Hepatitis C
Investigative Guidelines
February 2025

*REPORT ACUTE CASES WITHIN **1** WORKING DAY*

1. DISEASE REPORTING

1.1 Purpose of Reporting and Surveillance

1. To identify outbreaks and potential sources or sites (e.g. from contaminated reuse of multi-dose vials in the healthcare setting) of ongoing transmission
2. To assess the risk of transmission to additional persons, and to prevent such transmission
3. To educate people about how to reduce risk of Hepatitis C (HCV) infection
4. To identify additional cases of HCV
5. To better characterize the epidemiology of this infection including social, environmental, and behavioral contexts for transmission
6. To identify communities and populations at elevated risk for disease or severe illness and inform equity-centered outreach, in support of OHA's strategic goal of eliminating health inequities in Oregon by 2030

1.2 Laboratory and Clinician Reporting Requirements

1. All diagnoses of acute hepatitis C are reportable by physicians to the Local Health Department (LHD) within one working day of diagnosis.
2. All positive laboratory tests for HCV must be reported by licensed laboratories to the LHD within one working day.

1.3 Local Health Department Reporting and Follow-Up Responsibilities

Acute Cases

1. Currently there is no test (like an IgM) that is specific for recent infection; so, it is impossible to distinguish between recently and distantly acquired

infections based on laboratory results, and our case definition for acute infections relies on clinical criteria. Physicians are required to report all acute cases of HCV to the LHD; therefore, LHDs should investigate all reports from clinicians to ascertain whether the patient meets the case definition for acute illness.

2. Report all confirmed and presumptive (but not suspect) cases (see definitions below) to the Oregon Public Health Division (PHD) Acute and Communicable Disease Prevention (ACDP) Section by 5pm of the working day following initial physician or lab report.
3. Enter information into Orpheus as the investigation occurs and submit all required case data electronically including REALD and SOGI if available.
4. Interview all confirmed and presumptive cases. If unable to reach a case, medical records need to be requested and risk factors and clinical information should be entered in Orpheus.
5. Verify the pregnancy status of investigated cases between the ages of 15-44.
6. All outbreaks should be reported within one working day, complete investigation in conjunction with the assigned Acute and Communicable Disease Prevention (ACDP) epidemiologist and submit the outbreak summary report within 30 business day of last case onset.

Chronic Cases

1. LHD are not required to investigate chronic HCV cases; therefore, if LHD receives a positive anti-HCV or positive RNA report for HCV from a laboratory only with no clinical criteria, the LHD will not conduct any further investigation, but shall electronically transmit and enter all patients' information on the laboratory report into Orpheus, including REALD and SOGI if available.
2. Report all confirmed and presumptive (but not suspect) cases (see definitions below) to the Oregon Public Health Division (PHD) Acute and Communicable Disease Prevention (ACDP) Section within 7 days of initial report.

1.5 Following up on Perinatal Cases

Report all confirmed cases to the Oregon Public Health Division (PHD) Acute and Communicable Disease Prevention (ACDP) Section by the end of the calendar week following initial clinician or lab report. Enter information into Orpheus as the investigation occurs. See *§3* for case definitions.

2. THE DISEASE AND ITS EPIDEMIOLOGY

2.1 Etiologic Agent

The etiologic agent of hepatitis C is a flavivirus (same family as the yellow fever virus) unrelated to the viruses that cause hepatitis A or B. Specific tests

for the hepatitis C virus (HCV) first became available in 1990, although the existence of the virus was inferred for many years. Scientific research is constantly expanding the understanding of the virus. As of 2019, 8 genotypes had been identified along with 86 subtypes[1] (named by appending a letter to the genotype name, e.g.1a).

2.2 Description of Illness

Clinically, it can be difficult to distinguish between hepatitis C and other viral hepatitis infections.

Onset of symptoms is usually gradual, with fever, malaise, anorexia, nausea, and abdominal discomfort, followed by jaundice for most patients. Urine may become unusually dark, and stools quite pale. Infections vary from completely asymptomatic (~80% of infections) to a disabling illness lasting several months. Even though, fulminant hepatitis is rare, it can be fatal. In many cases, liver enzyme levels are 5-20x upper limit of normal, usually >7x the upper limit of normal.[2]

Approximately, 55-85% of infected individuals develop chronic infection,[3] and 5%–25% of people with chronic hepatitis C will develop cirrhosis over 10–20 years. In turn, people with hepatitis C and cirrhosis have a 1%–4% annual risk for hepatocellular carcinoma.[2] These are the same long-term sequelae linked to hepatitis B infection. The risk of these sequelae increases for patients chronically infected with both HBV and HCV. Patients with signs of chronic liver disease due to HCV are also at an increased risk of fulminant hepatic failure should they acquire hepatitis A. Antibodies develop after infection but are not protective.

