# HEPATITIS C OUTBREAK

## RESPONSE CHECKLIST

☐ Determine whether a hepatitis C outbreak is occurring. (See Outbreak Detection and Outbreak Investigation). For hepatitis C, there are two sets of criteria for defining an outbreak, based on:

- Rates of acute cases of HCV or clusters of acute HCV (Table 2)
- Rates of chronic HCV in persons under the age of 30 (Table 3)

☐ Determine the type of response and level of response needed based on the Tiered Response Plan

☐ Review criteria for establishing an incident management team (IMT)

☐ Identify internal and external stakeholders (See Internal Partners and External Partners).

☐ Develop a communications plan and develop messages for populations at risk, general public, the media, and health department leadership and local and state government partners (see Communications)

☐ Define strategies to perform targeted HCV screening, treatment and provision of harm reduction counseling and supplies. (See Prevention and Control Measures)
For identified HCV cases, offer confirmatory RNA testing, pretreatment assessment, linkage to care and additional screening as indicated

- For syringe-sharing contacts, over HCV antibody screening and harm reduction supplies/education
- Procure adequate supplies of HAV and HBV vaccine and facilitate distribution.
  - Estimate the number of vaccine doses needed by adding the number of identified HCV cases, and assume 3 syringe-sharing contacts per case who may also be eligible for vaccination.
- Ensure a culturally competent and trauma-informed approach to working with high-risk and priority populations

☐ Post outbreak activities

- Define the end of the outbreak
- Plan to continue vaccination of high-risk populations
- After action evaluation

# Hepatitis C Outbreak
## Investigative Guidelines
## January 2023

## 1. DISEASE REPORTING

### 1.1 Purpose

The purpose of these guidelines is to establish best practices for identifying and responding to clusters of hepatitis C virus (HCV). However, depending on the setting and magnitude of the suspected cluster, consideration must be given to the resources available. OHA Viral Hepatitis Program (VHP) and Health Security Preparedness and Response (HSPR) staff will discuss with the affected Local Public Health Authorities (LPHAs) whether it will be possible to fully implement these recommendations for all suspected outbreaks of HCV.

### 1.2 Transmission

HCV is the most common bloodborne infection in the United States. Percutaneous exposure is the most efficient mode of HCV transmission, and injection drug use (IDU) is the primary risk factor for infection. Mucous membrane exposures to blood also can result in transmission, although this route is less efficient. HCV can be detected in saliva, semen, breast milk, and other body fluids, although these body fluids are not believed to be efficient vehicles of transmission (See Table 1 for quick facts on HCV).

**Table 1. HCV Quick Facts**

| | |
|---|---|
| **Causative agent** | Small, single-stranded enveloped RNA virus in flavivirus family |
| **Signs and symptoms** | Typically asymptomatic, but may present with fever, headache, fatigue, loss of appetite, nausea, vomiting, diarrhea, abdominal pain, dark urine, grey-colored stools, joint pain, and jaundice |
| **Transmission** | • Percutaneous exposure to infected blood is the most efficient mode of HCV transmission<br>• Mucous membrane exposures to blood also can result in transmission, although this route is less efficient |

| | |
|---|---|
| | • HCV can be detected in saliva, semen, breast milk, and other body fluids; these body fluids are not believed to be efficient vehicles of transmission<br>• Perinatal transmission is an important route of transmission |
| **Infectious Period (time from exposure to symptoms)** | • As soon as 1–2 weeks after exposure, although most people do not experience symptoms<br>• Individuals who are HCV RNA positive are considered infectious |
| **Incubation period (time from exposure to symptoms)** | 2–12 weeks |
| **Laboratory Diagnosis** | HCV RNA appears in the blood 1–2 weeks after exposure, and HCV antibodies can be detected 4–10 weeks after exposure and as late as 6 months after exposure |
| **Prevention** | 1) Harm reduction measures (use of clean needles, syringes, rinse water) to minimize the risk of spread through injection drug use<br>2) Strict adherence to standard precautions and other infection control practices in healthcare settings<br>3) Use of condoms can prevent the minimal risk of sexual transmission<br>4) Not sharing personal items that might have blood on them, such as toothbrushes, dental appliances, razors, nail clippers, glucose meters, and lancet devices |
| **Treatment** | • Although initial regimens were often ineffective and carried a high risk of serious adverse events, DAAs are better tolerated and have much improved effectiveness<br>• Approximately 90% of HCV-infected persons can be cured of infection with 8–12 weeks of therapy, regardless of genotype, prior treatment experience, fibrosis level, or presence of cirrhosis |

## 1.3 Clinical Presentation

Persons with acute HCV infection are typically either asymptomatic or have a mild clinical illness like other types of viral hepatitis. Jaundice might occur in 20%–30% of persons, and nonspecific symptoms (e.g., anorexia, malaise, or abdominal pain) might be present in 10%–20% of persons. The average time

from exposure to symptom onset is 2–12 weeks (range: 2–26 weeks). HCV antibodies (anti-HCV) can be detected 4–10 weeks after infection and are present in approximately 97% of persons by 6 months after exposure. HCV RNA can be detected as early as 1–2 weeks after exposure and indicates that the individual is infectious.

Historically, approximately 15%–25% of persons were believed to resolve their acute infection without sequelae. However, more recent data suggest that spontaneous clearance might be as high as 46%, with higher rates of clearance among those who are younger, female, symptomatic at the time of initial infection, and not co-infected with hepatitis B virus (HBV). The course of chronic liver disease progresses slowly without symptoms or physical signs in most persons during the first 20 years or more following infection. Approximately 5%–25% of persons with chronic HCV will develop cirrhosis over 10–20 years, and those with cirrhosis have a 1%–4% annual risk for hepatocellular carcinoma (HCC).

## 1.4 Current rates and epidemiology

The annual rate of reported acute HCV in the U.S. tripled from 2009 to 2018 and was highest among persons aged 20–39 years. In 2018, the largest proportion of chronic HCV cases occurred among persons aged 20–39 years and 50–69 years. Epidemics of opioid and methamphetamine use have fueled the increased risk of transmission of bloodborne viruses such as HCV and HIV through injection drug use, particularly in rural and suburban settings.

Outbreaks of HCV have also occurred in healthcare settings in recent years. Considering the differences between the risk factors, methods of case investigation, personnel, and partnerships needed for investigation and control, OHA will outline in a separate guideline the management of healthcare-associated outbreaks of viral hepatitis.

