

Hepatitis C (Acute and Chronic) Investigation Guideline

CONTENTS

Investigation Protocol:

- **Investigation Guideline**

Investigation Forms / Documentation Worksheets:

- **General Investigation Form**
- **Hepatitis C, Acute Supplemental Form**
- **Viral Hepatitis Supplemental Form**

Supporting Material:

- **Fact Sheet**

Hepatitis C (Acute & Past or Present)

Disease Control and Investigation Guidelines

CASE DEFINITION – Acute (CDC, 2007)

A. Clinical Description for Public Health Surveillance (Acute):

An acute illness with a discrete onset of any sign or symptom consistent with acute viral hepatitis (e.g., anorexia, abdominal discomfort, nausea, vomiting), and either a) jaundice, or b) serum alanine aminotransferase (ALT or SGPT) levels >400 IU/L.

B. Laboratory Criteria for Case Classification (Acute):

One or more of the following three criteria:

- 1) Antibodies to hepatitis C virus (anti-HCV) screening-test-positive with a signal to cut-off ratio predictive of a true positive as determined for the particular assay as defined by CDC. (URL for the signal to cut-off ratios: http://www.cdc.gov/ncidod/diseases/hepatitis/c/sc_ratios.htm),
OR
- 2) Hepatitis C Virus Recombinant Immunoblot Assay (HCV RIBA) positive,
OR
- 3) Nucleic Acid Test (NAT) for HCV RNA positive

AND, meets the following two criteria:

- 1) IgM antibody to hepatitis A virus (IgM anti-HAV) negative, AND
- 2) IgM antibody to hepatitis B core antigen (IgM anti-HBc) negative

3) Case Classification (Acute):

- Confirmed: A case that meets the clinical case definition; is laboratory confirmed and is not known to have chronic hepatitis C.

CASE DEFINITION – Past or Present * (CDC, 2005)

A. Clinical Description for Public Health Surveillance:

Most HCV-infected persons are asymptomatic; many have chronic liver disease, which ranges from mild to severe including cirrhosis and liver cancer.

B. Laboratory Criteria for Case Classification:

- IgM Anti-HCV positive (repeat reactive) by EIA, verified by a more specific assay (RIBA for anti-HCV or nucleic acid testing for HCV RNA), OR
- HCV RIBA positive, OR
- Nucleic acid test for HCV RNA positive, OR Report of HCV genotype, OR
- Anti-HCV screening-test-positive with a signal to cut-off ratio predictive of a true positive as determined for the particular assay (e.g., ≥ 3.8 for the enzyme immunoassays) as determined and posted by CDC.)

C. Case Classification:

- Confirmed: A case that is laboratory confirmed and that does not meet the case definition for acute hepatitis C.
- Probable: A case that is anti-HCV positive (repeat reactive) by EIA and has alanine aminotransferase (ALT or SGPT) values above the upper limit of normal, but the anti-HCV EIA result has not been verified by an additional more specific assay or the signal to cutoff ratio is unknown.

* "Hepatitis C, past or present" represents all chronic hepatitis C cases.

C. Laboratory Testing:

- Collection: Use a Serology Kit, Multi-tube Mailing Box with Yellow Top Blood Tubes
- Specimen: Serum
- Amount: 3-5 ml.
- Remarks: It is not required that specimens are forwarded to the Kansas Health and Environment Laboratories, but they are equipped to test for hepatitis B serology, if requested.
- For additional information and/or questions concerning specimen submission, collection/transport and laboratory kits call (785) 296-1620 or refer to online guidance at www.kdheks.gov/labs/packaging_and_shipping.html

D. Bioterrorism Potential: None.

E. Outbreak Definition:

The occurrence of ≥ 2 cases of acute hepatitis C in association with a common exposure is considered an outbreak.

