

#### Protecting Health Care Workers from Infectious Diseases - A Self Assessment Tool

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Product Code: IIFTLAEN0912

#### Public Services Health and Safety Association (PSHSA)

4950 Yonge Street, Suite 1800 Toronto, Ontario M2N 6K1 Canada

Telephone: 416-250-2131 Fax: 416-250-7484

Toll Free: 1-877-250-7444 Web site: www.pshsa.ca

Connect with us:

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#### **Preface**

Public Services Health and Safety Association (PSHSA) is a not-for-profit organization, designated as a Safe Workplace Association under the Workplace Safety and Insurance Act (S.O. 1997). Our vision is to inspire, guide and support our clients to achieve the healthiest and safest workplaces. PSHSA recognizes that health care organizations face increased challenges post-SARS to ensure they have adequate programs in place to protect the health and safety of their staff. As a result, this self-assessment tool was developed to assist employers, workers, health care professionals, and members of the joint health and safety and infection control committees identify strengths and opportunities for enhancing their Occupational Health Infection Control Program.

This self-assessment tool should assist health care organizations address the legislated requirements under the Ontario Occupational Health and Safety Act and establish best practices in occupational health and safety as recommended in the Ministry of Health and Long Term Care's April 2004 report on SARS and infectious disease control, For the Public's Health: A Plan of Action.

With the onset of SARS in 2003, many health care employees and their families endured a tremendous burden from an infectious disease. This document is dedicated to them, and to everyone who remains committed to the prevention and control of illnesses arising from infectious diseases in the workplace. *Public Services Health and Safety Association* 

#### Introduction

Protecting Health Care workers from Infectious Diseases: A Self-Assessment Tool was first published in 2004. Since then many new infection prevention and control resources have been published. PSHSA has revised and updated the tool to provide a resource that will assist employers, workers, health care professionals, members of the joint health and safety and infection control committees to identify strengths and opportunities for enhancing their Occupational Health Infection Control Program.

This resource can assist health care organizations to address the legislated requirements under the Ontario Occupational Health and Safety Act and implement best practices as recommended by Public Health Ontario, the Public Health Agency of Canada, Canadian Standards Association, Ontario Medical Association and Ontario Hospital Association. Legislation cited in this document is based on Ontario statutes, regulations and best practices current at the time of release. In addition to Canadian standards and rationale, internationally recognized standards are referenced where they offer the most current information. While an attempt was made to identify relevant standards, others may be available that have not been referenced.

Our goal is to provide you with a comprehensive and easy-to-use resource that will promote the protection of health care workers from the transmission of infectious diseases in the workplace. While much of the information contained in this document will also protect patients and the public, this tool does not specifically address infection control issues related to patient safety.

With the aid of the self assessment tool, an action plan and implementation strategy can be put in place. The following steps are recommended:

- assess all infection control risks to staff
- review and revise existing occupational health related infection control policies and procedures to control identified risks
- develop an action plan to implement new policies, procedures and programs.
- identify training requirements for staff.
- evaluate the program at least annually, more frequently as required and as new resources become available

A multidisciplinary approach is recommended for completing this assessment tool. Appropriate departments, managers, staff, the joint health and safety committee and infection control committee should be involved in the process.

As outlined in the table of contents, this assessment tool is divided into major sections and sub-sections. Each organization should determine the sections appropriate for its needs, as not all sections may apply.

Appendix A contains the complete title of abbreviations and acronyms used in this document.

Please note: under the "rationale" headings, best practices, standards and legislation are listed. Elements where regulatory requirements apply are identified by an asterisk (\*). Abbreviations are used in these sections of the document however the full name will be used the first time the reference appears.

While this assessment tool is not intended to be a compliance audit tool, many of the requirements for an occupational infection control program are legislated under the Occupational Health and Safety Act and the Regulations for Health Care and Residential Facilities. In accordance with sections of the Act and the regulations, policies and procedures related to occupational infection control should be developed in consultation with the joint health and safety committee.

Key points to include in policies and procedures are included for most elements under the heading "Suggestions for Development, Implementation and Evaluation". They include explanations or guiding comments to assist the users of this assessment tool.

# 1.0 Occupational Health Infection Control Program

This section describes the administration of the occupational health infection control program. A number of legislated requirements apply. An essential resource for this section is PIDAC "Best Practices for Infection Prevention and Control Programs in Ontario in all Health Care Settings".

Key Components of the program include:

- Pre-placement assessment of new workers.
- Immunization review and update.
- Staff influenza vaccination program.
- Tuberculosis status screening and surveillance, based on facility and activity risk assessment.
- Exposure prevention and management.
- Post-exposure prophylaxis.
- Health and safety education.

An organizations' occupational health program should be guided by an overall policy that includes the following items to protect workers from the transmission of infection:

- Management commitment to occupational infection control.
- Reference to the need to develop procedures to support the program based on risk assessment pursuant to the type of workplace.
- Identification of person or persons responsible for the program.
- A schedule of review and revision, which will be at least annually in accordance with the Regulations for Health Care and Residential Facilities and in consultation with the JHSC.
- Commitment to training and education of all levels of staff.

#### **Education material may be delivered through:**

- 1) Face-to-face learning.
- 2) Appropriate signage
- 3) Pamphlets, video, webinars, and other information resources.

| Section | Element   | Suggestions for Development, Implementation and Evaluation  | Status (Y/N<br>/Partial,<br>N/A) | Standard or Rationale  | Comments |
|---------|---|---|----------------------------------|--|----------|
| 1.1     | The organization has an occupational health and safety program in place for the control of infections among workers | Measures and procedures to support the overall program are required and must address, as a minimum, the following issues as identified in the Regulations for Health Care and Residential Facilities and Needle Safety Regulation:  Safe work practices. Safe working conditions. Proper hygiene practices and use of hygiene facilities. Control of infections. Immunization and inoculation against infectious diseases. Use of appropriate antiseptics, disinfectants and decontaminants. The hazards of biological agents. Use, wear and limitations of personal protective equipment. Handling, cleaning and disposal of soiled linen, sharp objects and waste. Use of safety engineered needles |                                  | <ul> <li>HCRF Reg., sec. 8 and 9         (Health Care &amp; Residential Facilities Regulation)</li> <li>NS Reg. (Needle Safety Regulation)</li> <li>Reg. 965 – (Hospital Management under Public Hospitals Act)</li> <li>*LTC Act, 2007, c. 8, sec. 86 (2) (3) (Long Term Care Act)</li> <li>*HPP Act (Health Promotion &amp; Protection Act)</li> <li>APIC - Occupational Health section (text, Association for Professionals in Infection Control &amp; Epidemiology)</li> <li>*TDG - (Transportation of Dangerous Goods Act)</li> </ul> |          |

