

Signs and Symptoms	<ul style="list-style-type: none"> • 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: usually 4-12 weeks (range 2 weeks – 6 months)
Case classification	<p>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.)</p> <p>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. <i>No single test currently distinguishes acute from chronic infection.</i></p>
Differential diagnosis	Hepatitis A or B, chemical hepatitis, autoimmune hepatitis, biliary disease, malignancy, metabolic disease
Treatment	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	<p>LHJ and Office of Infectious Disease (OID) arrange testing if suspected cluster.</p> <ul style="list-style-type: none"> • Washington State Public Health Laboratories will hold specimen or forward to CDC • Best specimen: Acute serum, spun down and frozen immediately • <i>Specimen shipping (Section 4):</i> Keep specimens frozen, ship with serology/virology form: http://www.doh.wa.gov/Portals/1/Documents/5230/302-017-SerVirHIV.pdf
Public health actions	<p>If report is consistent with Acute hepatitis C:</p> <ul style="list-style-type: none"> • Determine if reported previously by searching in Washington Disease Reporting System (WDRS) • Interview acute case for exposures, particularly bloodborne and health care exposures • Report suspected health care-risk to DOH Office of Infectious Disease; collect and freeze serum if one case, test if cluster • Acute case should 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 • Enter case into WDRS using the “Acute HCV” wizard <p>If report is consistent with Chronic hepatitis C:</p> <ul style="list-style-type: none"> • 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 • If suspected healthcare-associated case see steps under Acute hepatitis C • Educate case in the same way as acute cases • Enter case into WDRS using one of the chronic HCV wizards <p>If report is consistent with Perinatal hepatitis C:</p> <ul style="list-style-type: none"> • 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 <p>If positive laboratory report only:</p> <ul style="list-style-type: none"> • 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. • If new case is not prioritized, enter in WDRS with the “HCV - Lab Surveillance Only” wizard <p><i>Infection Control:</i> If HCV RNA positive, standard precautions in healthcare settings.</p>

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 of hepatitis C virus infection and the burden of morbidity from chronic infection.

B. Legal Reporting Requirements

1. Acute Hepatitis C (initial diagnosis only)

- a. Health care providers: notifiable to local health jurisdiction within 3 business days
- b. Health care facilities: notifiable to local health jurisdiction within 3 business days
- c. Laboratories: hepatitis C virus (detection of viral antigen, antibody or nucleic acid) notifiable monthly. Specimen submission is on request only in outbreak settings
- d. 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: notifiable to local health jurisdiction within one month
- b. Health care facilities: notifiable to local health jurisdiction within one month
- c. Laboratories: Hepatitis C virus (detection of viral antigen, antibody or nucleic acid) notifiable to local health jurisdiction of patient residence (or ordering health care provider, if patient residence is unknown) on a monthly basis.
- d. 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: notifiable to local health jurisdiction within one month
- b. Health care facilities: notifiable to local health jurisdiction within one month
- c. Laboratories: Hepatitis C virus (detection of viral antigen, antibody or nucleic acid) notifiable on a monthly basis

- d. 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 subtype is acute, chronic or perinatal hepatitis C (Section 5). If subtype cannot be determined, 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.
 - e. Educate the case about hepatitis C and how to reduce the risk of transmission.
 2. Case identified as Chronic hepatitis C
 - a. Determine if the reported patient was previously reported in WDRS. If previously reported as an acute case and now a chronic case, update the Administrative question package in WDRS with the new subtype of chronic and complete data entry for the chronic event. If previously reported as a chronic hepatitis C case in WDRS, update as needed.
 - 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 the “Hepatitis C – Chronic, short” form (<https://www.doh.wa.gov/Portals/1/Documents/Pubs/150-050-ReportForm-HepC-Chronic-Short.pdf>). Enter the data into WDRS using the “Chronic HCV – short form” wizard to capture any known risk factors, skipping any information not available. If additional information is available and the data are not captured in a wizard, enter it in the individual question packages. If the investigator is unable to complete the short form, attempt to obtain data listed in the “Chronic HCV – minimum required fields” wizard.
 - d. Inform the case of treatment options and ways to minimize disease progression.
 - e. Educate the case about hepatitis C and how to reduce the risk of transmission.
 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.
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: 1) new positive RNA results following at least two negative RNA results from specimens collected least 12 weeks apart and 2) 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). 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 DOH 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 doh.wa.gov/WDRSHepatitis for resources related to the hepatitis model in WDRS.

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

In Washington, an average of 68 acute hepatitis C were reported annually from 2010 to 2018. In that time, there was a four-fold increase in the rate of acute cases (0.4 cases per 100,000 residents in 2010 and 1.6 cases per 100,000 in 2018), likely reflecting an increase in incidence parallel to the rise in injection drug use associated with the opioid epidemic. An average of 6,461 new cases of chronic hepatitis C were reported to DOH annually from 2010 to 2018.