The course of the disease varies across genotypes. For example, people with genotype 1 are more likely to clear the virus on their own without treatment, whereas genotype 3 are more likely to develop fatty damage to their liver. People with genotypes 1, 2, and 3 have similar rates of cirrhosis, liver cancer, and liver failure.

2.3 Reservoirs

Human beings are the reservoir for hepatitis C. There are variations in the distribution of HCV genotypes across age, race, and geography.[5] Genotypes 1 and 3 are common worldwide, and the largest proportion of genotypes 4 and 5 is in lower-income countries.[6] About 75% of the people with HCV in the US have either genotype 1a or 1b. Between 10-20% of people with HCV in the US have either genotype 2 or 3.

2.4 Sources and Routes of Transmission

HCV is transmitted through exposure to infected blood on drug paraphernalia (needle-sharing), medical equipment (during blood transfusion) etc., or during the birth of a child by an infected parent (vertical transmission). Shedding of

HCV has also been identified in semen and in the rectum, but risk of sexual transmission is low.[7]

Injection drug use drives new cases of HCV in the US, and incidence is increasing.

Healthcare workers can be exposed to HCV through needlestick injuries; however, seroconversion after a needlestick is not common. Estimates of the likelihood vary, but a 2017 cohort study in a US medical study found a 0.1% rate of seroconversion after a percutaneous occupational exposure to the blood of HCV-positive patients.[8]

Tattooing without appropriate precautions can spread HCV.[9] This can occur through reused needles or reused ink, since the blood of a tattoo recipient is mixed into the ink reservoir when the tattooer refills the needle/tattoo gun. Piercing or bloodletting and other traditional medicine practices that involve parenteral contact with blood can also be a means for transmission; this includes religious and cultural traditions such as circumcision and scarification if they are performed with unsterilized implements. Blood transfusion and other medical procedures were a major means of transmission until screening procedures became available in the 1990s.

Vertical transmission can be either intrauterine (during gestation) or partum (during delivery) but is considered rare unless the gestational parent is co-infected with HIV. Transmission is associated with high HCV serum viral load ($> 10^6$ copies per milliliter) in the gestational parent, as well as with prolonged or difficult delivery and invasive fetal monitoring during delivery.[10] Approximately 6% of infants birthed by gestational parents with HCV will become infected with HCV;[11] it is estimated that 3-5% of infants birthed by gestational parents with HCV will end up with chronic HCV themselves.[7]

Sexual transmission is possible, but the efficiency of transmission is much lower for HCV than for most sexually transmitted infections (STIs). For example, a study of people in long-term monogamous (≥ 36 months) heterosexual partnerships where at least one partner had HCV—but neither partner had HIV or hepatitis B and where no more than one partner had a history of injection drug use—found that the maximal incidence of new HCV infection due to sexual contact was 7.2 per 10,000 person-years (95% CI: 1.3-13.0), and maximal risk per instance of sexual contact was 1 per 380 000 (95% CI: 1/600 000 through 1/280 000). The same study also found no evidence of differential risk of transmission during vaginal intercourse vs. anal intercourse or intercourse during menses—the latter activities were potentially considered to create a higher risk of transmission.[12]

Household transmission (e.g. Via sharing toothbrushes or razors) is rare, and breastmilk does not carry HCV. However, it is recommended that people with

HCV who breastfeed children switch to bottle feeding during times when their nipples are cracked and bleeding.[7]

It is also important to point out that Hepatitis C virus might survive and remain outside the body for up to 6 weeks. Transmission could occur by sharing a living space if a person infected with hepatitis C spills a drop of blood in a commonly use surface, and surface is not properly disinfected.[22]

2.5 Risk Dynamics

Any person can be infected with hepatitis C. However, people in certain life stages, with pre-existing health conditions, or who engage in certain behaviors may be at greater risk of infection, severe disease, or becoming chronically infected with HCV. Because acute HCV infection is often asymptomatic and even symptomatic people may not seek care, case counts and incidence rates should be interpreted with caution. CDC suggests that there are almost 14 times more cases as are reported each year.[23]

Other Risk Considerations:

- People who received transfusions of blood products—particularly clotting products—in the US prior to 1987 are at elevated risk since the blood supply was not screened prior to this date. HCV prevalence in older Americans is highly influenced by these iatrogenic exposures. Other countries may have started screening their blood supply later, meaning that their population may see transfusion-related cases in a wider age range. People who have received hemodialysis over many years are also at risk.