|     |  | Further portions of this tool will provide additional detail regarding measures and procedures. Staff must be familiar with and have access to policies and procedures related to the prevention and control of infections among workers.  In accordance with the Regulations for Health Care and Residential Facilities, "measures and procedures" must be reviewed annually and more often if required in consultation with the JHSC. |   |  |
|-----|--|---|---|--|
| 1.2 | The organization has policies and procedures in place to protect workers from hazards that may affect their reproductive health, pregnancy or the health of a nursing child. | Procedures should address any identified risk to workers including but not limited to: rubella, parvovirus B19, toxoplasmosis and hazards such as chemicals that may affect their reproductive health, pregnancy or their nursing child.  | <ul> <li>HCRF Reg., sec. 9(1) 8</li> <li>APIC - Occupational         Health section</li> <li>PHAC-PCOI - (Health         Canada, Prevention &amp;         Control of Occupational         Infections in Health Care)</li> <li>OHA/OMA CDSP- (Ontario         Hospital Association and         Ontario Medical         Association         Communicable Disease         Surveillance Protocols)</li> </ul> |  |

| 1.3 | Infection control policies and procedures that relate to occupational health are reviewed annually and more frequently if required. | The organization reviews infection control policies and procedures that relate to occupational health at least annually and more frequently if required, for example, when new best practice documents are issued by Public Health Ontario, the Provincial Infectious Disease Advisory Committee (PIDAC) or the Public Health Agency of Canada (PHAC). | <ul> <li>HCRF Reg., sec 9 (2) and (3)</li> <li>BP-IPCP (Best Practices for Infection Prevention &amp; Control Programs in Ontario, PIDAC).</li> </ul>  |  |
|-----|---|--|--|--|
| 1.4 | Workers are trained in infection control policies and procedures to protect their health and safety.                                | Training of workers should take into account the tasks they perform and the risk of exposure to infectious disease inherent in their particular situation. Training must be documented.  Effective education programs  | <ul> <li>* OHSA, sec. 25, 26 and 27<br/>(Occupational Health &amp;<br/>Safety Act)</li> <li>* HCRF Reg., sec 9(4)</li> <li>* WHMIS Reg. (Workplace<br/>Hazardous Materials<br/>Information System<br/>Regulation)</li> </ul> |  |

#### emphasize:

- The risks associated with infectious diseases, including acute respiratory illness and gastroenteritis
- Hand hygiene, including the use of alcohol-based hand rubs and hand washing
- Principles and components of Routine Practices as well as additional transmissionbased precautions
- Assessment of the risk of infection transmission and the appropriate use of personal protective equipment (PPE), including safe application, removal and disposal

Individual staff responsibility for keeping clients/patients/residents, themselves and co-workers safe. Collaboration between professionals involved in infection prevention and control and occupational health and safety (OHS).

Also refer to section 5 – Occupational Exposure of Health Care workers to Communicable Diseases

Examples of training include:

- \* Regulations under the Nursing Homes Act, Homes for Aged and Rest Homes Act and Charitable Institutions Act require initial and ongoing training of workers
- BP-IPCP
- APIC -occupational health section

|     |  | <ul> <li>Prevention of disease transmission.</li> <li>Principles of routine practices and transmission based precautions</li> <li>Symptoms of communicable diseases to report.</li> <li>Health promotion to prevent illness.</li> <li>Use of personal protective equipment as appropriate.</li> </ul>  |  |  |
|-----|--|--|--|--|
| 1.5 | A quality assurance program is in place to ensure safe work practices.                           | <ul> <li>Quality assurance indicators may include items such as:</li> <li>Training Records.</li> <li>Adherence to policies and procedures.</li> <li>Occupational health infection surveillance data.</li> <li>Feedback and evaluation.</li> <li>Immunization rates for influenza.</li> <li>Program audits e.g. hand hygiene audits.</li> </ul> | <ul> <li>* OHSA sec. 25, 26 and 27</li> <li>BP-IPCP</li> <li>BP-HH (Best Practices for<br/>Hand Hygiene in All<br/>Health Care Settings,<br/>PIDAC)</li> </ul> |  |
| 1.6 | There is a process for communicating and sharing information between the persons responsible for | In addition to the OHSA, regulations under the Public Hospitals Act provide for the JHSC to request a member of a medical advisory committee to advise the   | <ul> <li>* OHSA, sec. 9(18)</li> <li>* HCRF Reg., sec. 8 and 9</li> <li>* Reg. 965 –Public<br/>Hospitals Act, sec. 7(6)<br/>Hospital Management</li> </ul>     |  |

|     | occupational health, the JHSC and the infection control committee.   | JHSC on matters related to infection control.  The SARS Commission led by the Honourable Mr. Justice Archie Campbell made key recommendations regarding the role of the joint health and safety committee. "In any future infectious disease outbreak, the emergency response ensures involvement of the joint health & safety committee in a manner consistent with their statutory role in keeping workplaces safe." | section  BP-IPCP  SC-CR - (SARS Commission, Spring of Fear, The Campbell Report) |  |
|-----|--|--|--|--|
| 1.7 | There is written communication and sharing of information between the infection control practitioner and the occupational health professional. | This communication should address health care worker exposure to communicable diseases, health care worker infections, outbreaks, development of infection control policies and procedures and education pertaining to occupational health.  In long-term care and community care the occupational health professional may be a person assigned responsibility for occupational or employee health.                    | <ul> <li>APIC -occupational health section</li> <li>BP-IPCP</li> </ul>           |  |

