical illness has resolved.
2. Standard precautions and fundamental infection-control principles should be adhered to rigorously in all health care settings for the protection of both patient and provider, regardless of HCV status, including safe injection practices and appropriate aseptic techniques like:
    - Wearing gloves for all procedures during which the hands will be in contact with patients' mucosal membranes or broken skin;
    - Avoiding situations involving sharps that could lead to exposures of susceptible persons to blood or objects contaminated with blood;
    - Effective and timely hand hygiene.
3. Employees should receive regular education (e.g. annually) on standard precautions to include safe injection practices and appropriate aseptic techniques like hand hygiene, glove use, sharp safety and injection safety.
3. Health care workers living with HCV should be encouraged to voluntarily seek confidential counseling from employee health services/occupational health regarding risk reduction strategies and treatment (effective HCV treatments with minimal side-effects are available, i.e. direct-acting antivirals).
4. Hospitals, medical and dental schools, and other institutions should have written policies and procedures for the identification and management of HCV in health care providers, students and school applicants. These policies should include relevant guidelines and recommendations that consider the management of providers with HCV that may perform exposure-prone procedures. CDC maintains resources for supporting occupational infection prevention and control, and testing recommendations: https://www.cdc.gov/hepatitis/populations/healthcaresettings.htm, https://www.cdc.gov/infection-control/hcp/safety/index.html, & https://www.cdc.gov/mmwr/volumes/69/rr/rr6906a1.htm.

C. Case is a Suspected Healthcare-associated or Iatrogenic Infection

If a possible iatrogenic case occurs in the same dental or healthcare provider or long-term care setting, and the cases have no other identified plausible source of infection or other circumstances suggesting the possibility of healthcare-associated or iatrogenic infection, notify the DOH Hepatitis C team (call 360-236-3444 or email Hepatitis@doh.wa.gov). If available, hold frozen serum or EDTA tube (at -70° C) on the cases for potential future stain typing if an outbreak is identified. Centers for Disease Control and Prevention (CDC) have a patient notification toolkit: https://www.cdc.gov/healthcare-associated-infections/hcp/patient-notification-toolkit/

If a case underwent a medical or dental procedure or has had diabetes testing in a long-term care setting and has no other identified plausible exposure source, contact the dental or healthcare provider and review infection control procedures. Consider storing a serum or EDTA tube (if available) at -70° C for genotyping in the event that an additional case is identified with a potential shared medical or dental exposure. Contact the DOH viral hepatitis team for instructions at Hepatitis@doh.wa.gov. There are CDC resources available to investigate a single case or cluster of suspected iatrogenic infection:

- http://www.cdc.gov/hepatitis/Outbreaks/HealthcareInvestigationGuide.htm
- http://www.cdc.gov/hepatitis/Outbreaks/HealthcareInvestigationCheckList.htm
- http://www.cdc.gov/hepatitis/Outbreaks/index.htm (main page)

D. Case Is a Recent Blood Donor or Recipient

The blood bank should be notified so that any unused product can be recalled and other persons be tested as appropriate (e.g., other recipient or donor for case).

E. Case Is Pregnant

Inform the pregnant person that the transmission risk to a fetus during a pregnancy and delivery is about 5%. Recommend prompt hepatitis A and hepatitis B vaccines for the pregnant person if susceptible, for the newborn (hepatitis B vaccine series starting at birth and the hepatitis A series starting at age 1 year), for sexual contacts and for household members. Recommend HCV RNA testing of the infant after 2 months of age (see Section 5E for additional information about testing in infants). Recommend case seek a provider for HCV treatment.

F. Case Is a Perinatal Case

Inform the birth parent that the transmission risk during a future pregnancy and delivery is about 5%. Recommend hepatitis A and hepatitis B vaccines for the parent and the infant if still susceptible (i.e. did not receive the hepatitis B vaccine series starting at birth and the hepatitis A series starting at age 1 year) and for all future babies. Educate the parents/guardians about the importance of monitoring liver health and having the child evaluated for treatment by a provider. Perinatal hepatitis C cannot be diagnosed until the child is at least 2 months of age; HCV treatment usually cannot start until at least 3 years of age.