- HCV infection disproportionately affects individuals in correctional institutions, where the prevalence of infection ranges from 17-23%, far exceeding the 1.0% prevalence in the general population.[7] While injecting drugs and tattooing are common in prisons,[13] these activities are not condoned and clean needles are therefore unavailable.[14] Incarcerated people may also come into contact with other people's blood as a result of physical violence in jails and prisons.

- Because Black, African American (U.S. born), American Indian and Alaskan Native as well as persons with disabilities and people with a history of living in poverty are disproportionately incarcerated, HCV risk and morbidity is elevated in these communities and populations.

- People who inject drugs (PWID) are at high risk of contracting HCV. While it is possible to prevent HCV infection by using a new needle for each injection, access to needles and safe injection environments is difficult in many contexts, and the effects of intoxication and withdrawal can make it difficult for people to employ safe injection practices. Furthermore, since person who use drugs are commonly imprisoned, their risk of infection increases when they enter the correctional setting where HCV is prevalent but safe injection

supplies—and widespread substance use disorder treatment—are unavailable.

- Men who have sex with men (MSM), particularly those who are living with HIV (LWH), have long been at increased risk for HCV infection. The drivers of this elevated risk have not been fully elucidated, but some behaviors and cultural practices in the gay male community have been associated with increased incidence among MSMLWH: group sex practices that can cause trauma to rectal mucosal tissue (e.g. Receptive anal intercourse without a condom, receptive fisting) and the use of "party drugs" before and during sex. Transmission is also higher among MSMLWH who already have ulcerative and rectal sexually transmitted infections including syphilis, lymphogranuloma venereum, and genital herpes.[7]

- Certain groups could be at higher risk of tattooing-related HCV infection. Tattooing is an essential heritage practice for many cultural groups and if there are no ideal sanitary practices implemented while tattooing; this increases the risk of infections, including HCV.[15] It is imperative that epidemiologists work with respect and humility to support communities that conduct spiritual and culturally significant practices like Samoan *tatau* and other Pasifika[i] tattooing in a way that balances hygienic priorities with heritage practices that may seem at odds with each other. Traditional tattooing practices are also reemerging among Salish Sea peoples such as the Tlingit and Haida communities,[16] and Indigenous tattooing is being rediscovered throughout the land that is today called North America.[17] Public health practitioners should be supportive allies in this health-affirming process of cultural preservation.[18] Other cultural practices that could entail HCV risk are circumcision (e.g. the Jewish tradition of *brit milah*/*bris*) and scarification—if they are performed without sterilized equipment.

2.6 Incubation Period

The incubation period for HCV ranges between 2 weeks and 6 months, though 6-9 weeks is most common.

2.7 Period of Communicability

The period of communicability begins a week before the onset of symptoms and can continue indefinitely in chronically infected persons.

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[i] Pasifika is an umbrella term for peoples and cultures of the Pacific Ocean, including Polynesian, Micronesian, and Melanesia people; the use of this term increases the visibility of Pacific Islander and Native Hawaiian people by distinguishing them the from the larger Asian American population in the US.

2.8 Treatment

Hepatitis C is now considered a curable condition.

New fixed-dose co-formulations of direct-acting antivirals have allowed simpler regimens with shorter treatment durations, less bothersome side effects, and low rates of discontinuation. A patient's treatment is determined based on their HCV genotype, viral load, extent of cirrhosis, and prior treatment history.[19]However, a simplified treatment algorithm for treatment-naïve people with HCV has been developed as part of the larger standard of care promulgated by the American Association for the Study of Liver Diseases in partnership with the Infectious Disease Society of America, available at http://www.hcvguidelines.org. As of 2023, these involved prescribing one of two treatment regimens:

- Glecaprevir (300 mg) / pibrentasvir (120 mg) to be taken with food for a duration of 8 weeks.
- Sofosbuvir (400 mg) / velpatasvir (100 mg) for a duration of 12 weeks.