INVESTIGATOR RESPONSIBILITIES

A. Investigation Related Tasks and Activities:

- 1) Confirm diagnosis with appropriate medical provider
 - Before contacting the patient, discuss with the health care provider what the patient has been told about his/her evaluation for disease.
 - Determine if the case has acute infection. Especially in persons aged 19-39 years; a group with the highest incidence of acute hepatitis C.:
 - Obtain information that supports clinical findings in case definition and onset date for an acute infection; or
 - If available, obtain information indicating history of chronic HCV.
 - Obtain information on laboratory tests performed and results, including information on serum alanine aminotransferase (ALT or SGPT) levels.
 - If patient hospitalized, obtain medical records, including admission notes, progress notes, lab report(s), and discharge summary.
- 2) For acute infections and all case classifications of children ≤ 18 years of age, conduct case investigation to identify potential source of infection.
- 3) To locate additional cases and/or contacts in the community, determine if case may have exposed others or may be likely to do so in the future.
- 4) Initiate control or prevention measures to prevent further spread of disease.
 - Provide education that includes basic information about the disease and way to prevent transmission of illness.
 - Recommend appropriate immunizations to cases.
- 5) Report all cases to the KDHE Office of Surveillance and Epidemiology, using established methods.

B. Notifications:

- No special notifications unless the case is associated with an outbreak. For

outbreaks, immediately notify the Local Health Officer, the local on-call epidemiologist and KDHE (1-877-427-7317).

- As appropriate, use the notification letter and the disease fact sheet to notify the case, contacts and other individuals or groups.

EPIDEMIOLOGY

Hepatitis C virus (HCV) has a worldwide distribution. In the United States, an estimated 3.2 million people are chronically infected with 19,000 people infected each year (2006 estimates). The highest incidence of acute infection is among persons 20-39 years of age. Prevalence is higher among injection drug users, inmates, and those with hemophilia, on long-term hemodialysis or who have received blood or organ products prior to June 1992.

DISEASE OVERVIEW

A. Agent:

An enveloped RNA virus causes hepatitis C infection. Several HCV genotypes have been identified, with type 1 being most common in the United States.

B. Clinical Description:

The clinical features, disease outcomes and/or progression of disease vary with the individual. Approximately 80% of all newly infected people experience no symptoms and are not diagnosed during the acute stage. Of those infected, 75-85% will develop chronic infection. Of those chronically infected, 10-20% will develop cirrhosis or cancer of the liver. Most remain asymptomatic for 10-20 years; some experience symptoms including: fatigue, headaches, joint aches, myalgia, nausea, jaundice, loss of appetite, and/or abdominal pain.

C. Reservoirs:

Humans

D. Mode(s) of Transmission:

A bloodborne pathogen predominantly spread via percutaneous exposure to contaminated blood or blood products. Currently, the most prevalent mode of transmission is sharing needles or syringes to inject drugs. Blood transfusions pose an extremely limited risk, but for those patients who received a blood transfusion prior to June 1992, the risk was approximately 1 in 200 transfused units. Sexual transmission of HVC is not an efficient mode of transmission.

E. Incubation Period:

Ranges from 2 weeks to 6 months; average 6-9 weeks.

F. Period of Communicability:

For one or more weeks before onset of first symptoms; may persist in most persons indefinitely. Peak virus concentration correlates with ALT activity.

G. Susceptibility and Resistance:

Susceptibility is general; degree of immunity following infection is unknown.

H. Treatment

There is no specific therapy for acute cases. Treatment of chronic hepatitis C

with interferon with or without ribavirin is indicated for some individuals and may result in a sustained response with elimination of virus in 20-40% of those receiving a full 6-12 months of treatment. However, both of these medications have significant side effects that require careful monitoring.

STANDARD CASE INVESTIGATION AND CONTROL METHODS

Case investigations are warranted for acute cases and ALL cases < 40 years, with children ≤ 18 years of age investigated regardless of case classification and cases aged 19-39 years of age investigated to determine if they are an acute case.

Standard investigation activities include the following:

- 1) Confirmation of diagnosis using case definition.
- 2) Collection of demographic data (birth date, county, sex, race/ethnicity)
- 3) Collection of clinical data to identify acute cases:
 - Illness onset date,
 - Jaundice (yes/no),
 - Other symptoms, and
 - Lab results supporting case definition; including serum alanine aminotransferase (ALT or SGPT) levels.
- 4) Determination of risk factors (e.g., illicit drug use, medical treatment, inmates);
- 5) Investigation of epi-links among cases (cluster, household, co-workers, etc).