| 1.8 | There is an occupational health medical adviser or consultant with infection control experience to collaborate in the development of occupational health procedures and to act as a resource when needed. | The adviser/consultant could be "in house" or external.  Long-term care facilities should identify and have a process to consult occupational health resources as needed.   | <ul> <li>APIC - occupational health section</li> <li>PHAC-PCOI</li> <li>OHA/OMA-CDSP</li> </ul>  |  |
|-----|---|---|--|--|
| 1.9 | There are occupational health infection control policies for work restrictions.   | Policies and procedures should affirm that ill workers should not report to work. Work restrictions will be based on agent, mode of transmission, control measures, clinical status of illness, and degree and type of contact with patient/residents and staff.  Infection control, occupational health and public health professionals are consulted in the development of policies.  Work restrictions may be required for the following illnesses. For more information refer to the appropriate OHA/OMA protocol:  • herpes simplex • adenovirus | <ul> <li>OHA/OMA-CDSP</li> <li>*HPP Act (Health Promotion &amp; Protection Act)</li> <li>BP-IPCP</li> <li>APIC -occupational health section</li> </ul> |  |

|      |   | <ul> <li>antibiotic resistant organisms</li> <li>enteric disease</li> <li>Group A Steptococcal disease</li> <li>influenza</li> <li>measles</li> <li>Neisseria meningitidus (infection)</li> <li>mumps</li> <li>pertussis</li> <li>rubella</li> <li>scabies</li> <li>varicella/zoster</li> </ul>   |  |  |
|------|---|---|--|--|
| 1.10 | There is an occupational health policy and related procedures for screening health care workers for communicable diseases, for reporting illness (internal and external reports), and for detecting, preventing and controlling diseases. | Policies and procedures should address:  Screening procedures, e.g. pre-placement and post-exposure assessment and follow-up (in accordance with the OHA/OMA Communicable Disease Surveillance Protocols, if in a hospital)  External reporting to Public Health if a "reportable" disease is identified.  Reporting to Ministry of Labour in cases of occupationally acquired illness.  Reporting to Ministry of Labour in cases of critical injury or fatality. | <ul> <li>* HCRF Reg., sec. 5, 8 and 9</li> <li>* IER Reg., sec.5</li> <li>* OHSA sec. 52</li> <li>* Reg. 965 – Public Hospitals Act, sec. 4(1) (e) and 4(2)</li> <li>* HPP Act - Reportable Disease, Regulation (reporting requirement to Medical Officer of Health)</li> <li>APIC</li> <li>OHA/OMA-CDSP</li> <li>BP-IPCP</li> <li>*WSIA (Workplace Safety &amp; Insurance Act)</li> </ul> |  |

|      |   | <ul> <li>Reporting to WSIB where<br/>health care or lost time<br/>results as a consequence of<br/>illness acquired in the<br/>performance of work.</li> </ul>  |   |  |
|------|---|--|---|--|
| 1.11 | There are protocols for<br>the assessment and/or<br>treatment of<br>occupational injuries,<br>illnesses, critical<br>injuries and fatalities. | Protocols for the treatment of occupational injuries and illnesses such as needle sticks, exposure to communicable diseases and active infection should be based on currently accepted guidelines.   | <ul> <li>* OHSA, sec. 51 and 52</li> <li>* WSIA, Reg. 1101 (first aid)</li> <li>* Reg. 965 – Hospital Management, under Public Hospitals Act, sec. 4(1)</li> <li>APIC occupational health section</li> <li>OHA/OMA- CDSP</li> </ul> |  |
| 1.12 | There are protocols for preventing the transmission of non-occupationally acquired infections to other workers.                               | Protocols for the treatment of non-<br>occupational infections such as<br>communicable diseases, fever,<br>carrier and infection status should<br>be based on currently accepted<br>guidelines.  | <ul> <li>PHAC-PCOI</li> <li>OHA/OMA</li> <li>APIC - occupational health section</li> </ul>  |  |
| 1.13 | A written program is in place for environmental assessment of infectious hazards to workers.  | Examples include: the evaluation of needle stick data, evaluation of ventilation systems including negative pressure isolation rooms, presence of biological hazards, etc. The program should include assessment, control and evaluation of hazards. | <ul> <li>HC - PCOI</li> <li>* NS Reg.</li> <li>HRF Reg., sec. 19, 20</li> <li>VIRHC (Ventilation,<br/>Inspection Report for<br/>Health Care Facilities,<br/>Ontario Ministry of<br/>Labour)</li> </ul>                              |  |

| 1.14 | Occupational/Employee health records are maintained.   | Occupational health records maintained by an organization must be confidential and accessible only to designated staff responsible for occupational health. Personal records should be available to individual workers on request. Records should contain immune status, immunization record, records of exposure to communicable diseases and prophylaxis. Records can be used to track when TB skin tests are due and to check immune status, for example during a measles outbreak. A record should be kept of refusal of immunization. | <ul> <li>* OHSA, sec. 63(2)</li> <li>* HCRF Reg., sec. 9</li> <li>APIC- occupational health section</li> <li>OHA/OMA-CDSP - Immunization, influenza protocols</li> </ul> |  |
|------|--|--|--|--|
| 1.15 | Risk assessment activities are performed to identify potential occupational exposure situations or transmission of infectious diseases to or from the health care worker, from others or from the environment. | <ul> <li>Examples of risk assessment activities: workplace inspections, screening of staff, review of exposure records, review of infectious disease literature, internal and external communication, collaboration between infection control and occupational health staff, etc.</li> <li>Measures and procedures to control infectious diseases should be prepared where risk assessment indicates a need.</li> </ul>  | <ul> <li>* OHSA, sec. 25(2) (h)</li> <li>*HRF Reg., sec. 9</li> <li>BP-RPAP - (Best Practices, Routine Practices &amp; Additional Precautions, PIDAC)</li> </ul>         |  |

| 1.16 | In order to secure sufficient resources, a reporting process is in place to inform senior management about occupational health program objectives.                                       | <ul> <li>Periodic or routine reporting of activities may include:</li> <li>Statistics related to worker infections.</li> <li>Occupational health infection control activities (for example, training sessions, surveillance and audits).</li> <li>Resource requirements.</li> </ul>   | <ul><li>PHAC-PCOI</li><li>BP - IPCP</li></ul>   |  |
|------|--|---|---|--|
| 1.17 | Risk control measures using the occupational hygiene hierarchy are in place and are employed to prevent health care worker exposure to infection.  | <ol> <li>The occupational hygiene hierarchy         Of controls is:         <ol> <li>Controls at source (e.g.,                 engineering controls).</li> </ol> </li> <li>Controls along the path (e.g.,                 work practice controls and                 administrative controls).</li> <li>Controls at the worker (e.g.,                 personal protective                  equipment).</li> </ol> | <ul> <li>* OHSA, sec. 25(2) (h)</li> <li>* HCRF Reg, sec. 8 and 9</li> <li>* WHMIS Reg</li> <li>* CEBCA Reg (Control of Exposure to Biological or Chemical Agents Reg.)</li> <li>PHAC-PCOI</li> </ul> |  |
| 1.18 | An eyewash fountain is provided and maintained where a worker may be exposed to a potential hazard of injury to the eye, resulting from contact with a biological or chemical substance. | The eyewash performance criteria should include installation and maintenance in accordance with the American National Standards Institute (ANSI) standard.  | <ul> <li>* IER , sec. 124</li> <li>ANSI-Z358.1 - (American<br/>National Standards<br/>Institute)</li> </ul>   |  |