CDC.[20] recommends that people who are diagnosed with hepatitis C be provided:

- Medical evaluation for chronic liver disease by either a primary-care clinician or specialist (e.g. in hepatology, gastroenterology, or infectious disease).
- Hepatitis A and hepatitis B vaccination.
- Screening and brief intervention for alcohol consumption; and
- HIV risk assessment and testing.

3. CASE DEFINITIONS, DIAGNOSIS, AND LABORATORY SERVICES

3.1 Confirmed Acute Case

An individual (> 36 months of age) with:

1. A positive nucleic acid test (NAT) for HCV RNA (including qualitative, quantitative or genotype testing) or a positive HCV core antigen test**, and**
    - Jaundice, or
    - a peak elevated serum alanine aminotransferase (ALT) level >200 IU/L, or
    - peak elevated total bilirubin levels ≥ 3.0 mg/dL, **OR**
2. 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**
3. A documented negative HCV antibody **OR** negative HCV RNA 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.

3.2 Presumptive Acute Case Definition

An individual (> 36 months of age) with:

- Jaundice **or** a peak elevated serum alanine aminotransferase (ALT) level >200 IU/L **or** peak elevated total bilirubin levels ≥ 3.0 mg/dL; **AND**
- A positive anti-HCV antibody result; **AND**
- No evidence of anti-HCV or HCV RNA test conversion.

(*a new presumptive acute case may be reclassified as a confirmed acute case is a positive HCV viral detection test is reported in the same reporting year)

3.3 Confirmed Chronic Case Definition

An individual (> 36 months of age) with the following four conditions:

1. A positive nucleic acid test (NAT) for HCV RNA (including qualitative, quantitative or genotype testing) **OR** a positive HCV antigen test; **AND**
2. No evidence of anti-HCV or RNA test conversion within 12 months; **AND**
3. No report of jaundice, elevated bilirubin, or elevated ALT levels (≥200); **AND**
4. No evidence of being an acute case of HCV infection. **

(** A confirmed acute case may become a confirmed chronic case if a positive HCV RNA test is reported one year or longer after acute case onset. Please create new chronic case in orpheus.)

3.4 Presumptive Chronic Case Definition

An individual (> 36 months of age) with the following four conditions:

1. A positive anti-HCV antibody test (includes rapid tests) but no report of a positive HCV RNA NAT test; **AND**
2. No evidence of anti-HCV or RNA test conversion within 12 months; **AND**
3. No report of jaundice, elevated bilirubin, or elevated ALT levels (≥200); **AND**
4. No evidence of being an acute case of HCV infection **

(**A confirmed acute case may not be reported as a presumptive chronic case)

3.5 No Cases

Cases with a positive anti-HCV result followed by a negative HCV NAT test within 12 months are not considered chronically infected and should be marked as no cases.

3.6 Perinatal HCV Case Definition

Any infant ≥2 months and ≤36 months of age with a positive HCV NAT test, detectable HCV genotype or HCV antigen test and is not known to have been exposed to HCV via a mechanism other than perinatal.

3.7 Pregnant Persons and infants with positive results

Any pregnant person testing positive for antibodies to HCV should receive a PCR test for HCV RNA to determine current infection status. Children born to HCV-infected mothers should be tested for HCV; HCV RNA testing can occur as early as 2 months of age, whereas testing for HCV antibodies (anti-HCV) should not occur before 18 months of age because antibodies to HCV from the mother might last until this age.

Table. Quick Reference Guide for Case Classification

Test Result	**Discrete onset of symptoms[¶] AND jaundice, ALT > 200 IU/L,** OR bilirubin >3.0 mg/dL?	
	Yes	**No or Unknown**
HCV antibody (anti-HCV) positive** ONLY	Acute, presumptive	Chronic, presumptive
Any HCV Nucleic Acid Test[§] or antigen positive	Acute, confirmed	Chronic, confirmed

**Any antibody result, regardless of signal-to-cutoff ratio; includes rapid tests.
[§] Nucleic acid tests for HCV include: Quantitative HCV RNA tests, qualitative HCV RNA tests, and HCV genotype tests.
[¶] If a case has 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, symptoms are not required. Classify these as acute, confirmed cases.

3.8 Criteria to Distinguish a New Case of Acute or Chronic Hepatitis C from Reports or Notifications which Should Not be Enumerated as a New Case for Surveillance

1. A case of HCV infection classified as Perinatal HCV can be additionally enumerated as a case of chronic HCV infection if a positive HCV viral detection test (HCV antibody, HCV RNA, or Genotyping) is obtained after the case is greater than 36 months of age.
2. An acute case of HCV infection may be additionally enumerated as a new chronic case of HCV infection if a positive HCV viral detection test is reported 12 months or longer after acute case onset or, if asymptomatic, after the initial

positive test result. In this situation, a new chronic HCV case shall be created in Orpheus; the acute HCV case's status and classification shall not be changed.