## 1.5 Screening and treatment

No vaccine against HCV exists, and no effective pre- or postexposure prophylaxis (e.g., immune globulin) is available. Previous CDC strategies for HCV screening based on risk factors have largely been ineffective. In 2016, only 56% of adults with HCV knew that they were infected. Therefore, the CDC implemented a universal testing strategy in 2020, which recommended a one-time testing of all adults over 18 years of age, testing of pregnant women with each pregnancy, and periodic screening of persons who inject drugs (PWIDs).

The treatment for HCV infection has evolved substantially in the last decade since the introduction of direct-acting antiviral agents (DAAs). DAA therapy is better tolerated, of shorter duration, and more effective than interferon-based regimens used in the past. The antivirals for HCV treatment include next-generation DAAs, categorized as either protease inhibitors, nucleoside analog polymerase inhibitors, or nonstructural (NS5A) protein inhibitors. Many agents are pangenotypic, meaning they have antiviral activity against all genotypes. Approximately 90% of HCV-infected persons can be cured of HCV infection with

8–12 weeks of therapy, regardless of HCV genotype, prior treatment experience, fibrosis level, or presence of cirrhosis.

## 2. OUTBREAK DETECTION

### 2.1 Outbreak Criteria

To determine whether public health interventions beyond routine case investigation and control methods are required, the OHA will apply criteria that consider whether the increases occur among acute or chronic cases (Tables 2 and 3).

On a monthly basis, the VHP Medical Director, Hepatitis Epidemiologist, and Viral Hepatitis Prevention Coordinator (VHPC) will review acute cases of HCV that have been reported to Orpheus, ACDP's surveillance database. Table 2 outlines the thresholds for launching an outbreak investigation based on the number of acute cases and the number of syringe-sharing contacts they have. Since acute cases are rare, the threshold for elevating to a Tier 2 or Tier 3 response, which will require contacting syringe-sharing contacts of cases, will be lower than for launching an outbreak investigation into chronic cases of HCV infection.

**Table 2. Tiered response plan based on surveillance for *acute HCV***

| Tier | Level of Response | Need for IMT | Communications plan |
|---|---|---|---|
| **I. Sporadic cases (baseline)** | Routine case investigation of acute cases | None | Routine posting of surveillance data on OHA website |
| **II. Any acute case with 3 or more needle sharing contacts**<br>**Or**<br>**2 acute cases in single county**<br>**Or**<br>**2 acute cases in different jurisdictions with epi links** | • As part of case investigation, if a case reports injection drug use in past 6 months, inquire about number of syringe-sharing contacts in past 6 months<br>• Obtain contact information for exposed persons and attempt to notify syringe-sharing contacts of their exposure and offer HCV testing, harm reduction counseling, | • VHP medical director notifies ACDP section manager and Health Security, Preparedness, and Response (HSPR) manager<br>• Together, they consider need for incident management team (IMT) response | OHA public health information officer (PIO) assigned to the response will: establish contact with LPHAs, disseminate plain language information about HCV to cases and contacts in affected settings (as applicable), and consider need for press release in collaboration with LPHA |

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| **within a 4-week period**<br><br>**Or**<br><br>**A single case of acute HCV acquired in a carceral or residential setting** | and HAV and HBV vaccination<br>• If resources permit, consider HIV/STI (particularly syphilis) testing of cases and contacts, linkage to infectious disease care, as well as referral for medication for opioid use disorder (MOUD) and substance use disorder (SUD) treatment | | |
| **III. 3 or more epi-linked cases in a 4-week period** | • Continue follow up of acute cases and screening of exposed contacts, broaden screening program to include high risk groups (not just contacts), and consult with CDC about the need to obtain specimens for genotyping and sequencing<br>• Do the following: mobilize additional resources to offer screening (including HIV, syphilis, and other STIs) and linkage to care to individuals who screen positive; increase public and provider awareness of the importance of screening and the availability of highly effective treatment; broadly promote harm reduction measures; promote | VHP medical director consults with ACDP section manager, HSPR, Oregon Immunization Program (OIP) on scope of IMT response | OHA PIO activates communications plan, prepares press releases, plans social media campaign, provides updates to OHA leadership and other key stakeholders |

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| | HAV and HBV vaccination of cases and their contacts; and increase awareness of local resources for MOUD and SUD treatment | | |

Because most acute cases of HCV in Oregon are not reported to OHA, trends in the incidence of chronic cases of HCV infection will help identify regions of the state with increases in HCV transmission (See Table 3).

The basic approach will be to monitor rates of cases reported with chronic HCV under the age of 30 years. This age group often acquires HCV through injection drug use and likely represents recently acquired HCV, since most people acquire HCV from drug use within 2-3 years of initiation. Since reports of chronic cases in persons under age 30 years are common, any recommendations to interview chronic cases under the age of 30 will be considered a Tier 2 response and will likely require assistance from OHA. If high numbers of cases are found among people reporting recent injection drug use and multiple syringe-sharing contacts, the response will be upgraded to Tier 3.

Additionally, the VHP Program Medical Director and VHP Epidemiologist will attend monthly meetings of the HIV cluster review team to exchange information about recent surveillance trends and maintain situational awareness of trends in transmission of bloodborne pathogens

**Table 3. Tiered response plan based on surveillance for *chronic* HCV**

| Tier | Level of Response | Need for IMT | Communications plan |
|---|---|---|---|
| **I. Monthly rates of chronic cases in persons < 30 years are within baseline** | • Routine case investigation of acute cases only<br>• If resources are available, consider conducting interviews of sample of chronic cases under 30 years. | None | Routine posting of surveillance data on OHA website |
| II. **Occurrence of a rise in the number of chronic cases in persons under 30 years in a jurisdiction more than two standard deviations** | • Conduct enhanced surveillance of persons with chronic HCV infection under 30 years, consisting of either medical record review or interview of cases, with the goal of | VHP medical director notifies ACDP section manager | OHA PIO assigned to the response establishes contact with LPHA PIO, disseminates plain language information about HCV to cases |

| | | | |
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| **above the monthly average from the previous 3 years**<br><br>**Or**<br><br>**Cases of HCV infection found during HIV or HBV outbreak**<br><br>**Or**<br><br>**Time/space cluster detection noted** | determining how many have injected drugs in the past 6 months and their numbers of syringe-sharing contacts (Appendix A)<br>• For interviewed cases, provide harm reduction counseling, HAV and HBV vaccination, testing for HIV, syphilis and other STIs, as well as linkage to infectious disease and MOUD/SUD treatment | and HSPR manager, who considers need for IMT response | and contacts in affected settings as applicable, and considers need for press release in collaboration with LPHA |
| **III. High prevalence of HCV infection (>30%) in persons who inject drugs undergoing screening for HCV infection in settings serving individuals at high risk, such as syringe service programs (SSPs) and opioid treatment programs (OTPs)** | • Interview chronic HCV cases of any age identified in venues with high prevalence of HCV infection and offer HCV screening to syringe-sharing contacts of cases<br>• Will need to mobilize additional resources to offer screening and linkage to care to individuals who screen positive, increase public and provider awareness of the importance of screening and the availability of highly effective treatment, broadly promote harm reduction measures and HAV and HBV vaccination, and increase awareness of local resources for MOUD and SUD treatment | VHP medical director consults with ACDP section manager, HSPR, OIP who will consider scope of IMT response | OHA PIO activates communications plan, prepares press releases, plans social media campaign, provides updates to OHA leadership and other key stakeholders |