7. ROUTINE PREVENTION

A. Immunization Recommendations: None

B. Routine Prevention (Source: http://www.cdc.gov/hepatitis/HCV/index.htm)

Provide the following information to persons at risk of infection:

- There is no vaccine to prevent hepatitis C
- If you are injecting drugs, access substance use treatment services; if you continue using, never share needles, syringes, water, cleaning material, or “works”
- Get vaccinated against hepatitis A and hepatitis B if susceptible
- Don’t share personal care items that might get blood on them (e.g., razor, toothbrush)

- If you are a health care or public safety worker, always follow routine barrier precautions and safely handle needles and other sharps
- Consider the risks if you are thinking about getting a tattoo or body piercing. Make sure the shop follows proper infection control protocols
- Hepatitis C can be spread by sex, but this is rare. Use latex barriers correctly and every time to prevent the spread of sexually transmitted diseases
- People living with HCV should not donate blood or plasma. Any consideration of tissue, organs, or semen donation should be discussed with a healthcare provider.

C. Identifying and Testing Persons at Risk for HCV Infection

Many persons with hepatitis C infection are unaware of their infection and thus will not receive education about the disease. Advise hepatitis C testing (test once unless specified or there are ongoing risk factors) for persons who:

- Are 18 years of age and older (get tested at least once in your lifetime)
- Are pregnant (get tested during each pregnancy)
- Were born from 1945 through 1965
- Currently inject drugs (get tested regularly)
- Ever injected drugs, including those who injected once or a few times many years ago
- Received a blood transfusion or organ transplant before July 1992, or were notified that they received blood or an organ from a person who later tested positive; does not apply to tissue or body fluid transplant (e.g., cornea, skin, sperm, ova)
- Received clotting factor concentrates produced before 1987
- Were ever on long-term hemodialysis
- Have HIV infection
- Were born to a hepatitis C-infected person
- Are a health care, emergency medical, or public safety workers who had exposure to HCV through needle sticks, sharps, or mucosal membranes
- Have evidence of chronic liver disease including abnormal liver function tests

Those testing positive for hepatitis C should receive counseling and referral for medical follow-up:

https://www.cdc.gov/hepatitis-c/hcp/diagnosis-testing/

https://www.hcvguidelines.org/

ACKNOWLEDGEMENTS

This document is a revision of the Washington State Guidelines for Notifiable Condition Reporting and Surveillance published in 2002 which were originally based on the Control of Communicable Diseases Manual (CCDM), 17th Edition; James Chin, Ed. APHA 2000. We would like to acknowledge the Oregon Department of Human Services for developing the format and select content of this document.

UPDATES

February 2010: CDC/CSTE case definition replaced the condition name "Hepatitis C Virus Infection (Past or Present) with "Hepatitis C, Chronic"

January 2011:
The Legal Reporting Requirements section has been revised to reflect the 2011 Notifiable Conditions Rule revision. Acute case definition updated to include dark urine as clinical criterion and genotype as laboratory criterion. Criteria were specified for prioritizing investigations of cases likely to be new diagnoses (Section 5).

February 2012: In Section 3 case definition updated with laboratory criteria including any hepatitis C virus nucleic acid testing including genotype. Documented asymptomatic seroconversion is a confirmed case.

June 2013: In Section 6 CDC resources listed for single case investigation.

May 2014: Chronic hepatitis investigations transitioned to sampling framework.

March 2016: Case definitions updated for 2016 with addition of Probable acute and Probable chronic hepatitis C. Section 6 (Controlling Further Spread) merged into Section 5.