3. A chronic case of HCV infection shall not be previously enumerated as a case of chronic HCV infection (i.e., avoid duplicate case creation).

3.9 Confirm that the Case Requires Investigation

Positive reports received from laboratories alone do not require further investigation (except for perinatal cases; see §3.10). However, reports from clinicians' offices or emergency departments do require some follow-up to determine if the case is acute or chronic.

Typically, contacting the clinician or reviewing the emergency department note will allow you to answer the three questions below. If the answer to all three questions is yes, you need to interview the patient and complete a case investigation form.

1. *Does the patient have acute hepatitis?*
   The person should have either jaundice, elevated bilirubin levels, or ALT levels over 200 IU/L. If liver enzymes were not checked or not found to be high, refer case for confirmatory testing, with their primary care provider if possible.

2. *Can other causes of acute hepatitis be ruled out?*
   Because of overlapping symptom manifestation for hepatitis, A, B, and C (and alcohol-related hepatitis), it is important to rule out hepatitis A and hepatitis B.

3. *Is it reasonable to conclude that HCV is the cause of the acute hepatitis?*
   This means evidence of HCV infection, either through positive EIA test or the presence of viral RNA. Note that false-positive EIA tests are common (up to 50% in low-risk populations). Antibody-negative patients can be retested in 6-9 months if there is concern about delayed seroconversion.

While only acute cases of hepatitis C require a full investigation and there is no test to determine acute infection, a positive HCV-test result in a person ≤ 30 years of age may be more likely to represent an acute infection. In this event, PHD recommends further follow-up if time and resources permit. LHD should request liver function tests (LFTs) on any anti-HCV positive individual ≤ 30 years of age from the reporting laboratory.

If the ALT levels are > 200 IU/L, LHD should contact the provider and determine the reason for testing to rule out acute infection. If the client experienced any signs and symptoms of acute viral hepatitis, the LHD should

conduct the usual investigation for an acute case of HCV. Although not required, further investigation of cases for whom a positive laboratory report has been received is encouraged. When possible, such cases should be contacted and referred for confirmatory testing by their primary care physician and counseled about modes of transmission, means of reducing spread to others, alcohol cessation, and the need for hepatitis A and B vaccination.

3.10 Perinatal Case Follow-up

Verify the infection source for an infant who has been reported as having evidence of HCV infection, the HCV status of the gestational parent should be determined whenever possible.

3.11 Services Available at the Oregon State Public Health Laboratories

The OSPHL uses a chemiluminescent microparticle (CMIA) for the qualitative detection of immunoglobulin G (IgG) and immunoglobulin M (IgM) antibodies to hepatitis C virus (anti-HCV) in human adult serum. Assay results, in conjunction with other laboratory results and clinical information, may be used to provide presumptive evidence of infection with HCV (state of infection or associated disease not determined) in persons with signs and symptom of hepatitis and in persons of risk for hepatitis C infection.

All reactive anti-HCV serums will be sent to a Hepatitis C Virus Nucleic Acid Testing (HCV NAT) Reference Center to identify current HCV infection. The OSPHL is assigned to the Michigan Department of Health and Human Services Bureau of Laboratories (MDHHS BOL) as their reference center. The testing algorithm for diagnosis of current HCV infection recommends that all persons who test positive for an HCV antibody (anti-HCV) test should receive an HCV nucleic acid test (NAT) to detect HCV RNA. If HCV RNA is detected the case is considered to have current HCV infection and should be linked to care. Clinicians will not need to order this testing independent of the screening order. There is presently no fee for the HCV NAT testing due to grant funding; however, this is conditional upon ongoing funding.

4. ROUTINE CASE INVESTIGATION

4.1 Identify Source of Infection

Routine case investigation should include documentation of case demographic, laboratory, and clinical data. Personal information should be collected based on people's self-reported identities and should include "REAL-D" and "SOGI" information.

Investigators should be aware that factors such as housing, socioeconomic status, work leave policies, and access to childcare and transportation all influence people's ability to present for care and receive testing. As a result, mild illnesses are more likely to be diagnosed in those who can access healthcare services more easily.