D. Reservoir

Human beings with acute or chronic infections are the reservoir. Persons with chronic infections are probably the most important sources of transmission because they are infectious for many years, compared to a few weeks for resolved acute infections.

E. Modes of Transmission See: <http://www.cdc.gov/hepatitis/hcv/cfaq.htm>

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 4–12 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 obtain expert advice 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.

Resources:

- <http://www.fda.gov/forpatients/illness/hepatitisbc/ucm408658.htm>
- <http://hcvguidelines.org/>

- <http://www.cdc.gov/hepatitis/HCV/HCVfaq.htm>

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 from 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 from 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) 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 (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 antibody may persist, so antibody testing should be interpreted with caution in infants under one year.

Appendix B is a glossary of hepatitis test terms. For information about interpreting laboratory tests for HCV, see table below and: http://www.cdc.gov/hepatitis/HCV/PDFs/hcv_graph.pdf

Interpretation of Results for Tests of Hepatitis C Virus (HCV), for acute and chronic cases	Either jaundice <u>OR</u> ALT > 200 IU/L <u>OR</u> bilirubin >= 3.0 mg/dL <u>AND</u> the absence of a more likely diagnosis than acute hepatitis C.	
	Absent	Present
Any HCV nucleic acid test positive <u>OR</u> HCV antigen positive <u>OR</u> 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 <u>OR</u> 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 from 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

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 with PHL Virology form: <http://www.doh.wa.gov/Portals/1/Documents/5230/302-017-SerVirHIV.pdf>. 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 and chronic infections. If status as acute or chronic hepatitis C is unknown for a report of a positive laboratory test, the "Hepatitis C – Positive Laboratory Report" form (Appendix A) 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 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 \geq 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 or chronic 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 DOH OID 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 cases of the same subtype, update any newly available descriptive (e.g., demographics, address), clinical, or laboratory data. Determine if classification has changed (e.g., *Probable* to *Confirmed*).
- 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. Select the subtype acute hepatitis C in the Administrative section.

- 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 as appropriate for specialist evaluation for treatment, which may prevent chronic infection.
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), 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. For a newly diagnosed chronic case, select the subtype chronic hepatitis C in the Administrative section and complete data entry for the chronic event.
3. Cases determined to be **perinatal hepatitis C**:
- a. Determine if the patient was previously reported in WDRS. For previously reported cases of the same subtype, update any newly available descriptive (e.g., demographics, address), clinical, or laboratory data. Determine if classification has changed (e.g., *Probable* to *Confirmed*).

- 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. Select the subtype perinatal hepatitis C in the Administrative section.
- 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 the subtype cannot be determined, 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:

- **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. 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 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” wizard.

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 that may reduce ongoing transmission while fostering access to care for management of hepatitis and promotion of

overall health. 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 with chronic hepatitis C infection with information about how to protect and promote liver health as well as overall health, and to prevent transmission to others. 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. Provide or direct cases to resources including the Hepatitis Education Project (<http://hepeducation.org/>) and CDC ([CDC DVH - Hepatitis C - Patient Education Resources](#)).

B. Identify the Source of Infection

For acute infections and any infection suspected to have been infected through a medical, dental or commercial (e.g., tattoo) procedure, collect details about possible exposures, including high risk behaviors. For acute cases, collect exposure and risk information during the 14 – 180 days before the onset of illness with particular emphasis on the 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.

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 date 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.
- Other potential blood exposures, including tattooing, piercing, or acupuncture.

- Accidental exposure of skin, eyes, mucous membranes, or a wound to blood of another person.
- High-risk sexual contact (multiple partners, history of other STDs, anal sex, etc.)

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 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 6A).
3. Identify sexual or needle-sharing contacts and others who have had direct (percutaneous or mucosal) exposure to blood.

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 injection drug users, as well as HIV-seropositive men engaging in unprotected sex with multiple male partners. Otherwise, routine screening is not recommended for household (nonsexual) contacts of HCV-infected persons. Active injection drug users should be directed to needle exchange programs and drug rehabilitation services. 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. Chronically infected persons should ensure that surfaces and objects contaminated with blood are properly cleaned using appropriate disinfectant solutions.

E. Controlling Further Spread

1. 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.
2. Hospitalized patients with hepatitis C virus (HCV) infection should be cared for using standard precautions.
3. Work, Residential or Child Care Restrictions: No occupational, school, or child care restrictions are necessary for HCV-infected individuals. 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.

