BC Centre for Disease Control
AN AGENCY OF THE PROVINCIAL HEALTH SERVICES AUTHORITY

Date **September 22, 2009**

ATTN: Medical Health Officers and Branch Offices
Public Health Nursing Administrators and Assistant Administrators
Holders of Communicable Disease Control Manuals

Re: **Revisions to Communicable Disease Control Manual:**
Chapter I: Hepatitis B Guidelines

Page 1, 1.0 Goal:
- "Follow-up of infants born to mothers who are hepatitis B chronic carriers, to ensure immunized infants are protected, and to identify infants that are infected with HBV" has been added to the list of strategies to reduce the annual incidence of hepatitis B virus infection reported in British Columbia.

Page 1, 2.0 Clinical Description:
- New section, with a broader description of hepatitis B clinical illness.

Page 2, 3.0 Epidemiology:
- New section.

Page 2, 4.0 Laboratory Information:
- New section.
- HBV testing is now done at private and hospital laboratories. Positive results are to come to the BCCDC Public Health Microbiology & Reference Laboratory for confirmatory testing.
- Prenatal screening is being done by private laboratories as well. Positive tests should come to the BCCDC Public Health Microbiology & Reference Laboratory for confirmatory testing and HBeAg testing of positive results.
- Information provided regarding out-of-province testing for insurance purposes.

Page 2, 5.0 Definitions:
- Definitions have been updated for consistency with Public Health Agency of Canada (PHAC) case definitions. A compatible clinical history or probable exposure is needed to meet case definitions for acute and probable cases, since anti-HBc IgM positive results may be reflecting a reactivation of chronic infection.

A research and teaching centre affiliated with UBC

Epidemiology Services
655 West 12th Avenue
Vancouver, British Columbia
Canada V5Z 4R4

Tel 604.707.2517
Fax 604.707.2516
www.bccdc.ca

Page 3, Note:
- Immigrants from HBV endemic countries who have positive HBsAg results and no recent history of acute infection may be considered chronic carriers. Country of origin and date of immigration information should be included with data entry.

Page 4, 5.4 Contact:
- Information now includes incubation period.

Page 5, 6.0 Case Management:
- Links added to access the Hepatitis B Enhanced Surveillance Report and the Transfusion Transmissible Infections guidelines.

Page 5, 7.0 Contact Management:
- New section. This information was previously included under case management.

Page 6, 8.0 Hepatitis B Post-Exposure Management:
- HBIg is available through hospital Blood Banks. Previously, this supply came directly from Canadian Blood Services.
- Updated information about the time period for administration of HBIg. Give HBIg up to 7 days following percutaneous exposure, and up to 14 days for permucosal and sexual exposures.

Page 7, Table 1, Hepatitis B Post-Exposure Prophylaxis:
- This table is consistent with the tables in the Immunization Program manual and the Blood and Body Fluid Exposure Management guidelines. Post-exposure retesting is indicated at 6 and 9 months, rather than 6 and 12 months.

Page 8, Table 2, Hepatitis B Immune Globulin:
- This table is consistent with the table in the Immunization Program manual guidelines.

Page 9, 10.0 Vaccine Indications:
- New section. Information added regarding the use of INFANRIX hexa™ at 2, 4 and 6 months of age for infants who receive HBIg and hepatitis B vaccine at birth, or hepatitis B vaccine only at birth.

Page 10, 11.0 Serologic Testing for Hepatitis B in Specific Groups:
- **11.1 Pregnancy:** new link to Communicable Disease Control Manual, Chapter II, Section III, Immunization of Special Populations.
- **11.2 Internationally Adopted Children:** Offer hepatitis B vaccine to family members prior to the arrival of the adopted child from a hepatitis B endemic country.

Page 11, 11.3 Pre-vaccination testing:

- Individuals with chronic HCV or other chronic liver diseases have been added to this list. This is consistent with Immunization Program manual guidelines.

Pages 11 and 12 Post –vaccination Testing:

- Footnote ❶: Testing is indicated for infants who receive HBIg and hepatitis B vaccine at birth, and for infants who receive hepatitis B vaccine only at birth. Test HBsAg and anti-HBs only. Anti-HBc testing was previously performed to determine infants who had been infected and had cleared the virus. As anti-HBc may be due to maternal antibody, further serology was necessary at 12 months. Data collected for the BC high risk infant study found >60% anti-HBc in infants 1-6 months post immunization were false-positives, and the true-positive rate is close to zero.
- Footnote ❷: The Hepatitis B Guidelines for Patients with Chronic Kidney disease are found in this document, as well as in the Immunization Program, Section III, Immunization of Special Populations.
- Footnote ❸: Information regarding hepatitis B vaccine response in chronic HCV populations.