Interview the case (or primary caregivers) and any additional persons who may be able to provide pertinent information. Use professional interpretation services rather than relying on family members.

For acute HCV cases, ask about the 6 months prior to onset (although rarely, the incubation may be shorter or longer). Risk factors include:

- Parenteral drug use (i.e. injection)
- Occupational or
- Other needlestick injuries
- Blood transfusion, or
- Receipt of immunoglobulins, or
- Other blood products
- Other parenteral exposures including tattooing, ear piercing, organ or
- Tissue transplant, dialysis, recent surgery, or
- Receipt of an injection at a doctor's office, or
- Clinic (notify the ACDP on-call epidemiologist if you suspect the infection may be healthcare associated)
- High-risk sexual history, (e.g., multiple partners, history of other STIs, etc.)

4.2 Identify Potentially Exposed Persons

When attempting to identify potentially exposed persons, it is important to remember that Oregonians have a wide array of experiences with and opinions of government agencies. People may be fearful of providing information or having conversations with investigators, particularly if they are members of communities that have been mistreated by governments in the US or overseas (e.g. immigrant/refugee communities, religious minorities, racialized groups, LGBTQI+ people, Indigenous communities). When there is potential outbreak within a specific racial, ethnic, or cultural community, it is important to consult with leaders and experts in this community about how to proceed in a manner that will be perceived as respectful, non-threatening, and supportive of the well-being of this community.

Specific to HCV:

1. Determine if the case has donated blood or plasma in the 3 months prior to onset or any time thereafter. If so, notify the relevant blood bank or plasma center with particulars (date, etc.).
2. Identify persons who shared needles with the case or might have otherwise had contact with their blood. Inform these contacts about the signs and symptoms of hepatitis C and the need for testing regardless of symptoms (since the majority of those acutely infected are asymptomatic).
3. Query sexual and household contacts about recent signs and

symptoms of hepatitis; those with such a history should be referred for medical follow-up. (Since the risk of transmission during these types of everyday contacts is low, testing is not automatically performed.)

4.3 Environmental Evaluation

None.

5. CONTROLLING FURTHER SPREAD

5.1 Education

People should be counseled about the natural history of disease, modes of transmission, and means of preventing further spread. Some key messages identified by CDC include:[20]

- The effectiveness and benefits of direct-acting antivirals (DAAs) treatment.
- The importance of modifying health behaviors; for instance, following a healthy diet, staying physically active, avoiding alcohol consumption and consulting with a health professional when consuming over-the counter drugs, or supplements.
- The need to avoid or stop donating blood, tissue, or semen.
- The low but present risk for transmission to sex partners and when sharing personal items that might have blood on them, such as toothbrushes, dental appliances, razors, nail clippers, glucose meters, and lancet devices.
- Wiping surfaces with products containing bleach or ethanol, may kill the virus.
- The ways hepatitis C is NOT spread (e.g. sneezing, hugging, holding hands, coughing, sharing eating utensils, or drinking glasses or through food or water).

Persons who use drugs (PWUD) should be referred to harm-reduction and substance use disorder services, including medication-assisted treatment, to increase the likelihood of future healthy behaviors. Like any other community in Oregon, PWUD should be treated with respect and dignity. Resources for culturally sensitive approaches to work with PWUD are available at Save Lives Oregon and through public health provider education via NACCHO. When available PWUD who are positive for HCV antibody should be referred to PATHS. If identified in emergency departments, people can be referred to PRIME+ services where available.

When providing health education, it is important to remember that Oregonians represent a diverse array of cultures and vary in their preferred languages, ideas about health, and health literacy. Best practices include:

- Make every effort to provide information in the person's preferred language.

- Provide translated health education materials and utilize professional interpreter services whenever possible.
- Consult with ACDP epidemiologists about accessing OHA Interpretation Services when preferred language materials and services are not available at the LPHA.
- Avoid using family members, community leaders, or "lay" interpreters. However, respect people's preference if they desire a lay interpreter instead of interpretation services.
- In all oral communication and written materials, use plain language and equity-centered communication to convey inclusive and easily understood health messages.
- Tailor communications to the specific cultures of the intended audiences, for example using locally preferred names for places, body parts etc.
- When relevant and possible, consult with relevant community leaders and organizations about how to conduct investigations in the most appropriate (culturally and scientifically) manner.

