

Appendix A: Disease-Specific Chapters

Chapter: Hepatitis C

Hepatitis C

- Communicable
 Virulent

**Health Protection and Promotion Act:
Ontario Regulation 558/91 – Specification of Communicable Diseases**

**Health Protection and Promotion Act:
Ontario Regulation 559/91 – Specification of Reportable Diseases**

1) Aetiologic Agent:	The hepatitis C virus is a small, single-stranded RNA virus and is a member of the Flaviviridae family (2). At least 6 major genotypes and approximately 100 subtypes exist. There is limited evidence about any differences in clinical outcome between the various types; however, differences do exist in responses to antiviral therapy according to HCV genotypes (1).
2) Case Definition:	
Surveillance Case Definition	See Appendix B
Outbreak Case Definition	<p>The outbreak case definition varies with the outbreak under investigation. Consideration should be given to the following in establishing an outbreak case definition:</p> <ol style="list-style-type: none">1. Clinical, laboratory and/or epidemiological criteria2. A time frame for occurrence3. A geographic location(s) or place(s) where cases live or became ill/exposed4. Special attributes of cases (e.g. age, underlying conditions) <p>Cases should also be classified by levels of probability (i.e. confirmed, probable or suspect).</p>
3) Identification:	
Clinical Presentation	<p>Most cases are usually asymptomatic or have mild illness; presentation is similar to other hepatitis diseases and when symptoms are present, the onset is slow and insidious with anorexia, vague abdominal discomfort, nausea and vomiting and fatigue (1, 2).</p> <p>A high percentage (50-80%) of infected persons develop chronic infection (1).</p>
Diagnosis	See Appendix B

4) Epidemiology:	
Occurrence	Worldwide (1). In Ontario Hepatitis C is reported more for prevalence than incidence. Most cases are reported some months/years following infection so higher or lower rates can be misleading. Cases of Hepatitis C are seen more often among men compared to women.
Reservoir	Humans (1)
Modes of Transmission	HCV is primarily transmitted by blood-to-blood contact (parenterally). Sexual and mother-to-child have been documented but appears far less efficient or frequent than the parenteral route (1).
Incubation Period	Ranges from 2 weeks to 6 months, most commonly 6-9 weeks (1).
Period of Communicability	From one or more weeks before the onset of symptoms; most persons are probably infectious indefinitely (1).
Susceptibility and Resistance	Susceptibility is general; the degree of immunity is unknown (1).
5) Reporting Requirements:	
To local Board of Health	Laboratory confirmed cases shall be reported to the medical officer of health by persons required to do so under the <i>Health Protection and Promotion Act</i> , R.S.O. 1990.
To Public Health Division (PHD)	<p>Report only case classifications specified in the case definition to PHD.</p> <p>Cases shall be reported using the integrated Public Health Information System (iPHIS), or any other method specified by the Ministry within five (5) business days of receipt of initial notification as per iPHIS Bulletin Number 17: Timely Entry of Cases (3).</p> <p>The minimum data elements to be reported for each case is specified in the following:</p> <ul style="list-style-type: none"> • <i>Ontario Regulation 569 (Reports)</i> under the Health Protection and Promotion Act (HPPA) • The disease-specific User Guides published by the Ministry, and • Bulletins and directives issued by the Ministry.
6) Prevention and Control Measures:	
Personal Prevention Measures	<p>Measures include: (2)</p> <ul style="list-style-type: none"> • No sharing of personal items and toilet articles such as tooth brushes and razors

	<ul style="list-style-type: none"> • Safe sex practices, using condoms should be encouraged at all times especially with sex partners of HCV-positive persons • Harm reduction strategies such as needle exchange programs
Infection Prevention and Control Strategies	<p>Strategies include:</p> <ul style="list-style-type: none"> • Use of routine practices to minimize the risk of exposure in health care settings
Management of Cases	<p>Confirm diagnosis by reviewing and interpreting the laboratory result in collaboration with the attending physician.</p> <p>Investigate the case to determine risk factors and possible source of infection.</p> <p>Provide education and counselling as above to the client including information about community support agencies and a reminder not to donate blood or blood products (2). Report past blood donations / transfusions of persons found to be HCV positive to Canadian Blood Services.</p> <p>Advise physicians about the availability of Hepatitis A and B vaccine at no cost for persons with chronic liver disease including carriers of Hep C.</p>
Management of Contacts	Not applicable
Management of Outbreaks	<p>An outbreak is defined as the occurrence of two or more cases of Hep C linked by time or a common exposure source or setting.</p> <p>Provide public health management of outbreaks or clusters in order to identify the source of illness and stop the outbreak. As per this Protocol, outbreak management shall comprise of but not be limited to the following general steps:</p> <ul style="list-style-type: none"> • Confirm diagnosis and verify the outbreak • Establish an outbreak team • Develop an outbreak case definition • Implement prevention and control measures • Implement and tailor communication and notification plans depending on the scope of the outbreak • Conduct epidemiological analysis on data collected • Conduct environmental inspections of implicated premise where applicable • Coordinate and collect appropriate clinical specimens where applicable • Prepare a written report • Declare the outbreak over in collaboration with the outbreak team currently reviewing them
7) References	<p>(1) Heymann D, editor. Control of communicable diseases manual. 18th ed. Washington: American Public Health Association; 2004.</p> <p>(2) Pickering LK, Baker CJ, Long SS, McMillan JA, editors. Red</p>

	<p>book: 2006 report of the Committee on Infectious Diseases. 27th ed. Elk Grove Village, IL: American Academy of Pediatrics; 2006. Section 3, Summaries of infectious diseases; p. 355 – 359</p> <p>(3) Ministry of Health and Long-Term Care. Timely entry of cases. iPHIS Bulletin. 2007 May 11;17.</p>
<p>8) Additional Resources</p>	<p>Canadian Liver Foundation [Internet]. Ottawa: Canadian Liver Foundation; 2009 [cited 2009 Feb 1]. Available from http://www.who.int/csr/disease/hepatitis/HepatitisB_whocdscsrlyo2002_2.pdf.</p> <p>Canadian Blood Services [Internet]. Ottawa: Canadian Blood Services; 1998-2008 [cited 2009 Feb 10]. Available from http://www.bloodservices.ca/.</p> <p>Frankish J, Moulton G, Kwan B, Doyle Waters M, Milligan D, Buller-Taylor T. Hepatitis C prevention: an examination of current international evidence. Ottawa: Health Canada; 2002. Available from http://www.phac-aspc.gc.ca/hepc/pubs/hepcprev-prevhepc/pdf/hepcPrevention.pdf.</p> <p>Canadian Nurses Association. Hepatitis C: a nursing guide. Ottawa: Canadian Nurses Association; 2002. Available from http://www.phac-aspc.gc.ca/hepc/pubs/nursing-infirmiers/pdf/nursingGuide.pdf.</p> <p><i>Health Protection and Promotion Act</i>, R.S.O. 1990, c. H.7. Available from http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_90h07_e.htm.</p>