For acute Hepatitis C cases, newly diagnosed chronic hepatitis C cases (that have never been reported as acute or chronic) and all hepatitis C cases in those aged ≤18 years, standard investigation **includes** completion of the General Investigation Form and a viral hepatitis supplemental form.

Additional investigative activity may include:

A. Acute Case Investigation - Identify Potential Source of Infection:

Focus within the incubation period and on potential source(s) of infection:

- Contact with confirmed or suspect HCV case within 2 weeks -6 months prior to onset. List the name and address of suspect case and note relationship to case (sexual, household, other).
- 6 months before to onset, number of male and/or female sex partners.
- Sexually transmitted disease diagnosis; date of recent treatment.
- During 2 weeks -6 months prior to symptom onset; the case:
 - Injected drugs not prescribed or used street drugs not injected.
 - Received tattoo, body piercing, acupuncture, electrolysis or self-injections (suspected or admitted); specify when and location of provider
 - Had hemodialysis, dental work or oral surgery, any other surgery; specify when and location of provider
 - Received blood or blood products; specify when and location
 - Received IV infusions and/or injections in an outpatient setting; location
 - Had a stick / puncture with needle or other blood contaminated object
 - Had exposure to someone else's blood; specify
 - Was hospitalized, resident of long-term care, or incarcerated >24 hours
- At-risk occupation, 2 weeks-6 months prior to symptom onset (medical or

- dental field or public safety worker); note frequency of blood exposure
- Any incarceration for ≥ 6 months during lifetime; most recent, how long
 - Hepatitis C status of mother if case is less than ≤ 5 year of age.
 - Identify pregnancy status of all HCV positive women of childbearing age.

B. Contact Investigation – Identify Exposed Individuals / Populations:

- Consider the following types of contacts during the contact investigation:
 - Household members.
 - Children born to HCV positive mothers.
 - Individuals with mucosal or percutaneous exposure to infectious body fluid of an infections person. Including recipients of blood or plasma.
 - Sexual partners of HCV positive individuals.
- Determine if case has donated blood or plasma ≤ 3 months prior to onset.

C. Isolation, Work and Daycare Restrictions

To prevent exposure to blood and body fluids, follow universal precautions.

D. Case Management, Including Follow-up of cases:

- Educate acute cases on measures to avoid disease transmission and the possibility of chronic disease.
- Counsel chronic carriers on measures to avoid disease transmission, including risks to newborns, and measures to take to protect the liver.
- Cases with identified risk factors of injection drug use and/or multiple sex partners should also be evaluated for hepatitis B and HIV.

E. Contact Management, Including Protection of Contacts:

- Protection or prophylaxis: None.
- Provide education on avoiding further exposures and to ensure proper medical care is obtained and precautions taken if symptoms develop.
 - Inform persons who shared needles with the case or might have otherwise had contact with blood about the signs and symptoms of hepatitis C; advise them to seek medical care.
 - Children born to HCV positive mothers should be tested: HCV RNA at 1-2 months of age or Anti-HCV at 18 months of age. Consider testing other children for infection.
 - Sexual and household contacts should be queried about recent signs and symptoms of hepatitis; those with symptoms should be referred for medical follow-up. The likelihood of transmission is low, but not zero.

F. Environmental Measures:

- None, unless a health care or long-term care facility or a facility that provides tattoo, body piercing, cosmetic procedures or alternative medical procedures is implicated in transmission. In which case, an inspection of the facility should be coordinated through the proper regulatory agency.

G. Education:

- Provide counseling on the importance of appropriate medical care.

- Cases should be advised on the risk of transmitting HCV to others, specific instructions include:
 - Cases should not donate blood, semen, body organs or tissue.
 - Cases should not share personal items that may be contaminated with blood and cover all cuts and sores.
 - Although sexual transmission is rare, condom use should be discussed and encouraged especially if there are multiple partners to consider.
 - Injecting drug users should be encouraged to stop using drugs and advised not to share needles, syringes or other drug paraphernalia.
- Encourage cases on the necessity of protecting their liver, specific instructions include:
 - Avoid alcohol, as consumption aggravates HCV infection.
 - No new medication (including OTC) medicines should be used without the consent of a physician.
 - Hepatitis A and B vaccines should be given, as concurrent infection with serious complication could arise.
- HCV-positive women do NOT need to avoid pregnancy or breastfeeding.