## 2.0 Routine Practices and Additional TransmissionBased Precautions

This section contains core elements that should be included in all occupational infection control programs. Routine practices should be used for all patients, residents and clients, regardless of diagnosis. This section also includes additional transmission-based precautions for infections spread by the following routes: airborne, droplet and contact. An essential resource for this section is "Best Practice Manual: Routine Practices and Additional Precautions in all Health Care Settings"

| ection Element   | Suggestions for Development, Implementation and Evaluation  | Status (Y/N<br>/Partial,<br>N/A) | Standard or Rationale   | Comments |
|--|---|----------------------------------|---|----------|
| There is a policy and procedures for hand hygiene that includes the use of alcohol based hand rubs and hand washing. | Procedures incorporate best practices for knowing why & when to perform hand hygiene, understanding factors that may influence hand hygiene, choosing appropriate products and applying the correct technique. The hand hygiene program should be multidisciplinary. Evaluation of the program should include ongoing auditing and observation of hand hygiene practices and provide feedback to staff. |                                  | <ul> <li>* OHSA sec 25, 27</li> <li>BP-HH (Best Practices for Hand Hygiene in All Health Care Settings, PIDAC)</li> <li>BP - RPAP (Best Practice Manual for Routine Practices &amp; Additional Precautions in All Health Care Settings, PIDAC)</li> <li>JCYH (Just Clean Your Hands Campaign, Ontario Ministry of Health &amp; Long Term Care)</li> </ul> |          |

| 2.2 | There are adequate hygiene facilities and supplies, including sinks, liquid soap dispensers and paper towels. Hand hygiene products are available at the point of care in disposable containers. | Ensure that hand hygiene containers for liquid soap alcohol hand rub and lotion are not "topped up".  | • | * HCRF Reg., sec. 9(1) (3)<br>(4) and 28<br>BP-HH<br>BP -ECPCI (Best Practices<br>for Environmental<br>Cleaning for the<br>Prevention & Control of<br>Infections) |  |
|-----|--|---|---|---|--|
| 2.3 | The policy and procedure related to cleaning equipment, furniture and environmental surfaces addresses worker health and safety.   | <ul> <li>The policy and procedures should address:</li> <li>Safe work practices.</li> <li>Appropriate use of cleaning agents.</li> <li>Personal protective equipment (PPE).</li> <li>Training requirements.</li> </ul> Also refer to Section 4 on Environmental Infection Control.            | • | * HCRF Reg., sec. 8, 9  * OHSA sec. 25 BP - RPAP BP -ECPCI  |  |
| 2.4 | There is a policy and procedure that directs staff in the safe handling of soiled patient/resident care equipment.   | <ul> <li>The policy and procedures should include:</li> <li>Safe work practices that prevent worker exposure of the skin and mucous membranes, and contamination of their clothing and the environment.</li> <li>Use of personal protective equipment.</li> <li>Routine practices.</li> </ul> | • | * HCRF Reg., sec. 8, 9(1)<br>and (2), 112 and 116<br>BP- RPAP   |  |

| 2.5 | There is a policy and procedure for the use, handling, reprocessing and disposal of sharps. | <ul> <li>The policy and procedures related to the handling and disposal of sharps should include:</li> <li>Use safety engineered needles for procedures requiring a hollow bore needle (for exceptions refer to the Needle Safety Regulation (NS Reg)</li> <li>Use puncture resistant sharps containers</li> <li>Discard sharps as close as possible to the point of use</li> <li>No recapping of sharps e.g. needles, scalpels</li> <li>Safe work practices</li> <li>Training requirements</li> </ul> Also refer to Section 8 of this document on blood and body fluid exposure. | <ul> <li>*NS Reg.</li> <li>* HCRF Reg., sec. 8, 9(1) and (3), 113 and 114</li> <li>BP-RPAP</li> <li>BP-CDS (Best Practices for Cleaning, Disinfection &amp; Sterilization of Medical Equipment in All Health Care Settings)</li> </ul> |  |
|-----|---|---|--|--|
| 2.6 | There is a policy directing when gloves should be worn and the type of glove to be worn.    | <ul> <li>The policy and procedures should include:</li> <li>Wear the correct size and type of gloves</li> <li>Always clean hands before applying and after removal of gloves</li> <li>Apply gloves immediately before the clean/aseptic procedure and discard immediately after the task/procedure is completed</li> <li>Glove use should be part of a comprehensive hand -hygiene</li> </ul>   | <ul> <li>* HCRF Reg., sec. 8, 9 and 10</li> <li>BP-RPAP</li> </ul>   |  |

|     |  | <ul> <li>Training should include demonstration on glove removal to prevent hand contamination</li> <li>Contact precautions require the use of gloves for specific infections that may be transmitted on the hands of health care workers e.g. methicillin-resistant Staphylococcus aureus (MRSA), vancomycin-resistant enterococcus (VRE), Clostridium difficile, Acinetobacter baumannii and the agents of infectious diarrheas.</li> </ul>   |   |  |
|-----|--|--|---|--|
| 2.7 | There is a policy directing when eye protection and masks should be worn to protect the eyes, nose and mouth of workers. | <ul> <li>The policy and procedures should include:</li> <li>Mask and eye protection is worn to protect the eyes, nose and mouth when it is anticipated that a procedure or care activity is likely to produce splashes or spays of body fluids, blood, secretions or excretions</li> <li>The type of facial protection to be worn masks are worn when within 2 metres of a person coughing and or sneezing</li> <li>Droplet precautions require the use of masks and eye protection when caring for</li> </ul> | <ul> <li>* HCRF Reg., sec. 8, 9, 10 and 11(b)</li> <li>BP-RPAP</li> </ul> |  |