April 2018: All hepatitis C assigned to Office of Infectious Disease, guideline updated for WDRS, perinatal hepatitis C separated.

February 2020: Updated for 2020 acute and chronic hepatitis C case definitions, updated perinatal HCV information for WDRS, updated investigation prioritization. Other minor updates to language/formatting.

December 2022: Legal reporting requirements in Section 1 updated to align with Notifiable Conditions Rule/WAC Chapter 246-101 revisions, effective 1/1/2023. Clarification to DOH implementation of surveillance case definitions, for anti-HCV positive individuals who have only negative RNA result(s) available, made in Section 3. Data collection timeframe of potential exposure/risk for asymptomatic hepatitis C acute cases, that were identified through test conversion, clarified in Section 5B. Modifications made to Section 5 & 6, including updates on language pertaining to people who use drugs and healthcare related considerations. Current HCV screening recommendations updated in Section 7C. Other minor updates to language/formatting/links throughout.

December 2023: For 2024 WAC revision updated laboratory submission.

March 2024: Updated ADA e-mail

May 2024: Updated several broken web links.

Contact: Hepatitis C Surveillance Program, Office of Infectious Disease Assessment Unit, Washington State Department of Health (DOH), 360-236-3444 | Hepatitis@doh.wa.gov

The DOH Hepatitis C team acknowledges that there is language in this document that is gendered (e.g. "maternal antibodies) for the purposes of clinical accuracy. Whenever possible, we use gender neutral language to affirm the fact people of all genders have the capacity for pregnancy and birth.

To request this document in another format, call 1-800-525-0127. Deaf or hard of hearing customers, please call 711 (Washington Relay) or email doh.information@doh.wa.gov.

Appendix A: SAMPLE FAX FOR POSITIVE LABORATORY REPORT

A two-page fax form https://doh.wa.gov/sites/default/files/2024-05/150-117-ReportForm-HepC-Positive.pdf can be sent to the healthcare provider who requested the hepatitis C test which was reported as positive. See the next page for an example cover letter to the healthcare provider. It can be customized to the local health jurisdiction. A preview of the form can be found on the pages after the example cover letter.

The form is used for new cases. Prioritize cases likely to be acute, cases born in 1992 or later, children under 3 years, and pregnant persons. Request a Word version of the form from Office of Infectious Disease, Hepatitis C Surveillance Program (Hepatitis@doh.wa.gov) if a customized version is desired for the jurisdiction (e.g., to include the jurisdiction's logo and fax number).

If needed, write the return fax number for the local health jurisdiction above the patient information block. Using the positive laboratory report, fill in the patient name, age or birthdate if known, and test result and date. Fax the form to the healthcare provider indicated on the laboratory report.

Included on the first page of the form are questions about reasons for testing that will indicate if the case is acute (i.e., 1 - jaundice OR total bilirubin ≥ 3.0 OR ALT > 200 AND absence of more likely diagnosis than acute HCV, OR 2 - documented test conversion in past year), chronic or perinatal. There is also a field to indicate the healthcare provider's assessment of acute, chronic or perinatal status. An interview will be needed for an acute hepatitis C case or for the chronic hepatitis long form.

The second page of the form is optional and reviews the current case definitions for hepatitis C.

LHJ LOGO

To healthcare providers:

We received a positive laboratory report of a positive test for hepatitis C. Acute, chronic, and perinatal hepatitis are notifiable conditions in Washington State.

Please call our office at ###-###-#### if the case was already reported.

If the case has not been previously reported, please complete the form provided and fax it to our office at ###-###-####. Be sure to indicate if the case is acute, chronic, perinatal, or uncertain.