# 3. OUTBREAK INVESTIGATION

## 3.1 Case definition

The case definition for acute HCV (Appendix B) requires both laboratory evidence of HCV and acute onset of symptoms of viral hepatitis or symptoms of acute hepatitis combined with a history of exposure to a confirmed case. In the setting of an outbreak, it is also useful to further specify which cases are considered part of an outbreak by defining a particular time frame, geographic area, or risk group. For instance, an isolated case residing in a county outside the geographic area affected by an outbreak would not be included in cases counts for the outbreak and would not impact whether an outbreak is considered "over."

The case definition for chronic HCV (Appendix C) is largely based on laboratory findings since these individuals are rarely contacted for interview. Review of medical and laboratory records can be helpful in distinguishing acute from chronic cases.

## 3.2 Case finding

Following investigative guidelines, all reports from clinicians of cases of acute HCV will be investigated by the LPHA within one week. LPHA staff will complete the standard acute HCV case report form (Appendix D) and submit all case data electronically to Orpheus. Additionally, if resources allow, jurisdictions may elect to interview or review medical records of cases of chronic HCV in persons under the age of 30 who have positive laboratory markers for HCV.

During an outbreak investigation, OHA and LPHA staff may also implement more active case finding methods by alerting local clinicians, hospitals, emergency departments, and locations where cases have been identified (i.e., carceral settings, homeless shelters or camps, agencies providing harm reduction services to PWIDs) to notify the LPHA of suspected cases prior to laboratory confirmation. As described above in Tables 2 and 3, cases will be asked about syringe-sharing partners who should be contacted and offered screening to identify additional cases.

## 3.3 Case characterization and interviews

The standard acute HCV case report form will be used as a starting point for interviews during outbreaks and includes demographic factors (including collection of REALD), complications of HCV such as hospitalization and death, and history of vaccination. It will also include the following risk factors: pregnancy; sexual exposures; history of injection drug use (including number of needle-sharing contacts); healthcare exposures such as hospitalization or surgery; receipt of blood transfusion or other blood products; use of renal dialysis; use of shared blood glucose monitor; residence in a congregate setting; occupational exposures; as well as recent incarceration.

Additionally, interviews with the initial cases may suggest additional risk factors or locations associated with the outbreak that should be incorporated into subsequent interviews. For example, it will be important to collect additional information about cases residing in congregate settings and homeless shelters and camps, and whether cases share injection supplies. ACDP informatics or epidemiology staff will add supplemental questions to the HCV disease module in Orpheus, enabling LPHA and OHA staff to immediately begin asking these questions and entering the data into Orpheus.

If criteria for Tier 2 or 3 for chronic cases of HCV are met, then the LPHA (with OHA assistance) will begin conducting interviews with chronic cases using the brief interview form for chronic cases (see Appendix A). This form explores history of injection drug use and numbers of needle-sharing contacts, which will guide control measures, such as notifying needle sharing contacts of their exposure and offering them screening.

## 3.4 Case reporting

To improve case ascertainment, OHA will employ such methods as the Health Alert Network (HAN) to notify providers and LPHAs of an outbreak of HBV and encourage prompt reporting. Notifications may also be sent through EpiX if the Oregon outbreak involves cases residing in other states. OHA will also disseminate information about the outbreak and encourage reporting from settings indicated by the epidemiology of the initial cases, such as homeless shelters and camps, carceral settings, syringe service programs (SSPs), SUD treatment centers, or healthcare settings.

## 3.5 Contact tracing

Once criteria for Tier 2 or 3 for acute cases of HCV is met (Table 2), LPHA investigators should identify and notify syringe-sharing contacts of acute cases to notify them of the exposure, provide HCV screening, offer HAV and HBV vaccines where applicable, and provide harm reduction counseling. If a patient is unwilling or unable to provide the name or contact information for their syringe-sharing contacts, convey the importance of screening contacts and share the health department's contact information. If resources permit, consider HAV and HBV vaccination of cases and their contacts, HIV/STI (particularly syphilis) testing of cases and contacts, and linkage to infectious disease and medication for opioid use disorder (MOUD)/SUD treatment.

Similarly, once criteria for Tier 2 or 3 for chronic cases of HCV are met (Table 3), if resources permit, LPHA investigators should identify and notify syringe-sharing contacts of chronic cases to notify them of the exposure, offer HCV screening and HAV and HBV vaccination, and provide harm reduction counseling. If resources permit, offer HIV/STI (particularly syphilis) testing of cases and contacts, as well as linkage to infectious disease and MOUD/SUD treatment.

### 3.6 Lab testing

Initial screening for HCV infection should start with an antibody test, which determines whether the individual has ever been exposed to HCV. Any FDA-approved test suffices if phlebotomy services are available. A useful alternative in outreach settings is the OraQuick® Rapid Antibody Test, which requires only a fingerstick and provides a test result in 20 minutes. To confirm whether the individual is viremic, meaning that they are currently carrying the virus and can infect others, obtain an HCV RNA test by polymerase chain reaction (PCR).

Serological testing for HCV can be performed at the Oregon State Public Health Laboratory (OSPHL) but is also widely available in clinical labs. OSPHL performs an enzyme immunoassay (EIA) test and sends serum to the Michigan Department of Public Health Laboratories if needed for HCV RNA testing.

EIA and RNA tests are ordered using the Virology/Immunology request form by checking off the appropriate box under "Tests Requested." OSPHL can perform these tests on any working day and generally provides results in three days. OSPHL's Specimen Transport Manifest ensures that OSPHL receives all the specimens sent.

During a suspected or ongoing HCV outbreak, molecular testing can be useful in establishing a common source of infection and identifying transmission linkages. CDC's Division of Viral Hepatitis molecular testing lab can use next-generation sequencing (NGS) to detect cases sharing similar HCV strains. OHA can coordinate submission of specimens from cases with positive RNA testing to CDC for NGS/GHOST testing.