|     |  | persons known or suspected of having an infection that can be transmitted by large respiratory droplets (e.g., adenovirus, influenza and parainfluenza viruses, rhinovirus, human metapneumovirus, respiratory syncytial virus - RSV), rubella, mumps and Bordetella pertussis.  |  |  |
|-----|--|--|--|--|
| 2.8 | There is a policy directing when gowns are required to be worn and the type of gown to be worn to protect workers. | <ul> <li>The policy and procedures should include:</li> <li>Gowns are worn when there is a risk of splashing or spaying of body fluids, blood, secretions or excretions on the forearms and/or clothing of the health care worker</li> <li>Gowns are made of an appropriate material for the task e.g. fluid resistant</li> <li>Gowns are discarded immediately after use and are not re-worn</li> <li>Workers are instructed in donning and doffing procedures to prevent self contamination</li> <li>Contact precautions require the use of gowns as an additional precaution against specific communicable diseases e.g. methicillin-resistant</li> </ul> | <ul> <li>* HCRF Reg., sec. 8, 9 and 10</li> <li>* OHSA, sec. 27</li> <li>BP- RPAP</li> </ul> |  |

|      |  | Staphylococcus aureus (MRSA), vancomycin-resistant enterococcus (VRE), Clostridium difficile, Acinetobacter baumannii and the agents of infectious diarrheas.  (formatting problem)  |  |  |
|------|--|--|--|--|
| 2.9  | There is a process in place to educate staff in the use and maintenance of personal protective equipment (PPE).                | <ul> <li>Educational material is readily available and accessible</li> <li>Education is provided on a regular basis and worker competency is maintained</li> <li>Worker competency is evaluated</li> </ul>   | • * HCRF Reg., sec. 8, 9 and 10                                    |  |
| 2.10 | A sufficient quantity of personal protective equipment is stored in a convenient, clean and sanitary location when not in use. | <ul> <li>Assessments are conducted to determine the quantity and type of personal protective equipment required in routine and emergency situations.</li> <li>An inventory of PPE for routine use is maintained</li> <li>A contingency plan is in place for the procurement of additional and/or specialized PPE as required</li> <li>Also refer to section on emergency management</li> </ul> | <ul> <li>* HCRF Reg., sec. 8, 9 and 10</li> <li>BP-RPAP</li> </ul> |  |

| 2.11 | There is a policy and there are procedures directing when additional transmission-based precautions (i.e., airborne precautions, droplet precautions and contact precautions) should be followed. | Additional transmission-based precautions should be followed when either the clinical symptoms indicate a likely cause, or when the specific infectious agent is identified.  Policies and procedures should address:  Use of personal protective equipment, including selection, care, proper fit and procedures for donning and doffing  Use and disposal of equipment and materials.  Hand hygiene.  Education of staff.  Environmental cleaning.  Appropriate signage. | • *HCRFR sec. 9<br>• P-RPAP   |  |
|------|---|--|---|--|
| 2.12 | Health care workers are given adequate education as to the nature of the infections and the precautions being taken.  | <ul> <li>Education should include:</li> <li>Signs and symptoms of disease and risk of transmission.</li> <li>Disease-specific precautions to be taken (additional precautions)</li> <li>Appropriate use, cleaning and disposal of equipment and materials.</li> <li>Use of PPE</li> <li>isolation procedures</li> <li>Patient isolation and cohort guidelines and procedures</li> <li>Patient transport procedures</li> </ul>  | <ul> <li>BP -RPAP (Annex A,B,C)</li> <li>Annex A: Antibiotic Resistant Organisms in All Health Care Settings</li> <li>Annex B: Transmission of Acute Respiratory Infection</li> <li>Annex C: Testing, Surveillance and Management of clostridium difficile infection</li> </ul> |  |

| 2.13 | The policy regarding airborne precautions requires the use of respiratory protection including N95 respirators.              | The policy must reflect that only respirators that are NIOSH certified N95 or higher efficiency are acceptable for infectious diseases spread by the airborne route.  Also refer to Section 9.0 on Respiratory Protection.   | <ul> <li>* HCRF Reg., sec. 8, 9 and 10(1)</li> <li>* OHSA, sec. 25(2) (h)</li> <li>BP-RPAP</li> </ul> |  |
|------|--|--|---|--|
| 2.14 | The policy regarding droplet precautions requires the use of fluid-resistant procedure/surgical masks to protect the worker. | Verify with the manufacturers or suppliers that the masks in use are fluid resistant.  | <ul> <li>* HCRF Regs., sec. 8, 9 and 10</li> <li>OHSA, sec. 25(1) (2)h</li> <li>BP-RPAP</li> </ul>    |  |
| 2.15 | The need for eye protection (safety glasses, goggles and face shields) from droplet-spread illnesses is assessed.            | <ul> <li>Where eye protection is required, based on the assessment, the employer must ensure that:</li> <li>Appropriate PPE is provided and is worn</li> <li>Staff are trained in its use including donning and doffing</li> <li>Procedures are in place for cleaning and disinfecting reuseable PPE between uses</li> </ul> | <ul> <li>* HCRF Reg., sec. 9(4) and 10(1)</li> <li>BP-RPAP</li> </ul>                                 |  |
| 2.16 | Written procedures address precautions to be taken for the   | The transportation procedures should include:  • Conducting a risk assessment to   | <ul><li>* HCRF Reg., sec. 8 and 9</li><li>BP-RPAP</li></ul>   |  |

transportation of infectious patients/residents to protect the health and safety of workers and the environment.

- identify when patients/residents must wear a surgical/procedure mask during transport.
- Safe work practices during patient/resident transport.
- Safe work practices in patient/resident receiving areas.
- If a patient/resident under airborne isolation precautions must be transferred, a plan and procedure are in place that addresses worker health and safety.

The procedures for transport should address:

- Communication with receiving facility regarding potential hazards.
- Protection of worker health and safety (e.g., use of N95 respirators).
- Protection of environment (e.g., placement of surgical mask on patient/resident).
- Route of travel (internal and external).
- mode of transport
- Requirements for cleaning and disinfection post-transfer.