A person newly diagnosed with hepatitis C should be educated:

- Do not drink alcohol and check with a healthcare provider about all medications including non-prescription medication
- Avoid transmission by cleaning up blood-contaminated material
- Cover cuts and skin lesions
- Do not share blood testing equipment, razors, toothbrushes, or nail clippers
- Do not share needles, syringes, or drug works. Active drug users should be directed to needle exchange programs and drug rehabilitation services
- Use barriers methods correctly every time they have sex
- Do not donate blood or plasma. Any consideration of tissue, organs, or semen donation should be discussed with a healthcare provider.
- Notify healthcare and dental care personnel of their hepatitis C status
- Get vaccinated against hepatitis A and hepatitis B, if susceptible
- Advise susceptible close contact to get hepatitis B vaccine

Thank you.

Washington State Department of HEALTH

Hepatitis C – Positive Laboratory Report

PATIENT INFORMATION

Case name (last, first) _____

Birth date ___/___/___ Sex ☐ F ☐ M ☐ Other Alternate name _____

Phone _____ Email _____

Address type ☐ Home ☐ Mailing ☐ Other ☐ Temporary ☐ Work

Street address _____

City/State/Zip/County _____

Residence type (incl. Homeless) _____ WA resident ☐ Yes ☐ No

Alt. contact ☐ Parent/guardian ☐ Spouse ☐ Other_____ Name: _____

The patient in the attached laboratory report had a positive test for hepatitis C. If the case has not been previously reported from your office, please complete the form below and fax to: _____

ADMINISTRATIVE - LHJ USE

County _____

ID _____

☐ Reported to DOH Date ___/___/___

LHJ Classification ☐ Confirmed ☐ Probable ☐ Suspect ☐ Not a case ☐ State case ☐ Contact ☐ Control ☐ Exposure ☐ Not classified

LHJ notification date: _____

WDRS Event ID: _____

DEMOGRAPHICS

Do you consider yourself (your child) Hispanic, Latino/a, or Latinx?

Ethnicity ☐ Hispanic, Latino/a, Latinx ☐ Non-Hispanic, Latino/a, Latinx ☐ Patient declined to respond ☐ Unknown

What race or races do you consider yourself (your child)? You can be as broad or specific as you'd like (check all responses).

Race ☐ Amer Ind/AK Native (**specify**: ☐ Amer Ind **and/or** ☐ AK Native) ☐ Asian ☐ Black or African American ☐ Native HI/Pacific Islander (**specify**: ☐ Native HI **and/or** ☐ Pacific Islander) ☐ White ☐ Patient declined to respond ☐ Unk

Additional race information:

☐ Afghan ☐ Afro-Caribbean ☐ Arab ☐ Asian Indian ☐ Bamar/Burman/Burmese ☐ Bangladeshi ☐ Bhutanese
☐ Central American ☐ Cham ☐ Chicano/a or Chicanx ☐ Chinese ☐ Congolese ☐ Cuban ☐ Dominican ☐ Egyptian
☐ Eritrean ☐ Ethiopian ☐ Fijian ☐ Filipino ☐ First Nations ☐ Guamanian or Chamorro ☐ Hmong/Mong
☐ Indigenous-Latino/a or Indigenous-Latinx ☐ Indonesian ☐ Iranian ☐ Iraqi ☐ Japanese ☐ Jordanian ☐ Karen
☐ Kenyan ☐ Khmer/Cambodian ☐ Korean ☐ Kuwaiti ☐ Lao ☐ Lebanese ☐ Malaysian ☐ Marshallese ☐ Mestizo
☐ Mexican/Mexican American ☐ Middle Eastern ☐ Mien ☐ Moroccan ☐ Nepalese ☐ North African ☐ Oromo
☐ Pakistani ☐ Puerto Rican ☐ Romanian/Rumanian ☐ Russian ☐ Samoan ☐ Saudi Arabian ☐ Somali
☐ South African ☐ South American ☐ Syrian ☐ Taiwanese ☐ Thai ☐ Tongan ☐ Ugandan ☐ Ukrainian
☐ Vietnamese ☐ Yemeni ☐ Other: _____

What is your (your child's) preferred language (check one):

