

## 11-ID-05

**Committee:** Infectious Disease

**Title:** Public Health Reporting and National Notification for Acute Hepatitis C

### I. Statement of the Problem

The acute hepatitis C case definition is in need of revision to better align terminology across the acute viral hepatitis, improve the list of disease specific data elements and criteria for case ascertainment. Currently it does not capture documented seroconversions occurring within a six month time period for asymptomatic persons.

### II. Background and Justification

#### *Background<sup>1</sup>*

Although only 802 cases of confirmed acute hepatitis C were reported in the United States in 2006, CDC estimates that approximately 19,000 new HCV infections occurred that year, after adjusting for asymptomatic infection and underreporting. Persons newly infected with HCV are usually asymptomatic, so acute hepatitis C is rarely identified or reported. HCV is transmitted primarily through large or repeated percutaneous exposures to infectious blood, such as injection drug use, receipt of donated blood, blood products, and organs, needlestick injuries, poor injection safety practices in healthcare settings, and birth to an HCV-infected mother. HCV can also be spread infrequently through sex with an HCV-infected person, or sharing personal items contaminated with infectious blood. As there is no vaccine available to prevent acute hepatitis C infection, reporting is particularly needed to identify outbreaks related to invasive medical procedure so that control measures can be implemented.

#### *Justification*

Acute hepatitis C meets the following criteria for a nationally and standard notifiable condition, as specified in CSTE position statement 08-EC-02:

- A majority of state and territorial jurisdictions—or jurisdictions comprising a majority of the US population—have laws or regulations requiring standard reporting of acute hepatitis C to public health authorities
- CDC requests standard notification of acute hepatitis C to federal authorities.
- CDC has condition-specific policies and practices concerning the agency's response to, and use of, notifications.

### III. Statement of the desired action(s) to be taken

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<sup>1</sup> Much of the material in the background is directly quoted from the CDC's hepatitis C website. See the References for further information on this source.

CSTE requests that CDC adopt this standardized reporting definition for acute hepatitis C to facilitate more timely, complete, and standardized local and national reporting of this condition.

**IV. Goals of Surveillance**

To provide information on the temporal, geographic, and demographic occurrence of acute hepatitis C to facilitate its prevention and control.

**V. Methods for Surveillance:**

Surveillance for acute hepatitis C should use the following recommended sources of data and the extent of coverage listed in Table V.

**Table V.** Recommended sources of data for case identification and extent of coverage for ascertaining cases of acute hepatitis C.

Source of data for case ascertainment	Coverage	
	Population-wide	Sentinel sites
clinician reporting	X	
laboratory reporting	X	
reporting by other entities (e.g., hospitals, veterinarians, pharmacies)	X	
death certificates	X	
hospital discharge or outpatient records	X	
extracts from electronic medical records	X	
telephone survey		
school-based survey		
other _____		

**VI. Criteria for case identification**

**A. Narrative: A description of suggested criteria for case ascertainment of acute hepatitis C.**

Report any illness to public health authorities that meets any of the following criteria:

Clinical evidence: A person who is acutely ill with jaundice. Associated symptoms might include: fever, headache, malaise, anorexia, nausea, vomiting, diarrhea, or abdominal pain.

Acute clinical presentation is not required to meet the case definition if there is a documented positive HCV lab test result within 6 months of a documented negative antibody test.

**AND/OR**

Laboratory evidence:

A person with elevated serum aminotransferase levels (ALT or AST)<sup>2</sup> who has tested positive for antibodies to hepatitis C virus (anti-HCV), **OR**

A person with 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/hepatitis/HCV/LabTesting.htm>), **OR**

is hepatitis C virus recombinant immunoblot assay (HCV RIBA) positive, **OR**

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

Clinical data: A person whose healthcare record contains a diagnosis of acute hepatitis C.

Administrative data: A person whose death certificate lists acute hepatitis C as a cause of death or a significant condition contributing to death.

*Other recommended reporting procedures*

- All cases of acute hepatitis C should be reported.
- Reporting should be on-going and routine.
- Frequency of reporting should follow the state health department's routine schedule.

**B. Table of criteria to determine whether a case should be reported to public health authorities:**

**Table VI-B.** Table of criteria to determine whether a case should be reported to public health authorities. Requirements for reporting are established under State and Territorial laws and/or regulations and may differ from jurisdiction to jurisdiction. These criteria are suggested as a standard approach to identifying cases of this condition for purposes of reporting, but reporting should follow State and Territorial law/regulation if any conflicts occur between these criteria and those laws/regulations.

<b>Criterion</b>	<b>Reporting</b>		
<i>Clinical evidence</i>			
Acute onset		N	
Jaundice		N	
Fever		O	
Headache		O	
Malaise		O	

<sup>2</sup> Alanine aminotransferase (ALT), aspartate aminotransferase (AST)

Anorexia		O	
Nausea		O	
Vomiting		O	
Diarrhea		O	
Abdominal Pain		O	
<i>Clinical and Administrative Data</i>			
Healthcare record contains a diagnosis of acute hepatitis C	S		
Death certificate lists acute hepatitis C as a cause of death or a significant condition contributing to death	S		
<i>Laboratory evidence</i>			
Elevated serum aminotransferase levels (ALT or AST)		O	N
A person with 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: <a href="http://www.cdc.gov/hepatitis/HCV/LabTesting.htm">http://www.cdc.gov/hepatitis/HCV/LabTesting.htm</a> )		O	O
Hepatitis C Virus Recombinant Immunoblot Assay (HCV RIBA) positive		O	O
Nucleic Acid Test (NAT) (including qualitative, quantitative or genotype testing) for HCV RNA positive		O	O

Notes:

S = This criterion alone is sufficient to report a case

N = This criterion in conjunction with all other “N” and any “O” criteria in the same column is required to report a case.