MANAGING SPECIAL SITUATIONS

A. Outbreak Investigation:

- Notify KDHE immediately, 1-877-427-7317.
- Active case finding will be an important part of any investigation.

B. Needlestick and Similar Exposures:

The risk of HCV transmission to a health care worker is real; but currently there is not anything that can be done medically after the fact. Persons who suffer such injuries should have a baseline blood sample collected with testing again at 6 months.

C. Case Is a Health Care Worker:

If the case is a dentist, physician, nurse, or other health care worker with potential for exposing patients by blood or other body fluids the person should be discouraged from working until the acute clinical illness has resolved. Upon return to work, special precautions should be practiced until the HCW is no longer infectious, including:

- Wearing gloves for all procedures during which the hands will be in contact with the patients' mucosal surfaces or broken skin.
- Avoiding situations involving sharps that could lead to exposures of blood or objects contaminated with blood of the case.
- Careful and frequent hand washing.

D. Case Is a Recent Blood or Plasma Donor:

If the case has donated blood or plasma ≤ 3 months prior to onset of symptoms, notify the Office of Surveillance and Epidemiology with the relevant information about the blood bank or plasma center and necessary identification information (e.g., date, identifiers, etc.) so that the agency that received the blood or plasma may be notified and any unused product can be recalled.

DATA MANAGEMENT AND REPORTING TO THE KDHE

A. Organize, collect and report data utilizing the following forms:

- Acute hepatitis C case and all cases \leq 18 years of age:
 - General Investigation Form(s)
 - Viral Hepatitis, Acute Supplemental Form
 - Or Viral Hepatitis Supplemental Form for chronic case \leq 18 years.
- Past or present hepatitis C case, with follow-up needed (i.e. not previously reported):
 - General Investigation Form(s)
 - Viral Hepatitis Supplemental Form
 - Clinical and Diagnostic Data Section – information that indicates case does not have an acute infection; may need to provide notes with additional supporting information collected during investigation.
- Past or present hepatitis C case, previously reported
 - A case in which the spelling of the name and date of birth (DOB) match an older case in the surveillance system are considered previously reported. The new report will not be entered into the system and no review is needed at the local level.
 - If there is a discrepancy, with the spelling of the name or the DOB, the local investigator will need to investigate to identify if the case is a previously reported case or is actually a new case of hepatitis C (i.e., through verification of name and DOB).

B. Report data electronically via KS-EDSS or by fax, include:

- At a minimum, all data collected that helps to confirm or classify a case.
- All information collected on the General Investigation and supplemental form(s).

Note: Laboratory reports not supporting an acute hepatitis C infection are initially reported in the KS-EDSS as “Hepatitis C Infection, Past or Present.” Information from the investigation may result in changing the event to “Hepatitis C, Acute.”

For cases reported as acute and \geq 6 months later be determined to have converted to chronic, the initial “Hepatitis C, Acute” event will remain. A second event “Hepatitis C Infection, Past or Present” will be entered. The KS-EDSS ID# for the first event will be noted under the new event.

Chronic (Hepatitis C, Past or Present) cases are not closed in KS-EDSS; but, after the investigation is completed, can be marked as “Reviewed” under investigation status. This will remove the case from the new and active case listings.

ADDITIONAL INFORMATION / REFERENCES

- A. Treatment / Differential Diagnosis:** American Academy of Pediatrics. 2006 Red Book: Report of the Committee on Infectious Disease, 27th Edition. Illinois, Academy of Pediatrics, 2006.
- B. Epidemiology, Investigation and Control:** Heymann. D., ed., Control of Communicable Diseases Manual, 18th Edition. Washington, DC, American Public Health Association, 2004.
- C. Case Definitions:** CDC Division of Public Health Surveillance and Informatics, Available at: http://www.cdc.gov/ncphi/diss/nndss/casedef/case_definitions.htm
- D. CDC GUIDELINES FOR VIRAL HEPATITIS SURVEILLANCE AND CASE MANAGEMENT, January 2005:**
http://www.cdc.gov/ncidod/diseases/hepatitis/resource/PDFs/revised_GUIDELINES_formatted5.pdf
- E. KDHE Viral Hepatitis:** <http://www.kdheks.gov/epi/hepatitis.htm>
- F. Additional Information (CDC):** <http://www.cdc.gov/health/default.htm>