When a potential outbreak may be concentrated in a particular community, it is critical that investigations proceed in a manner that is culturally (and scientifically) appropriate, which may require requesting guidance from relevant community leaders and organizations. The ability to conduct these investigations effectively requires that local public health authorities systematically engage cultural leaders and organizations in all their work, prior to the need for investigating a potential outbreak.

5.2 Isolation and Work or Childcare Restrictions

No occupational, school, or day-care restrictions are necessary for HCV-infected individuals. Standard precautions for bloodborne pathogens are sufficient to minimize risk of HCV transmission.

5.3 Case Follow-up

None required. The majority (75-85%) of HCV-infected individuals become chronically infected, and they should understand their elevated risk of long-term sequelae such as chronic or recurrent hepatitis, cirrhosis, and hepatocellular carcinoma.

5.4 Protection of Contacts

Not applicable.

5.5 Environmental Measures

Ensure that surfaces and objects contaminated with blood are properly disinfected using gloves and appropriate disinfectant solutions.

6. MANAGING SPECIAL SITUATIONS

6.1 Healthy Equity

OHA's strategic goal is to eliminate health inequities in Oregon by 2030. Health inequities are systematic, avoidable differences in health that are rooted in social and economic injustices, not simply differences in disease incidence, health outcomes and access to health care. When managing special situations, tailor interventions and communications based on individual circumstances and community history and culture, including intergenerational experiences that have contributed to inequities (e.g. displacement, economic exploitation, racial segregation). As appropriate, consult with culturally rooted organizations, such as American Indian or Alaskan Native agencies, Oregon Health Authority Regional Health Equity Coalitions (https://www.oregon.gov/oha/EI/Pages/RHEC.aspx), or culturally specific service providers to develop effective plans for conducting investigations, with an eye toward building trusting relationships.

6.2 Sharps Injuries

The CDC does not recommend post-exposure prophylaxis for HCV after needlesticks or similar sharps injuries. However, a new "test-and-treat" protocol for health care providers was developed in 2020 based on the ease of new HCV treatments and rapidly rising HCV prevalence in the US.[21]

- Baseline testing of the source patient and recipient of the injury should be performed as soon as possible (preferably within 48 hours) after the exposure. A "source patient" refers to any person receiving health care services whose blood or other potentially infectious material is the source of the HCP's exposure.
    - Two options are recommended for testing the source patient: (NAT) for HCV RNA is preferred. The second option is to test the source patient for antibodies to hepatitis C virus (anti-HCV) and then if positive, test for HCV RNA.

- For the injured party, baseline testing for anti-HCV, with reflex to a NAT for HCV RNA if positive, should be conducted as soon as possible (preferably within 48 hours) after the exposure.
    - If follow-up testing is recommended based on the source patient's status (e.g. HCV RNA positive or anti-HCV positive with unavailable HCV RNA or if the HCV infection status is unknown), the injured party should be tested with a NAT for HCV RNA at 3-6 weeks postexposure.
        - If HCV RNA is negative at 3-6 weeks postexposure, a final test for anti-HCV at 4-6 months postexposure is recommended.

Furthermore, there are additional post-exposure recommendations following a sharp injury related to hepatitis A, hepatitis B, and HIV; see https://www.cdc.gov/nora/councils/hcsa/stopsticks/whattodo.html.

6.3 Possible Healthcare-Associated Infections.

Particularly in patients without the usual behavioral risk factors associated with the acquisition of HCV, further investigation into possible healthcare exposures should be pursued. Contact the on-call epidemiologist at 971-673-1111 if you suspect a healthcare-associated infection.

6.4 Common Source Outbreak Suspected

Contact with blood in occupational settings, on the scene of a motor vehicle collision, or in-home injuries place people at risk. In the case of any other unusual possible infection occurrences, consult with ACDP epidemiologists.

GLOSSARY

ALT/AST: these are both liver enzymes classified as serum aminotransferases or transaminases and are useful indicators of liver damage. Alanine aminotransferase is usually abbreviated as ALT (or SGOT) and is particularly sensitive for assessing liver damage secondary to HCV. Aspartate aminotransferase is referred to as AST (or SGPT).

Anti-HCV: Enzyme immunoassay to measure HCV antibody. Indicates presence of antibody only and cannot be used to distinguish between recent and past infection. Additional testing is required to determine if the individual is chronically infected**.**

PCR (i.e. Nucleic Acid Test [NAT]): polymerase chain reaction, used to measure HCV RNA and indicates active replication of the virus (e.g. Chronically infected). The qualitative PCR is more sensitive than the quantitative assay and is preferred for the initial test. The quantitative PCR is often used to guide initial treatment decisions and to follow the progress of individuals undergoing treatment.