## 4. OUTBREAK RESPONSE

### 4.1 Roles

LPHA communicable disease staff and OHA VHP staff in ACDP will likely be the first public health staff aware of the outbreak. They will take the initial steps to determine whether the criteria for an outbreak have been met and decide on a preliminary course of action. As needed, additional staffing will be drawn from the list of internal and external partners listed below.

| **Table 3. Internal Partners** |
|---|
| Public Health Division partners involved in hepatitis outbreak responses |
| • LPHA health officer, administrator, communicable disease staff<br>• ACDP VHP staff and members of Urgent Epi Response Team (UERT) as needed<br>• ACDP Healthcare-Acquired Infection (HAI) Program if transmission in a healthcare setting is documented<br>• Immunization Program<br>• HSPR<br>  ○ Serv-OR volunteers<br>  ○ Public Information Officer |

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|---|
| • Oregon State Public Health Laboratory<br>• Office of Equity and Inclusion<br>• HIV/STI/Tuberculosis Program |
| Other OHA or Department of Human Services (DHS) divisions or offices |
| • OHA Behavioral Health<br>• OHA Medicaid program<br>• PHD Community Engagement Team<br>• HSPR Regional Emergency Coordinators (RECs) |

Oregon recognizes that culturally and linguistically appropriate responses to complex public health problems requires investment in communities, partnership across state agencies, and local and regional strategies to address community priorities. The Oregon Legislature has provided significant support to local public health, tribal agencies, and healthcare partners to fully integrate public health, health care and community-level health improvement efforts.

Where available, LPHAs should reach out to Peer Recovery in Medical Establishment (PRIME+) agencies to engage with peers who routinely conduct outreach to PWUDs. Additional external partners that could be involved in the response to an outbreak of HCV are listed below.

| **Table 4. External Partners** |
|---|
| • Tribal public health authorities<br>• Community-based organizations serving populations at high risk for HCV<br>• Homeless service providers<br>• Mental or behavioral health service providers<br>• Syringe service programs (SSP)s and other sites providing harm reduction services<br>• PRIME+ partners, and other agencies employing peer support specialists<br>• Coordinated care organizations (CCOs), federally qualified health centers (FQHCs), emergency departments, other community healthcare and academic partners<br>• Emergency medical services (EMS)<br>• County-level Office of Emergency Management<br>• Retail pharmacies<br>• Corrections, including state corrections, community-corrections, local/municipal jails and youth detention facilities<br>• Faith-based organizations<br>• Law enforcement<br>• State and local government |

## 4.2 Initiating and mounting a Response-Incident Management Team

Once a cluster of cases or an increase above historical levels is detected, the VHP Medical Director or VHP Hepatitis Epidemiologist will notify the ACDP

section manager and the OIP of the outbreak. The VHP Medical Director, the VHP Hepatitis Epidemiologist, the VHPC and OIP will attend all LPHA cluster response meetings.

The VHP will update the HSPR program of the current situation. This is generally conveyed to the Public Health Duty Officer or the HSPR manager. The Public Health Duty Officer, in consultation with ACDP and HSPR leadership, may be asked to convene a Health Intelligence Briefing (HIB). Present at this briefing are internal partners and OHA leadership. The status of the outbreak and predicted outcomes and actions will be evaluated. If the current outbreak can be managed by ACDP and the LPHA, no further action will be taken. If additional resources and oversight are required to manage the outbreak, an IMT will be activated. An IMT would likely be needed if the threshold for a Tier 3 response is met, or the magnitude or morbidity/mortality associated with the outbreak dictates the need for a large and coordinated response.

Typically, decisions about the need, size, and scope of the IMT will be made by OIP and HSPR in consultation with the VHP Medical Director at the HIB. A public information officer (PIO) will also be assigned to the cluster response and coordinate communication between the LPHA, ACDP, and public health leadership. Multiple staff members in ACDP, along with partners in Immunization, HSPR, and other OHA programs, are trained in incident management and will staff an incident management team. In addition to VHP staff, ACDP's UERT will provide epidemiologic and IT staff, and the IMT may recruit additional assistance from HSPR, HST, or OIP staff as needed. The Incident Manager will take a lead role in coordinating planning and logistics of an IMT.

## 4.3 Local Public Health Authority (LPHA)

In Oregon, the LPHA is the health authority. Unless the LPHA defers responsibility to OHA or more than one county is involved, the LPHA will be tasked with organizing an incident command team and coordinating the cluster response. OHA staff will work closely with the LPHA Health Officer and communicable disease staff to provide technical assistance and support the response.

The respective LPHA(s), with the support and guidance from ACDP OHA staff, will be responsible for enlisting the assistance of local stakeholders, organizations, and community groups to aid in a culturally respectful response. If requested, OHA staff will be available to assist LPHA needs with case investigations and contact tracing, media communications, and prevention and control efforts (i.e., HCV screening and linkage to care, vaccination against HAV and HBV).

## 4.4 Epidemiologic Support

Key responsibilities of OHA epi staff include revising the hepatitis disease module in Orpheus as needed; analyzing and summarizing data; editing investigative guidelines; drafting additional guidance as needed; and providing

technical assistance for management of special situations and settings (carceral setting or other congregate care facilities; assessment of risk of spread in healthcare settings; outbreak involving PWIDs).

Although case and contact investigations are the primary responsibility of the LPHA, the magnitude of the outbreak or competing priorities may require OHA epi staff to assist with case and contact investigations.

### 4.5 Communications

A PIO will take the lead in developing a communications plan for keeping key stakeholders informed of developments in the outbreak. The target audiences for risk communication strategy will be include populations at risk, the public, and the media, as well as health department leadership and local and state government partners. The basic list of products includes the following:

- Templates for press releases for OHA, LPHAs or other community partners
- Plain language materials for the public
- Plan for social media campaign
- Targeted health education material for high-risk persons and identified cases, such as how to clean syringes and use bleach effectively, locations of SSPs and availability of testing and vaccination services

We may also use the following communication tools to inform community and healthcare partners of the outbreak:

- Oregon's Health Alert Network
- Dear Colleague letter to clinicians
- PHD Office of LPHA Liaisons for LPHA Communications
- The CD Summary – a monthly publication of the OHA, Public Health Division. Its intended audience is licensed health care providers, public health and health care agencies, media representatives, medical laboratories, hospitals, and others with an interest in epidemiology and public health
- PRIME+ agencies, which can help disseminate information to high-risk populations
- Basecamp for the Viral Hepatitis Collective–a network of stakeholders engaged in viral hepatitis elimination planning

## 2. PREVENTION AND CONTROL MEASURES

### 5.1 Outreach to Cases and Exposed Contacts

A community-based outbreak of HCV will require prompt implementation of screening services and actions to ensure linkage to care with direct-acting antiviral medications, along with counseling about harm reduction measures to prevent further spread.