Kansas Disease Investigation Guidelines

General Investigation Form

Investigation Information		
Case Type: <input type="checkbox"/> Human Case <input type="checkbox"/> Non-human Case	Disease Name: _____	
Classification: <input type="checkbox"/> Suspect <input type="checkbox"/> Probable <input type="checkbox"/> Confirmed	KS-EDSS Investigation ID: _____	
Outbreak: <input type="checkbox"/> Yes <input type="checkbox"/> No	Outbreak Name: _____	Outbreak #: _____
Onset Date: _____	Diagnosis Date: _____	Report Date: _____
Assigned to (Investigator): _____	Patient Died: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	
Patient Information		
Name Type: <input type="checkbox"/> Default/Common <input type="checkbox"/> Legal <input type="checkbox"/> Maiden <input type="checkbox"/> Nickname		
Last: _____	First: _____	Middle: _____
Street: _____	City/State: _____	Zip: _____
Evening Phone #: _____	Daytime Phone #: _____	
Sex: <input type="checkbox"/> Failure to Report <input type="checkbox"/> Female <input type="checkbox"/> Male <input type="checkbox"/> Other <input type="checkbox"/> Transexual <input type="checkbox"/> Unknown		
Race: <input type="checkbox"/> American Indian or Alaska Native <input type="checkbox"/> Asian <input type="checkbox"/> Black or African American <input type="checkbox"/> Native Hawaiian or Other Pacific Islander <input type="checkbox"/> White <input type="checkbox"/> Unknown		
Hispanic / Latino Ethnicity: <input type="checkbox"/> Yes <input type="checkbox"/> No		
Date of Birth: _____	Age: _____	Age Unit: <input type="checkbox"/> Days <input type="checkbox"/> Weeks <input type="checkbox"/> Months <input type="checkbox"/> Years
Parent Information (if under 18)		
Last: _____	First: _____	Middle: _____
Street: _____	City/State: _____	Zip: _____
Evening Phone #: _____	Daytime Phone #: _____	
Work / Occupation or School / Grade		
Worksites / School: _____		
Occupations / Grade: _____		
Travel History		
1st	Destination: _____	Depart Date: _____ Return Date: _____
2nd	Destination: _____	Depart Date: _____ Return Date: _____
3rd	Destination: _____	Depart Date: _____ Return Date: _____
4th	Destination: _____	Depart Date: _____ Return Date: _____

Supplemental Laboratory Report Form

Lab Reports

Laboratory Name: _____

Lab Report Date: _____

Ordering Provider Name: _____

Phone: _____

Facility: _____

Specimen Accession Number: _____

Specimen Collection Date: _____

Organism Name: _____

Organism Species: _____

Organism Serogroup: _____

Organism Serotype: _____

PFGE Results

Pattern 1 KS: _____

Other State: _____

CDC: _____

Pattern 2 KS: _____

Other State: _____

CDC: _____

Pattern 3 KS: _____

Other State: _____

CDC: _____

Additional Results Information

Reported Test Name:

Coded Result:

Text Result:

Numeric Result:

Comments:

Supplemental Contact Form

Contacts

Last: _____ **First:** _____ **Middle:** _____

Street: _____ **City/State:** _____ **Zip:** _____

Evening Phone #: _____ **Daytime Phone #:** _____ **E-mail:** _____

Sex: Failure to Report Female Male Other Transexual Unknown

Race: American Indian or Alaska Native Asian Black or African American Native Hawaiian or Other Pacific Islander White Unknown

Hispanic / Latino Ethnicity: Yes No

Date of Birth: _____ **Age:** _____ **Age Unit:** Days Weeks Months Years

Worksites / School: _____

Occupations / Grade: _____

Exposure Information

Contact Type: Household Sexual Other: _____ **Partner / Cluster Code:** _____

Date of First Exposure: _____ **Date of Last Exposure:** _____ **Frequency:** _____