☐ Amharic ☐ Arabic ☐ Balochi/Baluchi ☐ Burmese ☐ Cantonese ☐ Chinese (unspecified) ☐ Chamorro ☐ Chuukese
☐ Dari ☐ English ☐ Farsi/Persian ☐ Fijian ☐ Filipino/Pilipino ☐ French ☐ German ☐ Hindi ☐ Hmong ☐ Japanese
☐ Karen ☐ Khmer/Cambodian ☐ Kinyarwanda ☐ Korean ☐ Kosraean ☐ Lao ☐ Mandarin ☐ Marshallese ☐ Mixteco
☐ Nepali ☐ Oromo ☐ Panjabi/Punjabi ☐ Pashto ☐ Portuguese ☐ Romanian/Rumanian ☐ Russian ☐ Samoan
☐ Sign languages ☐ Somali ☐ Spanish/Castilian ☐ Swahili/Kiswahili ☐ Tagalog ☐ Tamil ☐ Telugu ☐ Thai ☐ Tigrinya
☐ Ukrainian ☐ Urdu ☐ Vietnamese ☐ Other language: _____ ☐ Patient declined to respond ☐ Unknown

Employed ☐ Yes ☐ No ☐ Unknown

If yes, Occupation _____ Employer/worksite _____ Zip code (occupation) _____

Student (including in daycare) ☐ Yes ☐ No ☐ Unknown

If yes, School/child care _____ Grade _____ Zip code (school) _____

CLINICAL INFORMATION

This report is: ☐ **Acute** hepatitis C ☐ **Chronic** hepatitis C ☐ **Perinatal** hepatitis C ☐ Cannot determine

Reason for current testing (check all that apply): ☐ Acute hepatitis symptoms: vomiting, diarrhea, abd. pain, anorexia, nausea, fever
☐ Jaundice ☐ Asymptomatic with risk factors ☐ Prenatal ☐ Asymptomatic, no risk ☐ Elevated liver enzymes
☐ Follow-up for previous test ☐ Born 1945-1965 ☐ Blood/organ donor ☐ Unk ☐ Other:

Onset date: ___/___/___ ☐ Onset date is estimated Diagnosis date: ___/___/___ Illness duration: _____ days

Known risk factors
[**Acute**: Ask about exposures 180 days to 14 days before symptom onset date. For a case classified as acute via anti-HCV or HCV RNA test conversion, in the absence of clinical criteria, 12 months to 14 days before onset date should be considered.; **Chronic/perinatal:** lifetime]

Y	N	Unk	
☐	☐	☐	Clotting factor (year: _____)
☐	☐	☐	Blood products (year: _____)
☐	☐	☐	Organ transplant (year: _____)
☐	☐	☐	Hemodialysis
☐	☐	☐	In job with potential blood or body fluid exposure
☐	☐	☐	Tattoo
☐	☐	☐	Body piercing (except ears)
☐	☐	☐	Acupuncture
☐	☐	☐	New or risk sexual partner
☐	☐	☐	Perinatal transmission
☐	☐	☐	Close contact with HCV case (type: _____)
☐	☐	☐	Injection drug use
☐	☐	☐	Non-injection drug use
☐	☐	☐	Drug use not prescribed by doctor, route unknown
☐	☐	☐	Incarceration
☐	☐	☐	Other: _____
☐	☐	☐	No risk factors

Y	N	Unk	
☐	☐	☐	Pregnant **If yes,** EDD: __/__/__ Hospital: _____
☐	☐	☐	Diabetes **If yes,** diagnosis date: __/__/__
☐	☐	☐	Ever had liver biopsy
☐	☐	☐	Healthcare provider-diagnosed cirrhosis
☐	☐	☐	Ever diagnosed with liver cancer
☐	☐	☐	Patient has health insurance If **Y** check all that apply: ☐ Medicare ☐ Medicaid ☐ VA / Military ☐ Employer ☐ Individual
☐	☐	☐	Recommended to receive treatment for hepatitis C
☐	☐	☐	Received treatment ☐ Discontinued ☐ Completed

