10-ID-11

Committee: Infectious Disease

Title: Public Health Reporting and National Notification for Acute Hepatitis B Infections

I. Statement of the Problem:

CSTE position statement 07-EC-02 recognized the need to develop an official list of nationally notifiable conditions and a standardized reporting definition for each condition on the official list. The position statement also specified that each definition had to comply with American Health Information Community recommended standards to support "automated case reporting from electronic health records or other clinical care information systems." In July 2008, CSTE identified sixty-eight conditions warranting inclusion on the official list, each of which now requires a standardized reporting definition.

II. Statement of the desired action(s) to be taken:

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

III. Public Health Impact:

Background

In 2006, 4,713 cases of acute hepatitis B (HBV) in the United States were reported to CDC; the overall incidence of reported acute hepatitis B was 1.6 per 100,000 population, the lowest ever recorded. However, because many HBV infections are either asymptomatic or never reported, the actual number of new infections is estimated to be approximately tenfold higher. In 2006, an estimated 46,000 persons in the United States were newly infected with HBV. Rates are highest among adults; particularly males aged 25–44 years. The rate of new HBV infections has declined by 81% since 1990, when a national strategy to eliminate HBV infection was implemented in the United States. The decline has been greatest among children born since 1991, when routine vaccination of children was first recommended. Ongoing surveillance for acute HBV is needed to monitor and evaluate the effectiveness of current strategies for the control of disease and to identify exposed persons who will benefit from post-exposure prophylaxis.

Justification

Acute hepatitis B 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 B to public health authorities.

- CDC requests **standard** notification of acute hepatitis B to federal authorities.
- CDC has condition-specific policies and practices concerning the agency's response to, and use of, notifications.

IV. Goals of Surveillance

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

V. Methods for Surveillance:

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

Table V. Recommended sources of data and extent of coverage for ascertaining cases of acute hepatitis B.

	Coverage	
Source of data for case ascertainment	Population-wide	Sentinel sites
Clinician reporting	X	
laboratory reporting	X	
reporting by other entities (e.g., hospitals, veterinarians, pharmacies)	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 description of criteria for case ascertainment of a specific condition.

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.

Laboratory evidence: A person who has tested positive for IgM antibody to hepatitis B core antigen (IgM anti-HBc positive) or a person who has tested

positive for hepatitis B surface antigen (HBsAg positive) and has a negative test for IgM antibody to hepatitis A (IgM anti-HAV negative) (if done).
Clinical data: A person whose healthcare record contains a diagnosis of acute hepatitis B.

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

Other recommended reporting procedures

- All cases of acute Hepatitis B should be reported.
- Reporting should be ongoing 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.

Criterion	Reporting				
Clinical Evidence					
Jaundice or dark urine or light colored stool		N		N	
Discrete onset of symptoms:					
Fever		O	O	O	O
Headache		O	O	O	O
Malaise		O	O	O	O
Anorexia		O	O	O	O
Nausea		O	O	O	O
Vomiting		O	O	O	O
Abdominal Pain		O	O	O	O
healthcare record contains a diagnosis of acute hepatitis B	S				
death certificate lists acute hepatitis B as a cause of	S				

death or a significant condition contributing to death					
Laboratory Evidence					
Elevated serum aminotransferase (ALT) levels >200 IU/L			N		N
IgM antibody to hepatitis B core antigen (IgM anti-HBc) positive	S	N	N		
Hepatitis B surface antigen (HBsAg) positive	S			N	N
IgM anti-HAV positive (if done)		A	A	A	A

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.
A = This criterion must be absent (i.e., NOT present) for the case to meet the reporting criteria.

C. Disease Specific Data Elements:

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

Symptoms of viral hepatitis
Serum aminotransferases
Immunization history
- Doses of Hepatitis B-containing vaccine received
- Date of last dose

Epidemiological Risk Factors
During the 6 weeks to 6 months prior to the onset of symptoms:
Contact with a person diagnosed with hepatitis B
Inject or use any non-prescription drugs
Receipt of blood or blood products
History of surgery, dialysis, or other medical procedures or injections
Tattoo or body piercing
Jail or prison stay
History of accidental stick or puncture with a sharps contaminated with blood or body fluids
Diabetic who lives in congregate living situation (school, assisted living facility, skilled nursing home, group home)
Sexual partners
- Number of male sexual partners
- Number of female sexual partners

VII. Case Definition for Case Classification

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

Clinical case definition

An acute illness with a) discrete onset of symptoms and b) jaundice or serum aminotransferase levels (ALT) > 200 IU/L

Laboratory criteria for diagnosis:

IgM antibody to hepatitis B core antigen (IgM anti-HBc) positive
or hepatitis B surface antigen (HBsAg) positive
and IgM anti-HAV negative (if done)

Case classification

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

B. Classification Tables:

Table VII-B. Criteria for case classification for a case of acute hepatitis B.

	Case Definition			
Criterion	Confirmed			
Clinical Presentation				
Jaundice	N		N	
Discrete onset of symptoms:				
Fever	O	O	O	O
Headache	O	O	O	O
Malaise	O	O	O	O
Anorexia	O	O	O	O
Nausea	O	O	O	O
Vomiting	O	O	O	O
Abdominal Pain	O	O	O	O
Laboratory findings				
Elevated serum aminotransferase (ALT) levels > 200 IU/L		N		N
IgM antibody to hepatitis B core antigen (anti-HBc) positive	N	N		

Hepatitis B surface antigen (HBsAg) positive			N	N
IgM anti-HAV positive (if done)	A	A	A	A

Notes:
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 presentation and laboratory findings)—in conjunction with all other "N" criteria in the same column—is required to classify a case. A number following an "O" indicates that this criterion is only required for a specific clinical presentation.
A = This criterion must be absent (i.e., NOT present) for the case to meet the case definition.

VIII. Period of Surveillance

Surveillance should be on-going.

IX. Data sharing/release and print criteria

Notification to CDC of confirmed cases of acute hepatitis B is recommended.

- All states receive a quarterly report of cases submitted for the year to date. In addition, reports of acute hepatitis B are summarized in the weekly *MMWR* and annually in the *MMWR Summary of Notifiable Diseases*. Also once a year, an extensive analysis of data is conducted for publication in an *MMWR Surveillance Summary* along with case reports of acute hepatitis A and C.

- At a minimum, all states receive a quarterly report of cases, as well as the annual *MMWR* Summary of Notifiable Disease and the *MMWR* S*urveillance Summary* for acute viral hepatitis.

- Publication of data will follow this schedule (at a minimum):
    - Weekly in the tables of notifiable diseases in the MMWR
    - Quarterly feedback to state health departments
    - Annually in the *MMWR* annual *Summary of Notifiable Diseases*
    - Annually in the *MMWR* S*urveillance Summary* of acute viral hepatitis

- There is no current plan to re-release case data. Aggregate reports are publicly available, and states maintain confidential surveillance databases.

X. References

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XI. Coordination:

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