For ***identified cases of HCV***, the primary needs include counseling about harm reduction measures to prevent further spread, confirmatory RNA testing by PCR, additional pre-treatment workup to assess whether cirrhosis is present (because

it impacts treatment strategy), and referral to a provider knowledgeable about the treatment of HCV (primary care provider or a specialist in gastroenterology or infectious diseases). Attempts should also be made to offer screening for HIV and STIs, particularly syphilis, vaccination against HAV and HBV, and appropriate referrals to medication for opioid use disorder (MOUD) and substance use disorder (SUD) treatment.

For ***syringe-sharing contacts*** of cases, the immediate need is screening for antibodies to HCV, along with counseling about harm reduction. Even if negative for HCV, individuals who inject drugs should be offered screening for HIV and STIs (particularly syphilis), vaccination against HAV and HBV, and appropriate referrals to MOUD and SUD treatment. If contacts are positive, then they should be interviewed using the case report form so that their needle-sharing contacts can be notified of exposure.

## 5.2 Reaching priority populations

The populations at highest risk for HCV infection during these ongoing outbreaks can be challenging to reach with traditional education efforts due to a variety of factors including behavioral health issues, lack of engagement with the healthcare system and other institutions, as well as lack of transportation. LPHAs and healthcare providers will need to employ additional measures to reach these populations.

Potential measures include:

- Notify community healthcare providers of the outbreak and the need for expanded efforts to screen for HCV, Human Immunodeficiency Virus (HIV), and Sexually Transmitted Infections (STIs), linkage of patients to appropriate treatment for any identified infections, and vaccinations for HAV and HBV
- Identify local clinicians and clinics who have the capacity to treat HIV and HCV to facilitate referrals for treatment
- Involve partners in the outbreak response who already interact with the at-risk population, including corrections, hospitals, community clinics, law enforcement, local governments, and others
- Seek out partners who consistently interact with individuals at risk for HCV in a trusted manner: PRIME+ agencies, syringe service programs, homeless providers, substance use programs, faith organizations, and community-based agencies serving immigrants and communities of color
- Plan field screening and vaccination events in areas frequented by individuals most at risk for HCV infection. To identify these areas, collaborate with partners who can provide expertise in:
    - Local epidemiology (i.e., identify areas where cases have been found to prioritize location of screening/vaccination events)
    - Local populations of PWUDs (i.e., identify areas where people who use drugs access services or receive healthcare)
    - Local access to impacted community gatekeepers

Potential partners and sites that can host screening and vaccination events include syringe service programs, carceral settings and community corrections, emergency departments, SUD treatment providers, homeless services providers, mental health programs that serve people who inject drugs, faith-based organizations, parks, libraries, facilities that issue social service benefits, and facilities serving veterans.

## 3. POST OUTBREAK ACTIVITIES

### 6.1 Define the End of the Outbreak

Decisions about de-escalating the response will be based on declining case rates in affected populations and meeting vaccination targets in high-risk populations identified during the outbreak.

### 6.2 Plan for continued screening and vaccination of at-risk populations

- Continue to promote screening of high-risk populations in the following areas: healthcare settings and SUD/OTPs; and outreach settings where resources for rapid HCV screening may be available, such as SSPs, PRIME+ sites, homeless shelters and camps, and community-based organizations
- Continue to promote HAV and HBV vaccination to high-risk populations in healthcare clinics, pharmacies, dentists, sexually transmitted infections clinics, and public health agencies, as well as by non-traditional vaccine providers such as PRIME+ agencies and SUD/OTPs

### 6.3 After-action evaluation and report

VHP staff will survey local and community partners who assisted in the response regarding:

- The structure of the response
- Communication between OHA, internal and external partners
- What went right?
- What could have gone better?
- What service gaps exist?
- Did we accomplish what we set out to do?

VHP and HSPR will convene a meeting (a hotwash) with key partners to solicit feedback around the strengths and challenges of response related to:

- Components of the cluster investigation that yielded the most useful information
- Data sources that were the most useful
- Staffing/resources needed for the investigation and intervention activities
- Partnerships that were the most effective, and which could benefit from additional development
- Costs associated with cluster investigation
- Costs associated with the intervention

Findings from the partner survey and hotwash meeting will be used to compile an after-action report. This report will include a list of recommendations outlining areas of improvement in the response planning and execution, the impact of any short-term changes to policies or protocols during the response and whether those changes should be adopted as standard practice.

## 4. RESOURCES

### General

- Hofmeister MG, Rosenthal EM, Barker LK, et al. Estimating prevalence of hepatitis C virus infection in the United States, 2013–2016. Hepatology 2019;69:1020–31.
- Kim H, Yang J, El-Serag HB, Kanwal F. Awareness of chronic viral hepatitis in the United States: an update from the National Health and Nutrition Examination Survey. J Viral Hepat 2019;26:596-602.
- HCV guidance: recommendations for testing, managing, and treating hepatitis C. AASLD/IDSA 2021.
- Step-by-step instructions for OraQuick HCV Rapid Antibody Test, OraSure Technologies

### OHA

- Model Immunization Protocol ("standing orders") for Hepatitis A, 2021
- Hepatitis A Vaccine Information Statement (VIS)
- Pediatric HBV vaccination standing orders
- Adult HBV vaccination standing orders
- Pharmacy Protocol for pediatric hepatitis B vaccination
- Pharmacy Protocol for adult hepatitis B vaccination
- Hepatitis B Vaccine Information Sheet
- OSPHL Virology/Immunology Request Form
- OSPHL Specimen Transport Manifest

### CDC resources

- Surveillance for Viral Hepatitis—United States, 2017.
- CDC Recommendations for hepatitis C screening among adults—United States, 2020.

### Public Health Modernization

- Public Health Resilience, Response and Recovery, 2021.
- Public Health Modernization Manual: foundational capabilities and programs for public health in Oregon, 2017.