Laboratory

P = Positive NT = Not Tested
N = Negative I = Indeterminate

P	N	NT	I	
☐	☐	☐	☐	**Antibody to hepatitis C virus (anti-HCV)** Signal to cut-off ratio _____ Specimen collection date ___/___/____ Test laboratory _____
☐	☐	☐	☐	**HCV RNA quantitative** _____ Units _____ Specimen collection date ___/___/___ Test laboratory _____
☐	☐	☐	☐	**HCV RNA qualitative** Specimen collection date ___/___/___ Test laboratory _____
☐	☐	☐	☐	**HCV genotype** _____ Specimen collection date ___/___/___ Test laboratory _____

Y	N	Unk	
☐	☐	☐	**Hepatitis C antibody negative results followed by positive result collected within 12 months (test conversion)**

Other tests
(If >1 test in past 3 months, report peak; else give most recent).

Y	N	Unk	
☐	☐	☐	**Serum aminotransferase SGOT [AST] or SGPT [ALT] elevated above normal for labs** ALT (SGPT) Actual value: _____ Date: ____/____/____ AST (SGOT) Actual value: _____ Date: ____/____/____
☐	☐	☐	**Total bilirubin ≥ 3.0 mg/dL** Actual value: _____ Date: ____/____/____

Investigator _____ **Phone/email:** _____ **Investigation complete date** ___/___/___
Record complete date ___/___/___

To request this document in another format, call 1-800-525-0127. Deaf or hard of hearing customers, please call 711 (Washington Relay) or email doh.information@doh.wa.gov.

2020 Case Definition for Hepatitis C Infection

For cases > 36 months of age*

Clinical Criteria

One or more of the following:

- Jaundice, **OR**
- Peak elevated total bilirubin levels ≥ 3.0 mg/dL, **OR**
- Peak elevated serum alanine aminotransferase (ALT) levels >200 IU/L,

AND

The absence of a more likely diagnosis than acute hepatitis C (which may include evidence of acute liver disease due to other causes or advanced liver disease due to pre-existing chronic Hepatitis C virus (HCV) infection or other causes, such as alcohol exposure, other viral hepatitis, hemochromatosis, etc.)

Laboratory Criteria

Confirmatory laboratory evidence:

- Positive hepatitis C virus detection test: Nucleic acid test (NAT) for HCV RNA positive (including qualitative, quantitative, or genotype testing), **OR**
- A positive test indicating presence of hepatitis C viral antigen(s) (HCV antigen)

Presumptive laboratory evidence:

- A positive test for antibodies to hepatitis C virus (anti-HCV)

Case Classification

Acute, confirmed. A case that meets clinical criteria and has confirmatory laboratory evidence **OR** a documented negative HCV antibody followed within 12 months by a positive HCV antibody test (anti-HCV test conversion) in the absence of a more likely diagnosis, **OR** A documented negative HCV antibody **OR** negative hepatitis C virus detection test (in someone without a prior diagnosis of HCV infection) followed within 12 months by a positive hepatitis C virus detection test (HCV RNA test conversion) in the absence of a more likely diagnosis.

Acute, probable. A case that meets clinical criteria and has presumptive laboratory evidence, **AND** does not have a hepatitis C virus detection test reported, **AND** has no documentation of anti-HCV or HCV RNA test conversion within 12 months.

Chronic, confirmed
A case that does not meet clinical criteria or a case that has no report of clinical criteria **AND** does not have test conversion within 12 months or has no report of test conversion **AND** has a positive HCV NAT or HCV antigen test

Chronic, probable
A case that does not meet clinical criteria or has no report of clinical criteria **AND** does not have test conversion within 12 months or has no report of test conversion **AND** has a positive anti-HCV antibody test, but no report of a positive HCV NAT or positive HCV antigen test

* Cases between 2 and 36 months of age should be reported as perinatal cases, unless known to be infected non-perinatally. Test results in infants < 2 months old should not be used for classification.