Nature of Exposure: _____ **Comments:** _____

Testing and Treatment Information

Clinic Code: _____ **Examination Date:** _____

Examination Test: _____ **Examination Result:** _____

Prophylaxis/empiric treatment date: _____ **Drug / Dosage:** _____

Provider (Name / Facility): _____

Disposition and Diagnosis Information

Initiation Date: _____ **Disposition Date:** _____ **Disposition:** _____

Diagnosis: _____ **Referral Type:** Patient Provider **Post-test Counseled :** Yes No

Currently Assigned To: _____ **Follow-up Date:** _____

Risk Factors

Pregnant: Yes No **If Yes, # of Weeks:** _____

Risk factors for complications in contact: None Pregnant Woman HIV Seropositive Unimmunized Index case is a super-spreader

Child younger than 5 Age > 65 Otherwise immunosuppressed (s/p transplant, high dose steroids, etc)

Hepatitis C, acute Supplemental Form

Kansas Department of Health

Epidemiologic Case History

* indicates required fields

Case Type* <i>Human Case Non Human Case</i>	Classification* <i>Confirmed Not a Case Probable Suspect Deleted Unknown</i>
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Supplemental Form Status <i>Not Done Form Complete Form in Progress Form Approved Form Sent to CDC</i>
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Report Date* <small>mm/dd/yyyy</small>
--

Patient Demographic Information

* indicates required fields

Last Name*	First Name*	Middle Name	Name Type*	Age
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Age Unit <i>Days Weeks Months Years</i>	Date of Birth <small>mm/dd/yyyy</small>
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Race* <small>(Check all that apply)</small>			
<i>American Indian or Alaska Native</i>	<i>Asian</i>	<i>Black or African American</i>	
<i>Native Hawaiian or Other Pacific Islander</i>	<i>White</i>	<i>Unknown</i>	

Ethnicity* <i>Hispanic or Latino Not Hispanic or Latino Unknown</i>

Sex* <i>Failure to Report Female Male Other Transexual Unknown</i>

Street Address

City	County	State	Zip
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Evening Phone <small>###-###-####</small>	Daytime Phone <small>###-###-####</small>
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Occupation

Person Providing Report

Name of Reporting Facility*

Clinical and Diagnostic Data

Was the patient Jaundiced? <i>Yes No Unknown</i>	Date of Onset <small>mm/dd/yyyy</small>	Was the patient pregnant? <i>Yes No Unknown</i>	Due date: <small>mm/dd/yyyy</small>
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Epidemiologic Information

Ask both of the following questions regardless of the patient's gender. IN THE 6 MONTHS BEFORE SYMPTOM ONSET HOW MANY:

Male sex partners did the patient have? 0 1 2-5 >5 Unknown	Female sex partners did the patient have? 0 1 2-5 >5 Unknown
--	--

Was the patient EVER treated for a sexually transmitted disease?

Yes No Unknown

If yes, which disease(s): <small>(Check all that apply)</small> Syphilis Gonorrhea Chlamydia Other, specify _____	If yes, in what year was the most recent treatment? YYYY
---	--

During the 2 weeks - 6 months prior to onset of symptoms:

Did the patient inject drugs not prescribed by a doctor? Yes No Unknown	Did the patient use street drugs, but not inject? Yes No Unknown
---	--

Did the patient undergo hemodialysis? Yes No Unknown	Did the patient have an accidental stick or puncture with a needle or other object contaminated with blood? Yes No Unknown	If yes, when? mm/dd/yyyy
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Did the patient receive blood or blood products (transfusion)? Yes No Unknown	If yes, when? mm/dd/yyyy	If Yes, where?
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Did the patient receive any IV infusions and/or injections in the outpatient setting? Yes No Unknown	Did the patient have other exposure to someone else's blood? Yes No Unknown
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If Yes, specify:	Was the patient employed in a medical or dental field involving direct contact with human blood? Yes No Unknown	If yes, frequency of direct blood contact: Frequent (several times weekly) Infrequent
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Was the patient employed as a public safety worker (fire fighter, law enforcement or correctional officer) having direct contact with human blood?

Yes No Unknown

If yes, frequency of direct blood contact: Frequent (several times weekly) Infrequent	If yes, specify health field:	If yes, specify facility of employment:
--	--------------------------------------	--

Did the patient receive a tattoo? Yes No Unknown	If yes, where was the tattooing performed? <small>(Check all that apply)</small> Commercial parlor/shop Correctional facility Other (specify) _____
--	--

Did the patient have any part of their body pierced (other than ear)?