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UPDATE LOG

August 2024 – Updated epidemiology incidence and prevalence data. Updated education section to reflect most recent recommendations. Updated lab information, and reorganized references. Reduced and reorganized risk dynamic section. Updated and restructure LHD responsibilities, added new section Criteria to Distinguish a New Case of Acute or Chronic Hepatitis C from Reports or Notifications, updated section of services available at OSPHL. Clarified when to verify pregnancy status for case investigations, added how long virus can live on surfaces. Removed glossary terms not relevant to Hepatitis C infection. Added and updated hyperlinks to HCV resources. Updated for person centric language and health equity components. Made punctuation and grammar corrections to match OHA standards. Added resources to education section (Escutia, Obrien, Chakwin)

November 2023 – Added: Discussion of different genotypes in “Description of Illness” section. Risk Dynamics section and discussion of risk for MSM living with HIV. Updated: Reporting timeline for clinicians and labs to one day, per poster. Statistics on risk of transmission during sexual encounters, in healthcare settings.

Treatment section based on CDC and American Association for the Study of Liver Diseases in partnership with the Infectious Disease Society of America standards. Moved information about prevalence to the “Risk Dynamics” section. Changed needlesticks section title to “Sharps Injuries to mirror National Occupational Research Agenda terminology. Deleted outdated statistics about risk of transmission through different modes: no source cited, overly precise without contextualization, out of date given new HCV drugs. Deleted RIBA and signal cut-off ratio from glossary since they are no longer used or available, as well as genotype since it’s described in the document text.

January 2020 – Updated case definition. Removed the requirement for the presence of a discrete onset of symptoms for acute cases; added use of bilirubin test results for case classification. Added new NAAT confirmatory testing available at the OSPHL as of February 1, 2020. (Poissant)

January 2018 – Added perinatal case definition. (Poissant)

April 2016 – Added case definition FAQs. (Poissant)

January 2016 – Updated case definition. Removed criteria for s/co ratio; removed Table 1. Seroconversion time frame now goes back 12 months. Updated treatment section. (Poissant)

July 2014 – Updated Table 1. Added Kaiser/OHSU to list of labs that do not report s/co value but all positive reports are above s/co ratio predictive of a true positive. Added new lab - CDD.

December 2013 – Removed RIBA confirmatory test from guidelines as it is no longer available. Removed statement that OHA will request LFTs on positive persons <30 years of age. Recommended that LHDs perform this follow-up. (Poissant)

January 2013 – Updated Table 1, s/co ratio. Moved Samaritan Lebanon Community Hospital from the “Abbott Assym” to Abbot Architect. (Cunningham)

October 2012 – Inserted reference to CDC screening guidelines for 1945-1965 birth cohort and updated Table 1 (s/co ratio). (Cunningham)

March 2012 – Removed “3.3 4. previously reported as acute HCV (or presumptive chronic HCV) with a subsequent positive RIBA, PCR or genotype result >6 months later.” from confirmed chronic case definition in order to follow CDC/CSTE guidelines. (Poissant)

January 2012 – Updated case classifications per CDC/CSTE guidelines. Asymptomatic seroconverters may now be classified as confirmed acute cases. Presumptive chronic cases must have elevated ALTs to meet the case definition. Added suspect case definition. Updated assay and s/co ratio for Interpath Laboratory and Legacy. Updated labs that may not report the s/co ratio. (Poissant)

September 2011 – Updated anti-HCV assay and s/co ratio for Salem Hospital laboratory. Updated new treatment therapies. Updated acute case classification for clarity. (Tasha Poissant)

November 2010 – Updated age guidelines for anti-HCV testing for infants born to HCV-positive women per CDC, the American Association for the Study of Liver Disease and the American Academy of Pediatrics. (Van Ness)

April 2010 – Added guidelines for anti-HCV testing for infants born to HCV-positive women, per CDC guidelines.

October 2008 – Updated Table 1 “Signal cut off ration of HCV screen tests used by Oregon laboratories. November 2008. Added details on OPHD requesting LFTs for for anti-HCV+ people <30. Updated case definition: acute cases with positive PCR/genotype results >6 months later should be reported as chronic.

May 2007 – Updated case definition to reflect CSTE changes. Added Glossary of Terms for hepatitis serologies.