## 3.0 Health Care Worker Immunization

This section addresses immunization of health care workers who are at risk of exposure to communicable diseases. The immunization program should be based on the current recommendations of the National Advisory Committee for Immunization (NACI). Hospitals should also refer to applicable OHA/OMA surveillance protocols.

| Section | Element  | Suggestions for Development, Implementation and Evaluation  | Status (Y/N<br>/ Partial,<br>N/A) | Standard or Rationale   | Comments |
|---------|--|---|-----------------------------------|---|----------|
| 3.1     | The organization has an immunization program that is appropriate to the workplace. | <ul> <li>An immunization program should consider:         <ul> <li>Education about vaccine-preventable diseases in the workplace.</li> <li>Assessment of the need for immunization.</li> <li>Administration of (with worker consent), or referral for, immunization.</li> <li>Documentation and follow-up.</li> <li>use of a declination form for workers who refuse/decline immunization</li> </ul> </li> <li>Immunization policies at individual workplaces will depend on the size and type of the workplace and the risks of exposure.</li> <li>The following immunizations are recommended for all non-immune</li> </ul> |                                   | <ul> <li>* HCRF Reg., sec. 9(1) and (5)</li> <li>NACI (National Advisory Committee for Immunization)</li> <li>OHA/OMA CDSP</li> </ul> |          |

#### contraindicated:

- Diphtheria
- Hepatitis B
- Influenza
- Measles
- Mumps
- Polio
- Tetanus
- Varicella

In addition, selected immunizations may be required for workers in specific workplaces based on a special risk:

- Hepatitis A (workers in facilities where there is an increased risk of exposure to Hepatitis A)
- Meningococcal (if warranted following assessment of exposure)
- Rubella (women of childbearing age; any health care worker who could transmit infection to high-risk individuals)

It is recognized that not all organizations will offer or administer all the immunizations listed. However, it is recommended that a record of immune status of staff be kept (see Section 3.5)

Payment for vaccinations that are

|     |  | not covered elsewhere should be addressed in immunization policies.   |   |  |
|-----|--|---|---|--|
| 3.2 | There is a policy for annual immunization against influenza for health care workers unless contraindicated.            | Annual influenza vaccination is highly recommended for everyone (unless contraindicated), and is a free service for Ontario residents.  | <ul> <li>BP- RPAP Appendix B</li> <li>OHA/OMA</li> <li>OHPIP (Ontario Health<br/>Plan for an Influenza<br/>Pandemic, Ministry of<br/>Health &amp; Long Term Care,<br/>chapter 7)</li> </ul> |  |
| 3.3 | Immunization for influenza is actively promoted through onsite and mobile immunization programs.                       | <ul> <li>An active annual influenza program should be developed that includes:</li> <li>Immunization of staff.</li> <li>Education regarding signs and symptoms.</li> <li>Benefits, side effects and contraindications of immunization.</li> <li>Prevention and control of influenza.</li> </ul> | <ul> <li>OHA/OMA CDSP</li> <li>BP-RPAP Appendix B</li> </ul>  |  |
| 3.4 | The policy related to influenza includes directions for health care workers who are not vaccinated during an outbreak. | Policies should address issues such as:  • work restrictions/reassignment  • use of chemoprophylaxis  | <ul> <li>OHA/OMA CDSP</li> <li>BP-RPAP Appendix B</li> </ul>  |  |

| 3.5 | There is a policy regarding documentation of immunity for new workers and workers at risk.    | <ul> <li>This policy should include:</li> <li>a review of immune status to measles, mumps, rubella, Hepatitis B and varicella for newly employed health care workers.</li> <li>immunization history.</li> <li>results of recent TB skin tests provided by previous employer, school or health practitioner</li> </ul> | • OHA/OMA      |  |
|-----|---|---|----------------|--|
| 3.6 | A policy is in place for the protection of susceptible immunocompromised health care workers. | <ul> <li>The policy should address referral to the physician for:</li> <li>Consideration for immunization.</li> <li>Fitness for work.</li> <li>Guidelines for work restrictions.</li> </ul>   | • OHA/OMA CDSP |  |

### 4.0 Environmental Infection Control

This section includes the selection, use and handling of antiseptics, disinfectants and decontaminants.

Also included are work practices and precautions to protect health care workers from infections in the work environment. A number of legislated requirements apply to this section.

The Environmental Cleaning Best Practices Educational Toolkit is an excellent resource for developing policies and procedures. It is available through the Regional Infection Control Networks (RICNs). See Appendix B for the web link.

| Section | Element  | Suggestions for Development, Implementation and Evaluation   | Status (Y/N<br>/ Partial,<br>N/A) | Standard or Rationale  | Comments |
|---------|--|--|-----------------------------------|--|----------|
| 4.1     | The housekeeping rooms and closets are well maintained, in accordance with good hygiene practices. | Cleaning carts and cleaning closets are cleaned daily to maintain a clean and sanitary environment   |                                   | <ul> <li>* HCRF Reg., sec. 111</li> <li>BP-ECPCI (Best Practices for Environmental Cleaning for the Prevention of Infections in All Health Care Settings, PIDAC)</li> </ul>  |          |
| 4.2     | Cleaning procedures minimize the contamination of the air by dust or aerosols.                     | Cleaning procedures utilize wet processes or microfibre materials to ensure contaminants are not dispersed into the air and redistributed in the environment |                                   | <ul> <li>* HCRF Reg., sec. 111(2)</li> <li>BP-ECPCI</li> <li>BP-ECBPPET         (Environmental Cleaning         Best Practices Educational         Toolkit, RICN)</li> </ul> |          |

| 4.3 | Routine cleaning is done according to a schedule and workers are trained in cleaning procedures.  | <ul> <li>Written schedules and procedures are available to all cleaning staff</li> <li>The frequency of cleaning and disinfecting is based on the environment, the type of surface to be cleaned, the amount of activity in the area, the risk of transmission of infection, and the degree of soiling</li> </ul> | <ul> <li>* HCRF Reg., sec. 8 and 9</li> <li>BP-ECPCI</li> <li>BP-ECBPPET</li> </ul>                  |  |
|-----|---|---|--|--|
| 4.4 | There are policies and procedures to direct workers responsible for cleaning contaminated equipment to protect themselves from exposure to pathogens. | <ul> <li>Policies and procedures address:</li> <li>Safe work practices.</li> <li>Use and wearing of personal protective equipment.</li> <li>Workers are provided with training in best practices and the use and wearing of PPE</li> </ul>  | <ul> <li>* HCRF Reg., sec. 8 and 9</li> <li>BP-RPAP</li> <li>BP-ECPCI</li> <li>BP-ECBPPET</li> </ul> |  |
| 4.5 | PPE, including gloves, are worn for cleaning up spills of body fluids, including blood.   | If there is a risk of splashing, a face shield and gown are worn. For a large spill, overalls, gowns or aprons and boots or shoe covers are worn. PPE is removed before leaving the location of the spill. Hands should then be washed.   | <ul><li>* HCRF Reg., sec. 10 and 11(b)</li><li>BP-RPAP</li></ul>                                     |  |