Yes No Unknown

If yes, where was the piercing performed?
(Check all that apply)

Commercial parlor/shop Correctional facility Other (specify) _____

Did the patient have dental work or oral surgery? Yes No Unknown	If yes, indicate facility:
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Did the patient have surgery? (other than oral surgery) Yes No Unknown	Was patient hospitalized because of this illness? Yes No Unknown
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Was the patient a resident of a long term care facility? Yes No Unknown	If yes, indicate facility:
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Epidemiologic Information cont.

Was the patient incarcerated for longer than 24 hours? <i>Yes No Unknown</i>	If yes, what type of facility? (Check all that apply) <i>Prison Jail Juvenile facility</i>	Name of facility:
During his/her lifetime, was the patient EVER incarcerated for longer than 6 months? <i>Yes No Unknown</i>	If yes, what year was the most recent incarceration? yyyy	If yes, for how long? (months)

Viral Hepatitis Supplemental Form

Hepatitis C Virus Infection Case Report

Kansas Department of Health

Epidemiologic Case History

* indicates required fields

Case Type* <i>Human Case Non Human Case</i>	Classification* <i>Confirmed Not a Case Probable Suspect Deleted Unknown</i>
--	---

Supplemental Form Status <i>Not Done Form Complete Form in Progress Form Approved Form Sent to CDC</i>
--

Report Date* <small>mm/dd/yyyy</small>
--

Patient Demographic Information

* indicates required fields

Last Name*	First Name*	Middle Name	Name Type*	Age
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Age Unit <i>Days Weeks Months Years</i>	Date of Birth <small>mm/dd/yyyy</small>
--	---

Race* <small>(Check all that apply)</small>			
<i>American Indian or Alaska Native</i>	<i>Asian</i>	<i>Black or African American</i>	
<i>Native Hawaiian or Other Pacific Islander</i>	<i>White</i>	<i>Unknown</i>	

Ethnicity* <i>Hispanic or Latino Not Hispanic or Latino Unknown</i>

Sex* <i>Failure to Report Female Male Other Transsexual Unknown</i>
--

Street Address

City	County	State	Zip
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Evening Phone <small>###-###-####</small>	Daytime Phone <small>###-###-####</small>
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Occupation

Person Providing Report

Name of Reporting Facility*

Clinical and Diagnostic Data

Reason for Testing:

(Check all that apply)

Symptoms of acute hepatitis

Evaluation of elevated liver enzymes

Screening of asymptomatic patient with reported risk factors

Blood / organ donor screening

*Screening of asymptomatic patient with no risk factors
(e.g., patient requested)*

Follow-up testing for previous marker of viral hepatitis

Prenatal screening

Unknown

Other _____

Clinical Data			Was the patient
Diagnosis Date: <small>mm/dd/yyyy</small>	Is the patient symptomatic? <i>Yes No Unknown</i>	If yes, date of onset: <small>mm/dd/yyyy</small>	Hospitalized for hepatitis? <i>Yes No Unknown</i>

Diagnostic Tests (Complete for all that apply):

Total antibody to hepatitis A virus [total anti-HAV]
Positive Negative Unknown

Epidemiologic Information

The following questions are provided as a guide for the investigation of lifetime risk factors for HCV infection. Routine collection of risk factor information for persons who test HCV positive is not required. However, collection of risk factor information for such persons may provide useful information for the development and evaluation of programs to identify and counsel HCV-infected persons.

Did the patient receive a blood transfusion prior to 1992? <i>Yes No Unknown</i>	Did the patient receive an organ transplant prior to 1992? <i>Yes No Unknown</i>
Did the patient receive clotting factor concentrates produced prior to 1987? <i>Yes No Unknown</i>	Was the patient ever on long-term hemodialysis? <i>Yes No Unknown</i>
Has the patient ever injected drugs not prescribed by a doctor even if only once or a few times? <i>Yes No Unknown</i>	How many sex partners has the patient had (approximate lifetime)?
Was the patient ever incarcerated? <i>Yes No Unknown</i>	If Yes, where?
Was the patient EVER treated for a sexually transmitted disease? <i>Yes No Unknown</i>	
Was the patient ever a contact of a person who had hepatitis? <i>Yes No Unknown</i>	If yes, type of contact: <i>Sexual Household (Non-sexual) Other _____</i>
Was the patient ever employed in a medical or dental field involving direct contact with human blood? <i>Yes No Unknown</i>	

Public Health Fact Sheet

Hepatitis C

What is hepatitis C?