## UPDATE LOG

July 2022. Created (Thomas. A)

## ACRONYMS

ACDP: Acute and Communicable Disease Prevention
CCOs: Coordinated Care Organizations
DAAs: Direct Acting Antivirals
DHS: Department of Human Services
EIA: Enzyme Immunoassay Test
EMS: Emergency Medical Services
HAI: Healthcare-Acquired Infection
HAN: Health Alert Network
HBV: Hepatitis B Virus
HCC: Hepatocellular Carcinoma
HCV: Hepatitis C Virus
HIB: Health Intelligence Briefing
HIV: Human Immunodeficiency Virus
HSPR: Health Security Preparedness and Response
IDU: Injection Drug Use
IMT: Incident Management Team Response
LPHA: Local Public Health Authority
MOUD: Medication for Opioid Use Disorder
OIP: Oregon Immunization Program
OSPHL: Oregon State Public Health Lab
OTP: Opioid Treatment Program
PCR: Polymerase Chain Reaction
PIO: Public Information Officer
PRIME+: Peer recovery in medical establishments
PWID: People Who Inject Drugs
MOUD: Mediation for Opioid Use Disorder
RECs: Regional Emergency Coordinators
RNA: Ribonucleic Acid
SSP: Syringe Service Programs
SUD: Substance Use Disorder
UERT: Urgent Epi Response Team
VHP: Viral Hepatitis Program
VHPC: Viral Hepatitis Prevention Coordinator

**Appendix A: Brief case report form for cases <30 years of age**

# Brief HCV form

ORPHEUS

☐ Confirmed ☐ Suspect
☐ Presumptive ☐ No case

Name _____ County _____
LAST, First Initials AKA

Address _____
Street City State Zip

Phone number _____ / _____
home (H), work (W), cell (C), message (M) home (H), work (W), cell (C), message (M)

E-mail _____

ALTERNATE CONTACT _____

Name _____ Phone(s) _____
LAST, First Initials AKA home (H), work (W), cell (C), mes-

**Special housing**
☐ Nursing home/ Asst Living
☐ Homeless
☐ Prison
☐ Jail
☐ Foster home
☐ Hospital
☐ Drug treatment/ shelter
☐ Homeless shelter
☐ Job Corps
☐ Treatment center
☐ Migrant farm
☐ No address on file
☐ Other (specify)
_____

## DEMOGRAPHICS

DOB ___/___/___ if DOB unknown, AGE _____ Sex ☐ Female ☐ Male Preg ☐ Y ☐ N ☐ UNK

Language _____ Country of birth _____ ☐ refugee

Past year housing (check one) ☐ Stably housed ☐ Homeless ☐ Unstably housed ☐ Declined ☐ Unknown

Worksites/school/day care center _____ Occupation/grade _____

## RACE, ETHNICITY, LANGUAGE, AND DISABILITY (REALD)

**RACE AND ETHNICITY**

How do you identify your race, ethnicity, tribal affiliation, country of origin, or ancestry?

_____

Which of the following best describes your racial or ethnic identity? *Check **all** that apply.*)

**Amer Indian/ Alaska Native**
☐ American Indian
☐ Alaska Native
☐ Canadian Inuit, Metis First Nation
☐ Indigenous Mexican Central American South American

**HISPANIC or Latino/a/x**
☐ Central American
☐ Mexican
☐ South American
☐ Other Hispanic or Latino/a/x

**ASIAN**
☐ Asian Indian
☐ Chinese
☐ Filipino/a
☐ Hmong
☐ Japanese
☐ Korean
☐ Laotian
☐ South Asian
☐ Vietnamese
☐ Other Asian

If you selected more than one racial orethnic identity, circle the one that best represents your racial or ethnic identity. If you have more than one, primary racial or ethnic identity, please check here.

**Native Hawaiian/ Pacific Islander**
☐ Guamanian
☐ Chamorro
☐ Micronesian/Marshal lese/Palaun (COFA)
☐ Native Hawaiian
☐ Samoan
☐ Tongan
☐ Other Pacific Islander

**Black or African American**
☐ African American
☐ African (Black)
☐ Caribbean (Black)
☐ Other (Black)

**Middle Eastern Northern African**
☐ Northern African
☐ Middle Eastern

**White**
☐ Eastern European
☐ Slavic
☐ Western European
☐ Other White

**Other Categories**
☐ Other (please list)
_____
☐ Don't know
☐ Don't want to answer

## PROVIDERS, FACILITIES AND LABS

| Reporter Type | Reporter Name/Phone |
|---|---|
| Clinical Office | |
| Hospital | |
| ER | |
| Laboratory | |
| Care Facility | |

| Reporter Type | Reporter Name/Phone |
|---|---|
| Assisted Living | |
| Group home | |
| Long-term acute care | |
| Nursing home | |
| Inpatient rehab | |

☐ Ok to contact patient (only list once)

Local Epi _____

Date report received by LHD ___/___/___ LHD completion date ___/___/___ State completion date

CASE'S NAME

## BASIS OF DIAGNOSIS

### LABORATORY TESTS

Lab Name:_____ Date of blood draw ____/____/____

| | pos. | neg. | not done | unk |
|---|---|---|---|---|
| IgM anti-HAV | ☐ | ☐ | ☐ | ☐ |
| total anti-HAV | ☐ | ☐ | ☐ | ☐ |
| HBsAg | ☐ | ☐ | ☐ | ☐ |
| IgM anti-HBc | ☐ | ☐ | ☐ | ☐ |
| total anti-HBc | ☐ | ☐ | ☐ | ☐ |
| anti-HBs | ☐ | ☐ | ☐ | ☐ |
| HBV DNA (PCR) | ☐ | ☐ | ☐ | ☐ |
| HBeAg | ☐ | ☐ | ☐ | ☐ |
| anti-HCV | ☐ | ☐ | ☐ | ☐ |

anti-HCV signal to cut-off ratio _____

HCV RNA (PCR) ☐ ☐ ☐ ☐

HCV genotype _____

| | | Upper limit normal *(list reference value from lab slips)* |
|---|---|---|
| ALT (SGPT) | _____ | _____ |
| AST (SGOT) | _____ | _____ |
| Bilirubin | _____ | _____ |

Notes

## RISKS

Interviewed ☐ yes ☐ no Interview date:_____ Interviewed by _____

Who ☐ patient ☐ provider ☐ parent ☐ other

Reason not interviewed (choose one)

☐ not indicated ☐ unable to reach ☐ out of jurisdiction ☐ deceased

☐ refused ☐ physician interview ☐ medical record review

## EXPOSURE RISKS

Check all that apply.

| yes | no | ref | unk | |
|---|---|---|---|---|
| ☐ | ☐ | ☐ | ☐ | Has the patient ever injected drug not prescribed by a doctor, within the last 6 months |
| ☐ | ☐ | ☐ | ☐ | *if yes*, number of needle-sharing contacts in past 6 months _____ |

CASE'S NAME

## FOLLOW-UP

Check all that apply.

yes no ref unk

- ☐ ☐ ☐ ☐ Does the case have a provider?
- ☐ ☐ ☐ ☐ Patient seeing provider for chronic hepatitis C infection?
- ☐ ☐ ☐ ☐ Patient ever taken medication prescribed by doctor for chronic hepatitis C?
- ☐ ☐ ☐ ☐ Has the case ever had hepatitis A or B?
- ☐ ☐ ☐ ☐ Has the case ever been vaccinated for hepatitis A?
  *If yes*, date(s) ___/___/___ ___/___/___
- ☐ ☐ ☐ ☐ Has the case ever been vaccinated for hepatitis B?
  *If yes*, date(s) ___/___/___ ___/___/___
- ☐ ☐ ☐ ☐ Is the case insured?
- ☐ ☐ ☐ ☐ Case education provided? *If yes*, date ___/___/___

How was data collected for this case?