| 4.6 | Floors, counter tops and other surfaces contaminated with blood or body fluids are cleaned and then disinfected with an appropriate disinfectant (e.g., "hospital grade disinfectant"). | <ul> <li>clean up spill and disinfect area with a hospital grade disinfectant</li> <li>ensure adequate contact time for chemical, according to manufacturer instructions</li> <li>dispose material in regular waste container or biomedical waste container (depending on size of spill and regional/municipal requirements)</li> </ul> | <ul> <li>* HCRF Reg., sec. 9(6) (13)</li> <li>BP-ECPCI</li> <li>BP-ECBPPET</li> </ul> |  |
|-----|---|---|---|--|
| 4.7 | Housekeeping staff use the same precautions to protect themselves during the cleaning of rooms of discharged patients/residents as they did during their stay e.g. contact precautions  | Precautions in place during patient/resident stay remain in effect until terminal cleaning is completed.  | • BP-ECBPPET  |  |

## 5.0 Occupational Exposure of Health Care Workers to Communicable Diseases

This section includes risk control measures that should be in place to prevent and manage occupational exposure to communicable diseases.

The Ontario Hospital Association and Ontario Medical Association have established a joint committee that regularly meets to develop, review and revise protocols on preventive and post exposure measures for occupational exposure to infectious/communicable diseases/illnesses. These protocols are an excellent resource and should be used to develop policies and procedures for this section. Refer to Appendix B for the web link.

| Section | Element   | Suggestions for Development, Implementation and Evaluation   | Status (Y/N<br>/ Partial,<br>N/A) | Standard or Rationale  | Comments |
|---------|---|--|-----------------------------------|--|----------|
| 5.1     | A risk assessment is undertaken to determine the risk of health care worker exposure to infections and communicable diseases. | <ul> <li>Risk assessment may question:</li> <li>Which infectious agents are present, or could be present?</li> <li>What is the mode of transmission of infectious agents?</li> <li>Where in the workplace could the agent be?</li> <li>Who is at risk of exposure to the agent?</li> <li>What existing controls are in place?</li> <li>What additional controls are required?</li> <li>What are the personal protective equipment needs of workers?</li> </ul> |                                   | <ul> <li>PHAC-PCOI</li> <li>OHA/OMA CDSP</li> <li>BP - RPAP</li> </ul> |          |

|     |   | Refer to Appendix C for a list of communicable diseases significant to occupational health.  |   |  |
|-----|---|--|---|--|
| 5.2 | Risk control measures, policies and procedures have been developed to prevent health care worker exposure to infections and communicable diseases, based on the risk assessment undertaken. | Measures, policies and procedures are published, actively communicated and readily available to workers.  Training related to safe work practices is provided.                               | <ul> <li>* HCRF Reg., sec. 8 and 9</li> <li>PHAC-POI</li> <li>OHA/OMA</li> <li>BP-RPAP</li> </ul> |  |
| 5.3 | Risk control measures to manage health care workers exposed to or infected with communicable diseases have been developed in accordance with established protocols.                         | Protocols for the treatment of occupational injuries and illnesses such as needle sticks, exposure to communicable diseases and active infection are based on currently accepted guidelines. | <ul><li>PHAC-PCOI</li><li>OHA/OMA</li><li>BP-RPAP</li></ul>                                       |  |

| 5.4 | Health care workers providing direct care to people with specific disease(s) are screened to determine their immune status. | A pre-placement/employment screening program is in place to determine the immune status of health care workers.  The evaluation should include the following:  • Medical/health history including vaccination status and conditions that may predispose staff to acquiring or transmitting communicable diseases.  • Assessment of latent or active TB  • Serologic testing for select vaccine preventable diseases if indicated |  | • OHA/OMA • BP-IPCP |  |
|-----|---|--|--|---------------------|--|
|-----|---|--|--|---------------------|--|

# 6.0 Occupational Health in Outbreak Response

This section includes the basic elements for an occupational health surveillance program and outbreak response. When applied to occupational health and safety, surveillance involves collection of data, analysis and dissemination of data on hazards that have endangered or may endanger the health care worker. "Best Practice Guidelines for Surveillance of Health Care Associated Infections" should be used as a reference when completing this section. Although this resource is primarily intended for the surveillance of infections in patients in acute care and residents in long term care; the same principles apply to occupational health. An example is surveillance of healthcare workers following exposure to a patient with active TB. Another example of a surveillance activity is data collection to monitor hand hygiene compliance among health care workers. Your local regional infection control network (RICN) can assist you in developing a surveillance program. Most organizations will already have a pandemic plan. This should be reviewed annually in consultation with the JHSC. A number of reporting requirements apply to this section.

| Section | Element  | Suggestions for Development, Implementation and Evaluation  | Status (Y/N<br>/ Partial,<br>N/A) | Standard or Rationale   | Comments |
|---------|--|---|-----------------------------------|---|----------|
| 6.1     | A surveillance program is in place to aid in the rapid identification of communicable disease outbreaks that could affect the health of workers. | <ul> <li>A Surveillance program should include:         <ul> <li>regular review of statistics for trends and analysis</li> <li>review of worker illnesses, absenteeism and infection rates</li> <li>review of patient/resident statistics for infectious diseases with potential to affect workers.</li> <li>reporting mechanism for workers to report illnesses, symptoms and potential exposures</li> </ul> </li> <li>Infection control data should be</li> </ul> |                                   | <ul> <li>* OHS Act, sec. 25(2) (h)</li> <li>* HCRF Reg., sec. 8 and 9</li> <li>* Reg. 965 – Hospital         Management, under         Public Hospitals Act, sec.         4(1) (e)</li> <li>LTC-PM – Criteria M3.19         to M3.26 (Long Term Care         Homes Program Manual,         Ministry of Health and         Long Term Care)</li> <li>BP-SHCAI (Best Practices         for Surveillance of Health         Care Acquired Infections,         PIDAC)</li> <li>BP - RPAP - Annex A,B,C</li> </ul> |          |