Hepatitis C is a liver disease caused by the hepatitis C virus (HCV). HCV is spread by contact with the blood of an infected person.

How is hepatitis C spread?

Hepatitis C virus (HCV) is spread by direct contact with human blood. For example, you may have gotten infected with HCV if:

- You ever injected street drugs, as the needles and/or other drug "works" used to prepare or inject the drug(s) may have had someone else's blood that contained HCV on them.
- You received blood, blood products, or solid organs from a donor whose blood contained HCV.
- You were ever on long-term kidney dialysis as you may have unknowingly shared supplies/equipment that had someone else's blood on them.
- You were ever a healthcare worker and had frequent contact with blood on the job, especially accidental needlesticks.
- Your mother had hepatitis C at the time she gave birth to you.
- You ever had sex with a person infected with HCV.
- You lived with someone who was infected with HCV and shared items such as razors or toothbrushes that might have had his/her blood on them.

How serious is hepatitis C?

Hepatitis C infection can be very serious. Most people that become infected will carry the virus for the rest of their lives. Some will develop liver damage and feel sick while others may feel healthy for years after being diagnosed. In some people, the virus may cause cirrhosis (scarring of the liver) and/or liver cancer.

Is there a treatment for hepatitis C?

A drug called interferon may be used to treat hepatitis C; it is usually used in combination with other drugs, such as Ribavirin. It is recommended that persons infected with hepatitis C be vaccinated for both hepatitis A and hepatitis B.

Can hepatitis C be prevented?

There is no vaccine for hepatitis C. The best way to keep from getting infected is to avoid any contact with blood. This includes not sharing needles, razors, or toothbrushes. It can be spread by sex, but this does not occur very often. Latex condoms should be used correctly and every time if you are having sex that is not with one steady partner. The efficacy of latex condoms in preventing infection with HCV is unknown, but their proper use may reduce transmission of HCV and does reduce the transmission of other sexually transmitted diseases.

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Should patients with HCV change their practices if they have only one long-term steady sex partner?

There is a very low chance of spreading HCV to that partner through sexual activity. To lower the small chance, you may decide to use latex condoms. Ask your doctor about having your sex partner tested.

To prevent the spread of hepatitis C:

- If you shoot drugs, never share works with anyone. Don't share cocaine or other snorting straws, since these can get blood on them too. Find out about treatment programs that can help you stop using drugs.
- Use a latex condom every time you have sex.
- Only get tattoos or body piercing from places using sterile equipment and fresh ink for each customer.
- Health care workers and people who clean in places where needles or sharps are used should follow standard (universal) precautions.

What about other kinds of hepatitis?

There are several different kinds of hepatitis viruses. If you have had one type, you can still get any of the others. The hepatitis A virus is spread by feces (stool) through close personal contact or contaminated food and water. The hepatitis B virus is spread through blood and body fluids, like semen. There are vaccines to protect you from hepatitis A and B infections. If you have hepatitis C, ask your doctor about being vaccinated for hepatitis A and B.

What can persons with HCV infection do to protect their liver?

- Stop using alcohol.
- See your doctor regularly.
- Don't start any new medicines or use over-the-counter, herbal, and other medicines without a physician's knowledge.
- Get vaccinated against hepatitis A and hepatitis B.

What other information should patients with hepatitis C be aware of?

- HCV is not spread by sneezing, hugging, coughing, food or water, sharing eating utensils or drinking glasses, or casual contact.
- Persons should not be excluded from work, school, play, child-care or other settings on the basis of their HCV infection status.
- Involvement with a support group may help patients cope with hepatitis C.

Where can I get more information?

- Your Local Health Department
- Kansas Department of Health and Environment, Office of Surveillance and Epidemiology (877) 427-7317
- <http://www.cdc.gov/health/default.htm>
- Your doctor, nurse, or local health center

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