☐ fax ☐ phone ☐ fax ☐ in person ☐ medical record ☐ other ☐ unknown

## CONTACT MANAGEMENT AND FOLLOW-UP

*Ask about other needle-sharing contacts*.

☐ no needle-sharing contacts identified

| Name | DOB/Age | Sex | Address | Phone number | Contacted | HCV screening performed |
|---|---|---|---|---|---|---|
| _____ | ___/___/___ | ☐ M ☐ F | _____ | _____ | ☐Y ☐N | ☐Y ☐N |
| _____ | ___/___/___ | ☐ M ☐ F | _____ | _____ | ☐Y ☐N | ☐Y ☐N |
| _____ | ___/___/___ | ☐ M ☐ F | _____ | _____ | ☐Y ☐N | ☐Y ☐N |
| _____ | ___/___/___ | ☐ M ☐ F | _____ | _____ | ☐Y ☐N | ☐Y ☐N |

Please remember to fill out first page with more REALD data when performing in-person interviews.

Notes

## ADMINISTRATION

NOVEMBER 2022

*Remember to copy patient's name to the top of this*

Case report sent to OHA on ____/____/____

Completed by _____ Date _____ Phone _____ Investigation sent to OHA on

## Appendix B. Acute HCV case definition from OHA Investigative Guidelines

### Confirmed Acute Case Definition

An individual (> 36 months of age) with:

1. 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**

2. A documented negative HCV antibody or negative HCV detection test (in someone without a prior diagnosis of HCV infection) followed within 12 months by a positive HCV detection test (HCV RNA conversion) in the absence of a more likely diagnosis;

**OR**

3. 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.

### Presumptive Acute Case Definition

An individual (> 36 months of age) with:
1. Jaundice or a peak elevated serum alanine aminotransferase (ALT) level >200 IU/L or peak elevated total bilirubin levels ≥ 3.0 mg/dL;

**AND**

2. A positive anti-HCV antibody result;

**AND**

3. No evidence of anti-HCV or HCV RNA test conversion. (a new presumptive acute case may be reclassified as a confirmed acute case if a positive HCV viral detection test is reported in the same reporting year)

## Appendix C. Chronic hepatitis C case definition, from OHA Investigative Guidelines

### Confirmed Chronic Case Definition

1. A positive nucleic acid test (NAT) for HCV RNA (including qualitative, quantitative or genotype testing);

**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.

### Presumptive Chronic Case definition

1. A positive anti-HCV antibody test (includes rapid tests) but no report of a positive HCV 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.

Appendix D

# Hepatitis C - Acute

Orpheus ID

☐ confirmed
☐ presumptive
☐ suspect
☐ no case

Name _____
LAST, first, initials (a.k.a.)

COUNTY_____

Address _____
Street City Zip

Special housing
_____

Phone number _____ / _____ _____
home (H), work (W), cell (C), message (M) home (H), work (W), cell (C), message (M)

ALTERNATIVE CONTACT

Name _____
LAST, first,initials

Phone(s) _____
home (H), work (W), cell (C), message

## DEMOGRAPHICS

DOB ___/___/___
m d y

if DOB unknown, AGE _____

Sex ☐ female ☐ male

Language _____

Country of birth
_____

Worksites/school/day care center

_____

Occupation/grade _____

RACE (*check all that apply*)
☐ White
☐ Black
☐ Asian
☐ Pacific Islander
☐ American Indian/Alaska Native
☐ Unknown
☐ Other_____

HISPANIC
☐ Yes ☐ No
☐ unknown ☐ declined

## PROVIDERS, FACILITIES AND LABS

Reporter
☐_____
name and phone number

Type (circle one)
PMD Lab-fax
MDx Lab-phone
ER Lab-other
ICP HCP
Lab-ELR

Reporter
☐_____
name and phone number

Type (circle one)
PMD Lab-fax
MDx Lab-phone
ER Lab-other
ICP HCP
Lab-ELR

☐ Ok to contact patient (only list once)

Local epi name_____
Date report received by LHD ___/___/___
LHD completion date ___/___/___

## BASIS OF DIAGNOSIS

### CLINICAL DATA

DIAGNOSIS DATE ___/___/___

Symptomatic? ☐ yes ☐ no ☐ unk
*if yes*, ONSET DATE (first s/s) ___/___/___

Jaundiced ☐ yes ☐ no ___/___/___

Pregnant ☐ yes ☐ no ___/___/___
due date

Hospital Name:_____

Hospitalized from hepatitis ☐ yes ☐ no ___/___/___
admit date

Died from hepatitis ☐ yes ☐ no ___/___/___
date

### REASON FOR TESTING (check all that apply)

☐ Symptoms of acute hepatitis
☐ Screening of asymptomatic patient with reported risk factors
☐ Screening of asymptomatic patient with no risk factors (e.g., patient requested)
☐ Prenatal screening
☐ Evaluation of elevated liver enzymes
☐ Blood/organ donor screening
☐ Followup testing for previous marker of viral hepatitis
☐ Born between 1945-1965
☐ Unknown ☐ Other _____

### LABORATORY TESTS

Lab Name:_____ Date of blood draw ___/___/___

| | | pos. | neg. | not. done | unk |
|---|---|---|---|---|---|
| A | IgM anti-HAV | ☐ | ☐ | ☐ | ☐ |
| | total anti-HAV | ☐ | ☐ | ☐ | ☐ |
| B | HBsAg | ☐ | ☐ | ☐ | ☐ |
| | IgM anti-HBc | ☐ | ☐ | ☐ | ☐ |
| | total anti-HBc | ☐ | ☐ | ☐ | ☐ |
| | anti-HBs | ☐ | ☐ | ☐ | ☐ |
| | HBV DNA (PCR) | ☐ | ☐ | ☐ | ☐ |
| | HBeAg | ☐ | ☐ | ☐ | ☐ |
| C | anti-HCV | ☐ | ☐ | ☐ | ☐ |
| | Anti-HCV signal-to-cutoff ratio _____ | | | | |
| | HCV RNA (PCR) | ☐ | ☐ | ☐ | ☐ |
| | HCV genotype _____ | | | | |

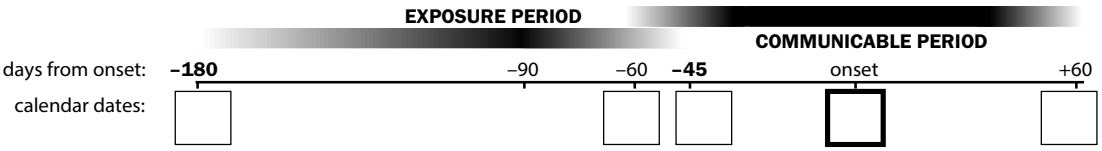
Upper limit normal
*(list reference value from lab slips)*

ALT (SGPT) _____ _____
AST (SGOT) _____ _____
Bilirubin _____ _____

CASE'S NAME _____

## INFECTION TIMELINE

Enter onset date (first sx) in heavy box. Count forwards and backwards to figure probable exposure and communicable periods.