§ When an individual's lab history indicates presence of antibodies, but all virus detection tests are negative (i.e. a person has only **negative** HCV RNA (NAT) result(s) and one or more **positive** antibody results):

- if the negative RNA test was done 3 months or less *after* their first positive antibody, with no other information to indicate that the person is a case, then the individual should **not** be reported as a Probable chronic hepatitis C case
- if the negative RNA test was done in the same calendar year *before* their first positive antibody, with no other information to indicate that the person is a case, then the individual should **not** be reported as a Probable chronic hepatitis C case

To request this document in another format, call 1-800-525-0127. Deaf or hard of hearing customers, please call 711 (Washington Relay) or email doh.information@doh.wa.gov.

Appendix B: GLOSSARY OF TERMS

Liver Function Testing

ALT/AST: liver enzymes classified as serum aminotransferases or transaminases and are useful indicators of liver damage. Alanine aminotransferase [ALT (SGOT)] is particularly sensitive for assessing liver damage secondary to HCV, compared to aspartate aminotransferase [AST (SGPT)]. The acute hepatitis C case definition includes a criteria of ALT levels over 200 IU/L.

Bilirubin: a waste product made during normal liver function. Elevated levels of bilirubin can cause jaundice. The acute hepatitis C case definition includes a criteria of Total Bilirubin levels greater than or equal to 3.0 mg/dL.

Hepatitis A Virus (HAV) Testing

IgM anti-HAV: IgM antibody to HAV. Indicates acute infection with HAV.

Anti-HAV total: combined antibodies to HAV including IgM (acute) and IgG (long term).

Hepatitis B Virus (HBV) Testing

HBsAg: hepatitis B surface antigen, a marker of replicating virus. It occurs in acute and chronic but not resolved infections. Its presence indicates that the patient is considered to be infectious.

Anti-HBs: hepatitis B surface antibody. It shows immunity through infection or vaccination.

IgM Anti-HBc: IgM antibody to hepatitis B core antigen, indicative of recent HBV infection.

Anti-HBc: total antibody to hepatitis B core antigen. Becomes positive at the onset of illness and persists for life so does not distinguish among recent, past, or chronic infection.

HBeAg: hepatitis B e antigen, a core protein from infected liver cells and marker of high infectivity. Similar to HBsAg, it occurs in acute infection and may persist in chronic infections.

HBeAb: hepatitis B e antibody is produced during acute HBV infection and may persist in chronic infections. Conversion from e antigen to e antibody predicts long-term clearance of HBV in patients receiving antiviral therapy and indicates lower levels of HBV. Chronic HBsAg cases can be positive for either HBeAg or anti-HBe, but are less infectious if anti-HBe is present.

Hepatitis B virus DNA: signifies active replication of the virus and infectivity. It is usually done to test for chronic infection, and viral load may be used to decide whether treatment is warranted.

Hepatitis C Virus (HCV) Testing

Anti-HCV EIA: enzyme immunoassay for HCV antibody. Indicates presence of antibody only, not distinguishing acute and chronic infections.

HCV Rapid Antibody Test (anti-HCV): OraQuick® HCV Rapid Antibody Test allows point-of-care testing for HCV antibody using fingerstick or venipuncture whole blood, with test performance comparable to other FDA-approved, lab-conducted antibody assays.

PCR: polymerase chain reaction, measures HCV RNA and indicates active viral replication. The qualitative PCR is more sensitive and is preferred for initial testing. Quantitative PCR is often used to guide treatment decisions and to follow progress of treatment.

HCV genotype: HCV has at least 6 different genotypes. Genotype 1 is the most common in the United States (70–75% of infections). A positive genotype indicates the presence of HCV RNA.