O = At least one of these “O” criteria in each category in the same column (e.g., clinical presentation and laboratory findings)—in conjunction with all other “N” criteria in the same column—is required to report a case.

### C. Disease Specific Data Elements:

Disease-specific data elements to be included in the initial report are listed below.

Symptoms of viral hepatitis

Serum aminotransferase levels

#### *Epidemiological Risk Factors*

*During the 2 weeks to 6 months prior to the onset of symptoms did the patient:*

Have contact with a person diagnosed with acute or chronic hepatitis C

Undergo hemodialysis

Have an accidental stick or puncture with a sharps contaminated with blood or body fluids

Receive blood or blood products

Product

Date

Undergo surgery or other medical procedures  
Undergo dental procedure  
Receive any IV infusions and/or injections in an outpatient setting  
Have contact with someone else's blood  
Receive a tattoo or body piercing  
Inject or use non-prescription drugs  
Receive treatment for a sexually-transmitted infection

*Patient History*

Previous testing for Hepatitis C  
Previous testing for Hepatitis A and B

The number of female sex partners  
The number of male sex partners

*Risk Factors for Transmission*

Donate blood  
    Date of last donation  
    Date of last donation screened negative for hepatitis C

## **VII. Case Definition for Case Classification**

### **A. Narrative: Description of criteria to determine how a case should be classified.**

*Clinical presentation*

An acute illness with a discrete onset of any sign or symptom\* consistent with acute viral hepatitis (e.g., fever, headache, malaise, anorexia, nausea, vomiting, diarrhea, and abdominal pain), and either a) jaundice, or b) elevated serum alanine aminotransferase (ALT) levels >400 IU/L.

\*A documented negative HCV antibody laboratory test result followed within 6 months by a positive test (as described in the laboratory criteria for diagnosis) result does not require an acute clinical presentation to meet the surveillance case definition.

*Laboratory criteria for diagnosis*

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](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 (including qualitative, quantitative or genotype testing)

AND, if done meets the following two criteria:

1. Absence of IgM antibody to hepatitis A virus (if done) (IgM anti-HAV), **AND**
2. Absence of IgM antibody to hepatitis B core antigen (if done) (IgM anti-HBc)

*Case classification:*

*Confirmed:* a case that meets the clinical case definition, is laboratory confirmed, and is not known to have chronic hepatitis C.

**B. Classification Tables:**

**Table VII-B.** Criteria for defining a case of acute hepatitis C.

Criterion	Case Definition		
	Confirmed		
<i>Clinical evidence</i>			
Acute Onset	N	N	
Jaundice	N		
Fever	O	O	
Headache	O	O	
Malaise	O	O	
Anorexia	O	O	
Nausea	O	O	
Vomiting	O	O	
Diarrhea	O	O	
Abdominal Pain	O	O	
<i>Laboratory evidence</i>			
Elevated serum aminotransferase (ALT) levels >400 IU/L		N	O
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 and posted by CDC	O	O	O
Hepatitis C Virus Recombinant Immunoblot Assay (HCV RIBA) positive	O	O	O
Nucleic Acid Test (NAT) for HCV RNA (including qualitative, quantitative or genotype testing) positive	O	O	O
IgM antibody to hepatitis A virus†(IgM anti-HAV)	A	A	A
IgM antibody to hepatitis B core antigen† (IgM anti-HBc)	A	A	A

Negative test within 6 months of a positive test			N
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Notes:

† = Test is not required but if done must be reported

A = This criterion is required to be absent.

N = This criterion in conjunction with all other “N” and any “O” criteria in the same column is required to classify a case.

O = At least one of these “O” criteria in each category in the same column (e.g., clinical evidence and laboratory evidence)—in conjunction with all other “N” criteria in the same column—is required to classify a case.

## VIII. Period of Surveillance

Surveillance should be on-going.

## IX. Data sharing/release and Print criteria

- Notification to CDC of confirmed cases is recommended for cases of acute hepatitis C.
- Case reports of acute hepatitis C are analyzed weekly internally, and clusters are confirmed with state health departments. Reports of hepatitis C are summarized annually in the *MMWR* summary of notifiable diseases.. Also, an extensive analysis of data is conducted for publication annually as a *Surveillance Summary*, along with case reports of acute hepatitis A and B.
- All states will receive a biannual report of cases for quality control and reconciliation. There is no current plan to re-release case data. Aggregate reports are publicly available, and states maintain confidential surveillance databases.

## X. References

1. Centers for Disease Control and Prevention (CDC). Case definitions for infectious conditions under public health surveillance. *MMWR* 1997; 46(No. RR-10):1–57. Available from: <http://www.cdc.gov/mmwr/>
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7. Council of State and Territorial Epidemiologists, Centers for Disease Control and Prevention. CDC-CSTE Intergovernmental Data Release Guidelines Working Group (DRGWG) Report: CDC-ATSDR Data Release Guidelines and Procedures for Re-release of State-Provided Data. Atlanta: CSTE; 2005. Available from: <http://www.cste.org/pdffiles/2005/drgwgreport.pdf> or <http://www.cdc.gov/od/foia/policies/drgwg.pdf>.
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9. Thomas DL, Ray SC, Lemon SM. Hepatitis C. In: Mandell GL, Bennett JE, Dolin R, editors. Principles and Practice of Infectious Diseases, 6th edition. Philadelphia: Churchill Livingstone; 2005.

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