

Appendix B: Provincial Case Definitions for Diseases of Public Health Significance

Disease: Hepatitis B

Effective: February 2019

Hepatitis B

1.0 Provincial Reporting

Confirmed, chronic and probable cases of disease

2.0 Type of Surveillance

Case-by-case

3.0 Case Classification

3.1 Confirmed Case (Acute Case)

Laboratory confirmation of infection:

- Detection of Hepatitis B surface antigen (HBsAg) and Immunoglobulin M (IgM) antibody to Hepatitis B core antigen (anti-HBc) in the context of a compatible clinical history or probable exposure
OR
- Loss of HBsAg over 6 months in the context of a compatible clinical history or probable exposure

3.2 Chronic Case (Carrier)

Laboratory confirmation of infection:

- Persistence of detectable HBsAg for more than 6 months
OR
- Persistence of detectable Hepatitis B virus (HBV) deoxyribonucleic acid (DNA) for more than 6 months
OR
- Detection of HBsAg with a negative IgM anti-HBc in the context of a compatible clinical history (consider section 4.3: Indications and Limitations)

3.3 Probable Case (Acute Case)

- Acute clinically compatible signs and symptoms in a person with an epidemiologic link to a laboratory-confirmed case
OR
- Acute clinically compatible signs and symptoms and detection of HBsAg (and anti-Hepatitis A virus [HAV] and Hepatitis C virus [HCV] negative) when the test for IgM antibody to anti-HBc is not available

4.0 Laboratory Evidence

4.1 Laboratory Confirmation

Any of the following will constitute a confirmed case of hepatitis B in the laboratory:

Positive for HBsAg confirmed by one or more of the following:

- Positive anti-HBc Immunoglobulin G (IgG)/IgM
- Neutralization of HBsAg using neutralization assay
- Positive for HBV DNA

4.2 Approved/Validated Tests

- HBV test for HBsAg
- HBV test for anti-HBc total Antibody (IgG/IgM)
- HBV test for anti-HBc IgM
- Nucleic acid amplification test (NAAT) or hybridization tests for HBV DNA

4.3 Indications and Limitations

Some chronic cases of hepatitis B may develop acute exacerbations and may develop detectable anti-HBc IgM antibodies during these episodes. This does not indicate a new/recent infection.

5.0 Clinical Evidence

Acute HBV infection is often not clinically apparent, with 50-70% of adult cases being asymptomatic. Acute illness, if symptomatic, typically includes anorexia, vague abdominal discomfort, nausea, and vomiting, sometimes arthralgias and rash, often progressing to jaundice. Fever may be absent or mild. After acute HBV infection, the risk of developing chronic infection varies inversely with age. Chronic HBV carriers may not display symptoms or experience symptoms associated with cirrhosis and other complications of chronic HBV infection.

A clinical consultation is necessary for diagnosis.

6.0 ICD 10 Code(s)

B16 Acute hepatitis B

7.0 Sources

Centers for Disease Control and Prevention. National Notifiable Disease Surveillance System: Hepatitis B, acute - 2012 Case Definition [Internet]. Atlanta, GA: U.S. Department of Health & Human Services; 2012 [cited May 1, 2018]. Available from: <https://wwwn.cdc.gov/nndss/conditions/hepatitis-b-acute/case-definition/2012/>

Heymann DL, editor. Control of Communicable Diseases Manual. 20 ed. Washington, D.C: American Public Health Association; 2015.

Public Health Agency of Canada. Hepatitis B. In: Case Definitions for Communicable Diseases under National Surveillance. Canada Communicable Disease Report. 2009;35S2.

8.0 Document History

Table 1: History of Revisions

Revision Date	Document Section	Description of Revisions
December 2014	General	New template. Title of Section 8.0 changed from “References” to “Sources”. Section 9.0 Document History added.
December 2014	1.0 Provincial Reporting	“Confirmed cases of disease” changed to Confirmed, chronic and probable cases of disease”.
December 2014	3.2 Chronic Case (Carrier)	Entire section revised.
December 2014	4.1 Laboratory Confirmation	Addition of “in the laboratory”. “with anti-HBs” changed to “using neutralization assay”. “Positive for Hepatitis B virus (HBV) deoxyribonucleic acid (DNA)” changed to “Positive for HBV DNA”.
December 2014	4.2 Approved/Validated Tests	“IgG/IgM” changed to “total Antibody (IgG/IgM)”. “NAT” changed to “NAAT”.
December 2014	4.3 Indications and Limitations	“can have an” changed to “may develop”. Addition of “during these episodes. This does not indicate a new/recent infection.”
December 2014	5.0 Clinical Evidence	Entire section revised.
December 2014	8.0 Sources	Updated.
February 2019	General	Minor updates were made to support the regulation change to Diseases of Public Health Significance. Section 7.0 was deleted.