4. 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.
 - Susceptible household and sexual contacts should be advised to obtain a full hepatitis B vaccination series to prevent dual infection.
 - Surfaces contaminated by blood should be cleaned and properly disinfected.
 - Cuts and skin lesions should be kept covered.
 - Infected persons should not share items potentially contaminated with blood (e.g., blood testing equipment, razors, toothbrushes, or nail clippers).
 - Active injection drug users should be directed to needle exchange programs and chemical dependency services. Harm Reduction Coalition provides a list of sites offering services in Washington State (<http://harmreduction.org/connect-locally/washington/>). People infected with HCV should not share needles, syringes, or drug works with other people. Information for persons who inject drugs (PWID) without access to sterile needles and syringes may be found at the following link <http://www.cdc.gov/hiv/risk/idu.html>.
 - The risk of sexual transmission is low but not absent. HCV-infected persons should use barriers methods correctly every time they have sex.
 - Infected persons should not donate blood, plasma, tissues, organs or semen.
 - HCV RNA-positive persons who seek medical or dental care should notify involved personnel of their hepatitis C status.
5. Persons with acute hepatitis C should seek guidance on treatment options and linkage to care. Cases should have a repeat test for HCV RNA six months after the first. Those who continue to be HCV RNA-positive are considered to have confirmed chronic infections, and should be counseled accordingly. Maternal antibody may persist in a newborn so antibody testing should be interpreted with caution in infants for at least a year.
6. Educate persons with chronic HCV infections to protect their livers from further harm:
 - Seek a provider who has experience managing chronic HCV infections and is able to assist with establishing linkage to care.
 - Ask their provider about use of over-the-counter drugs (e.g., acetaminophen) that can damage the liver.
 - Stop behaviors that could result in transmission of hepatitis C virus.
 - Avoid alcohol.
 - 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 parenteral exposure is real (approximately 2%) and although post-exposure prophylaxis is not

routinely recommended, options may be changing. Providers should consult with <http://nccc.ucsf.edu/>. Current CDC guidelines recommend an antibody test for HCV and an ALT level at both baseline and at 6 months for potential seroconversion. PCR testing for HCV may be done at 4–6 weeks. Risk for HIV and hepatitis B virus should also be assessed using current CDC guidelines. Department of Labor & Industry rules apply for occupational exposures.

Centers for Disease Control and Prevention maintains resources for post-exposure prophylaxis: <https://www.cdc.gov/niosh/topics/bbp/guidelines.html>

B. Case is a Health Care Worker

If the case is a dentist, physician, nurse, or other health care worker with potential for exposing patients by blood or other body fluids:

1. The person should be discouraged from working until the acute clinical illness has resolved.
2. Upon return to work, special precautions should be practiced until the worker is no longer infectious, including:
 - 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 infected blood;
 - Careful and frequent hand washing.
3. Chronically infected health care workers should be encouraged to voluntarily seek confidential counseling from employee health services regarding risk reduction strategies; evaluation would include a review of their practice by an expert panel.

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

If two or more possible iatrogenic cases occur 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 Office of Communicable Disease Epidemiology (206-418-5500). 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:

<http://www.cdc.gov/injectionsafety/pntoolkit/index.html>

If one case underwent a medical or dental procedure or has diabetes testing in a long term 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 an additional case is identified with a potential shared medical or dental exposure. Contact the Office of Infectious Disease for instructions (hepatitis@doh.wa.gov). There are CDC resources available to investigate a single case 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. 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 chemical dependency 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.
- If you are hepatitis C positive, do not donate blood, organs, or tissue

C. Identifying and Testing Persons at Risk for Chronic Infection

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

- Were born from 1945 through 1965
- Currently inject illegal drugs or ever injected illegal 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 women
- 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 chronic hepatitis C should receive counseling and referral for medical follow-up: <http://www.cdc.gov/hepatitis/HCV/Management.htm>

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.

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 civil.rights@doh.wa.gov.

Appendix A: SAMPLE FAX FOR POSITIVE LABORATORY REPORT

A two-page fax form (<https://www.doh.wa.gov/Portals/1/Documents/pubs/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 (360-236-3455) 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, plasma, tissues, organs or semen
- 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.