(infectious until clearance of HBsAg—about 60 days for most adults—indefinitely for carrlers

Interviewed ☐ yes ☐ no Interview date(s) _____ Interviewed by _____

Wno ☐ patient ☐provider ☐ parent ☐ other

Reason not interviewed (choose one)

☐ not indicated ☐ unable to reach ☐ out of jursdiction ☐ deceased

☐ refused ☐ physician interview ☐ medical record review

## RISKS

Check all that apply. any of the situations below apply to case in 6 weeks to 6 months prior ot onset of symptoms

yes no ref unk

☐ ☐ ☐ ☐ Was the patient a close contact of an infectious confirmed or presumptive case?
*if yes,* type of contact
☐ sexual
☐ needle
☐ household (non-sexual)
☐ other _____

☐ ☐ ☐ ☐ organ transplant/artificial insemination

☐ ☐ ☐ ☐ IG recipient (any kind: IVIG, TIG, HBIG, etc.)

☐ ☐ ☐ ☐ hemodialysis patient

☐ ☐ ☐ ☐ diabetes
*if yes,* use a blood glucose monitor ☐ yes ☐ no
*if yes*, share a blood glucose monitor ☐ yes ☐ no
*if yes*, inject insulin ☐ yes ☐ no
*if yes,* share syringes or needles ☐ yes ☐ no

☐ ☐ ☐ ☐ needlestick or similar injury

☐ ☐ ☐ ☐ had exposure to someone else's blood specify that is_____

☐ ☐ ☐ ☐ transfusion/or other blood product recipient
*if yes,* date (m/d/y) ____/ ____ /____

☐ ☐ ☐ ☐ receive any infusions in outpatient setting

☐ ☐ ☐ ☐ dental work or oral surgery

☐ ☐ ☐ ☐ other surgery

☐ ☐ ☐ ☐ hospitalized

☐ ☐ ☐ ☐ employed in medical/dental field having contact with human blood
*if yes*, frequency of direct blood contact
☐ frequent (several times weekly)
☐ infrequently

☐ ☐ ☐ ☐ employed as a public safety worker (fire, police, corrections) having direct contact with human blood
*if yes*, frequency of direct blood contact
☐ frequent (several times weekly)
☐ infrequent

☐ ☐ ☐ ☐ resident of long-term care facility

☐ ☐ ☐ ☐ body piercing (other than ear)
*if yes*, where was it done
☐ commercial parlor/shop
☐ correctional facility
☐ self

Check all that apply.

yes no ref unk

☐ ☐ ☐ ☐ tatooing
*if yes*, where was it done
☐ commercial parlor/shop
☐ correctional facility
☐ self
☐ other _____

☐ ☐ ☐ ☐ incarcerated more than 24 hours
*if yes*, what type of facility
☐ prison
☐ jail
☐ juvenile facility

☐ ☐ ☐ ☐ any sexual contact
*if yes*, number of male sexual partners
☐ 0 ☐ 1 ☐ 2–5 ☐ >5 ☐ unk
*if yes*, number of female sexual partners
☐ 0 ☐ 1 ☐ 2–5 ☐ >5 ☐ unk

☐ ☐ ☐ ☐ uses street drugs, but does not inject

☐ ☐ ☐ ☐ injects drugs not prescribed by doctor
*if yes*, primary drug injected (select 1)
☐ methamphetamine/speed
☐ cocaine
☐ speedball (cocaine and heroin together)
☐ other _____
*if yes*, year of most recent drug use
_____

During his/her lifetime was patient EVER

☐ ☐ ☐ ☐ incarcerated more than 6 months
*if yes*, year of most recent incarceration
_____
for how many months _____

☐ ☐ ☐ ☐ treated for sexually transmitted disease
*if yes*, year of most recent treatment

CASE'S NAME

## FOLLOW-UP

Check all that apply.

yes no ref unk

☐ ☐ ☐ ☐ Case education provided?
*if yes*, date ___/___/___

☐ ☐ ☐ ☐ Did the case have a documented negative hepatitis C test in the previous 6 months (includes: anti-HCV, HCV RNA PCR)?
*if yes*, date of test (if exact date unknown, give best estimate) ___/___/___

☐ ☐ ☐ ☐ Does the case have a medical provider?

☐ ☐ ☐ ☐ Did the case have HCW performing invasive procedures?

How was data collected for this case?

☐ fax ☐ phone ☐ fax ☐ in person ☐ medical record ☐ other ☐ unknown

## CONTACT MANAGEMENT AND FOLLOW-UP

*Ask about other potential contacts (sexual, needle-sharing, etc.) within the period of communicability.*

☐ no other contacts identified ☐ contacts identified and individual case report forms file

HOUSEHOLD ROSTER

| Name | DOB/Age | Sex | Relation to case | Occupation | Education provided | Last exposure | Onset date | Interview date | Sick |
|---|---|---|---|---|---|---|---|---|---|
| | | ☐ M ☐ F | ☐ daycare ☐ friend ☐ household ☐ sexual | | | ___/___/___ | ___/___/___ | ___/___/___ | ☐Y ☐N |
| | | ☐ M ☐ F | ☐ daycare ☐ friend ☐ household ☐ sexual | | | ___/___/___ | ___/___/___ | ___/___/___ | ☐Y ☐N |
| | | ☐ M ☐ F | ☐ daycare ☐ friend ☐ household ☐ sexual | | | ___/___/___ | ___/___/___ | ___/___/___ | ☐Y ☐N |

## ADMINISTRATION

Orpheus January 2015

*Remember to copy patient's name to the top of this page.*

Case report sent to OHA on ____/____/____

Completed by _____ Date _____ Phone _____

Investigation sent to OHA on ____/____/____