Page 12, Booster Doses and Re-Immunization:

- Additional information regarding management of individuals who received hepatitis B vaccine without post-vaccination testing, and are now entering a health care profession as a student or an employee.

Page 13, 13.0 Recording:

- This new section provides direction for entering acute and chronic hepatitis B cases, and the appropriate recoding when cases are initially entered as “undetermined” in iPHIS.
- Direction also provided for entering as chronic those clients who test positive for hepatitis B, are asymptomatic, and come from a country where Hepatitis B is endemic. Provide additional data regarding birth country and emigration.

Page 14, 14.0 Interpretation of Testing Results:

- This is not a new table; however some explanation of test results is needed. The table defines an anti-HBs response of ≥ 10 IU/L as indicative of immunity. Some test results from the BCCDC Public Health Microbiology & Reference Laboratory will describe a test result of 10-13 IU/L as “Suggestive but not definitive for immunity to HBV through vaccinations.” The test reagent manufacturer has become more cautious in reporting “protection.” Also, repeated test results on a single specimen may indicate variability in results.

  For the purpose of determining immunity from natural infection or vaccine, continue to consider an anti-Hbs test result of ≥ 10 IU/L as protective.

Page 15, 15.0 Hepatitis B Guidelines for Patients with Chronic Kidney Disease:

- This is a revision to the table developed in January 2009 and found in the Immunization Program, Section III, Immunization of Special Populations. Further review with CKD clinic practitioners led to the following changes to the January table:
    - No more than two complete vaccine series will be provided to these clients; an individual who fails to respond to a second vaccine series will be considered a non-responder;
    - Give an annual booster dose of hepatitis B vaccine to clients who continue to show an anti-HBs response of 1 - < 10 IU/L;
    - Post- booster testing is not indicated until the following year; and
    - When annual testing reveals a response of < 1, document as a non-responder and manage accordingly.

Pages 16, 17 & 18, 16.0 Isolated Hepatitis B Core Antibody Positive Test Results:

- Two algorithms have been developed for follow-up of cases with an isolated core antibody positive result, and core antibody with indeterminate results.

Page 19, 17.0 Authority:

- Updated from the Health Act 1983 to the BC Public Health Act 2008

Re: Revisions to Communicable Disease Control Manual, Chapter 2, Immunization Program

Section III, Immunization of Special Populations:

Page 26, Table 7, Hepatitis B Vaccination Guidelines for Patients with Chronic Kidney Disease:

- Table has been revised for consistency with Hepatitis B guidelines

Section VII, Biological Products:

Page 15, Hepatitis B Vaccine for Students of Health Care Professions:

- The link in the note at the bottom of the page has been updated to reflect the correct section of the Hepatitis B guidelines.

Please remove and destroy the following pages from the Communicable Disease Control Manual, Chapter 1: Hepatitis B:

ToC and Pages 1 - 12 Dated June 2004

Please remove and destroy the following pages from the Communicable Disease Control Manual, Chapter 2:

Section III, Immunization of Special Populations:

Page 26 Dated January 2009

Section VII, Biological Products:

Page 15 Dated July 2009

Please insert the following pages in the Communicable Disease Control Manual, Chapter 1: Hepatitis B:

ToC and Pages 1 – 20 Dated September 2009

Please insert the following pages in the Communicable Disease Control Manual, Chapter 2:

Section III, Immunization of Special Populations:

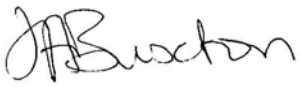
Page 26 Dated September 2009

Section VII, Biological Products:

Page 15 Dated September 2009

If you have any questions or concerns, please contact Dr. Jane Buxton, Physician Epidemiologist or Cheryl McIntyre, Associate Nurse Epidemiologist, at telephone (604) 707-2517, fax (604) 707-2516 or by email at jane.buxton@bccdc.ca or cheryl.mcintyre@bccdc.ca

Sincerely,



Dr. Jane Buxton
Physician Epidemiologist
Epidemiology Services and Hepatitis Services
BC Centre for Disease Control

pc: Dr Perry Kendall
Provincial Health Officer
Ministry of Health Services

Dr. Eric Young
Deputy Provincial Health Officer
Ministry of Health Services

Dr. Bob Fisk
Medical Consultant
Non-Communicable Disease
Ministry of Healthy Living and Sport

Craig Thompson
Director, Communicable Diseases--Immunization
Ministry of Healthy Living and Sport

Warren O'Briain
Executive Director
Communicable Disease and Addiction Prevention
Ministry of Healthy Living and Sport