 <p>Hepatitis C – Positive Laboratory Report</p>	<p>County: _____</p> <p>LHJ Use ID _____ <input type="checkbox"/> Reported to DOH Date ____/____/____</p> <p>LHJ Classification <input type="checkbox"/> Confirmed <input type="checkbox"/> Probable</p> <p>LHJ notification date: _____ Maven ID: _____</p>
<p>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: _____</p>	
PATIENT INFORMATION	
<p>Name (last, first) _____</p> <p>Address _____ <input type="checkbox"/> Homeless</p> <p>City/State/Zip _____</p> <p>Phone(s)/Email _____</p> <p>Alt. contact <input type="checkbox"/> Parent/guardian <input type="checkbox"/> Spouse <input type="checkbox"/> Other Name: _____</p> <p>Zip code (school or occupation): _____ Phone: _____</p> <p>Occupation/grade _____</p> <p>Employer/worksite _____ School/child care name _____</p>	<p>Birth date ____/____/____ Age _____</p> <p>Gender <input type="checkbox"/> F <input type="checkbox"/> M <input type="checkbox"/> Other <input type="checkbox"/> Unk</p> <p>Ethnicity <input type="checkbox"/> Hispanic or Latino <input type="checkbox"/> Not Hispanic or Latino <input type="checkbox"/> Unk</p> <p>Race (check all that apply)</p> <p><input type="checkbox"/> Amer Ind/AK Native <input type="checkbox"/> Asian <input type="checkbox"/> Native HI/other PI <input type="checkbox"/> Black/Afr Amer <input type="checkbox"/> White <input type="checkbox"/> Other _____ <input type="checkbox"/> Unk</p>
CLINICAL INFORMATION	
<p>This report is: <input type="checkbox"/> Acute hepatitis C <input type="checkbox"/> Chronic hepatitis C <input type="checkbox"/> Perinatal hepatitis C <input type="checkbox"/> Cannot determine</p> <p>Reason for current testing (check all that apply): <input type="checkbox"/> Acute hepatitis symptoms: vomiting, diarrhea, abd. pain, anorexia, nausea, fever <input type="checkbox"/> Jaundice <input type="checkbox"/> Asymptomatic with risk factors <input type="checkbox"/> Prenatal <input type="checkbox"/> Asymptomatic, no risk <input type="checkbox"/> Elevated liver enzymes <input type="checkbox"/> Follow-up for previous test <input type="checkbox"/> Born 1945-1985 <input type="checkbox"/> Blood/organ donor <input type="checkbox"/> Unk <input type="checkbox"/> Other: _____</p> <p>Onset date: ____/____/____ <input type="checkbox"/> Onset date is estimated Diagnosis date: ____/____/____ Illness duration: ____ days</p>	
<p>Known risk factors [Acute: within 6 months; Chronic/perinatal: lifetime] Y N Unk</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Clotting factor (year: _____)</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Blood products (year: _____)</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Organ transplant (year: _____)</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Hemodialysis</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> In job with potential blood or body fluid exposure</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Tattoo</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Body piercing (except ears)</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Acupuncture</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> New or risk sexual partner</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Perinatal transmission</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Close contact with HCV case (type: _____)</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Injection drug use</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Incarceration</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Other: _____</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> No risk factors</p> <p>Y N Unk</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Pregnant If yes, EDD: ____/____/____. Hospital: _____</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Diabetes If yes, diagnosis date: ____/____/____.</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Ever had liver biopsy</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Healthcare provider-diagnosed cirrhosis</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Ever diagnosed with liver cancer</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Patient has health insurance If Y check all that apply: <input type="checkbox"/> Medicare <input type="checkbox"/> Medicaid <input type="checkbox"/> VA / Military <input type="checkbox"/> Employer <input type="checkbox"/> Individual</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Recommended to receive treatment for hepatitis C</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Received treatment <input type="checkbox"/> Discontinued <input type="checkbox"/> Completed</p>	<p>Laboratory</p> <p>P N NT I P = Positive NT = Not Tested N = Negative I = Indeterminate</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Antibody to hepatitis C virus (anti-HCV) Signal to cut-off ratio _____ Specimen collection date ____/____/____ Test laboratory _____</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> HCV RNA quantitative _____ Units _____ Specimen collection date ____/____/____ Test laboratory _____</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> HCV RNA qualitative _____ Specimen collection date ____/____/____ Test laboratory _____</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> HCV genotype _____ Specimen collection date ____/____/____ Test laboratory _____</p> <p><input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> Unk Hepatitis C antibody negative results followed by positive result collected within 12 months (test conversion)</p> <p><u>Other tests</u> (If >1 test in past 3 months, report peak; else give most recent).</p> <p><input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> Unk Serum aminotransferase (SGOT [AST] or SGPT [ALT] elevated above normal for lab ALT (SGPT) Actual value: _____ Date ____/____/____ AST (SGOT) Actual value: _____ Date ____/____/____</p> <p><input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> Unk Total bilirubin ≥ 3.0 mg/dL Actual value: _____ Date ____/____/____</p>
<p>Investigator _____ Phone/email: _____</p> <p>Investigation complete date ____/____/____ Record complete date ____/____/____</p>	

Y = Yes, N = No, Unk = Unknown

DOH 210-032 February 2020

Washington State Department of Health

2020 Case Definitions 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:

- 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) (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 followed within 12 months by a positive hepatitis C virus detection test (test conversion) in the absence of a more likely diagnosis OR a documented 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 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 from 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 civil.rights@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.