|     |  | reviewed regularly and, if necessary, action should be taken by responsible parties within the workplace.  Surveillance documents are available from Public Health Ontario for the following:  Acute respiratory surveillance Antibiotic resistant organism surveillance  Clostridium difficile surveillance |  |  |
|-----|--|--|--|--|
| 6.2 | The surveillance program should include a strategy and formal process for communication between infection control staff and occupational health staff. | A process that facilitates good communication is required to ensure infections among staff are identified during an outbreak.  | <ul><li>PHAC-PCOI</li><li>BP-SHCAI</li><li>BP -IPCP</li></ul>  |  |
| 6.3 | The facility has an emergency outbreak response plan developed in consultation with the JHSC and Infection Control Committee that addresses the health | The emergency outbreak response plan should have criteria and direction to address both an internal or external outbreak that could affect the health and safety of workers.  The occupational health components of an emergency   | <ul> <li>LTC-FPM – Criteria M3.24</li> <li>HC-CPIP</li> <li>OHPIP (chapter 5)</li> <li>PHAC - CPIP - Annex G, H<br/>(Canadian Pandemic<br/>Influenza Plan, Public<br/>Health Agency of Canada)</li> <li>PHAC -GHAP- (Guidelines<br/>for The prevention of</li> </ul> |  |

| and safety of worl | kers. outbreak response plan should              | Health care Acquired     |
|--------------------|--|--------------------------|
|                    | include:   | Pneumonia, Public Health |
|                    | Risk assessment procedures                       | Agency of Canada)        |
|                    | List of key government contacts                  |                          |
|                    | Internal communication                           |                          |
|                    | strategy   |                          |
|                    | Specialized education and                        |                          |
|                    | training strategy (access to and                 |                          |
|                    | procurement of training).                        |                          |
|                    | Personal protective equipment                    |                          |
|                    | (access and procurement).                        |                          |
|                    | Specialized equipment (access                    |                          |
|                    | and procurement).                                |                          |
|                    | <ul> <li>Mock drills (testing and</li> </ul>     |                          |
|                    | evaluation).                                     |                          |
|                    | <ul> <li>Specialized response teams.</li> </ul>  |                          |
|                    | Guidelines for safe work                         |                          |
|                    | practices in the provision and                   |                          |
|                    | support of patient/resident                      |                          |
|                    | care.  |                          |
|                    | <ul> <li>Psychological and social</li> </ul>     |                          |
|                    | support services.                                |                          |
|                    | <ul> <li>Decontamination strategy for</li> </ul> |                          |
|                    | workers.   |                          |
|                    | Environmental services                           |                          |
|                    | strategy.  |                          |
|                    | Environmental and plant                          |                          |
|                    | maintenance strategy.                            |                          |
|                    | Screening and surveillance of                    |                          |
|                    | workers.   |                          |
|                    | The protocol should reflect current              |                          |
|                    | practice, and should be readily                  |                          |
|                    | accessible to all workers.                       |                          |

|     |   | Guidance for development of the outbreak protocol should be sought from the appropriate public health authority. The protocol should be developed in consultation with the JHSC and external resources as appropriate.  The Public Health Agency of Canada has published a toolkit with pandemic preparedness exercises for health care and emergency social services.  |  |  |
|-----|---|---|--|--|
| 6.4 | A current list of key contacts includes contacts that are significant in occupational health. | The emergency plan should include a procedure for a fan-out protocol. Occupational health staff should be included in the notification or callout list for outbreak response.  Additional stakeholder groups who are key contacts may include:  • Members of the JHSC.  • Union locals.  In addition, the local office of the Ministry of Labour should be included as part of the key contacts list in case notification is required under sections 51 or 52 of the OHS Act. | <ul> <li>* OHSA, sec. 51 and 52</li> <li>HRFR, sec. 5</li> <li>PHAC -GHAP</li> <li>PHAC - CPIP - Annex G, H</li> </ul> |  |

| 6.5 | An outbreak management team includes occupational health staff and representation from the JHSC.                        | The composition of the outbreak management team should be addressed in the outbreak protocol.  The "Team" should have a process for communicating among its members.  | <ul> <li>OHPIP (chapter 7)</li> <li>PHAC - CPIP - Annex G, H</li> </ul>  |  |
|-----|---|---|--|--|
| 6.6 | Provision is made for<br>the JHSC to be<br>informed and kept up<br>to date about the<br>status of outbreaks.            | There is a communication strategy to keep the JHSC informed on the status of outbreaks.  There is a person/position designated with this responsibility.  | <ul> <li>* OHS Act, sec. 9(18)</li> <li>* HCRF Reg., sec. 8 and 9, related to measures and procedures to be developed</li> <li>* Reg. 965 – Hospital Management, under Public Hospitals Act, sec. 7(6) (JHSC may request member of Medical Advisory Committee to advise JHSC)</li> </ul> |  |
| 6.7 | Resources are available for immediate training of potentially affected staff in safe work practices during an outbreak. | <ul> <li>Signs and symptoms of disease and risk of transmission.</li> <li>Disease-specific precautions.</li> <li>Use and disposal of equipment and materials as appropriate.</li> <li>Hygiene practices.</li> </ul> | • BP-SHCAI   |  |

| 6.8 | A method to communicate vital information to staff has been developed in consultation with the JHSC and is included in the outbreak protocol. | A communication plan should be developed for staff.  The senior executive of the organization should endorse the plan.  The methods of timely communication may depend on the nature of the outbreak (e.g., electronic, open forum and media release). | <ul> <li>BP-SHCAI</li> <li>OHPIP (chapter 7)</li> <li>PHAC - CPIP - Annex G, H</li> <li>PHAC -GHAP</li> </ul>   |  |
|-----|---|--|---|--|
| 6.9 | There is a procedure for contact tracing among staff.   | This is required to determine if staff have been exposed to a communicable disease.  Contact tracing may be in consultation with the local public health authority.  | <ul> <li>* OHS Act, sec. 25(2) (h)</li> <li>* HCRF Reg., sec. 8 and 9</li> <li>* Reg. 965 – Hospital Management, under Public Hospitals Act, sec. 4(1) (e)</li> <li>*HPP Act</li> <li>BP-SHCAI</li> </ul> |  |

| 7.0 Waste and Spills |   | This section includes control measures to protect workers from biological hazards associated with biomedical waste including sharps and spills of blood and body fluids.   |                                   |   |          |
|----------------------|---|--|-----------------------------------|---|----------|
| Section              | Element   | Suggestions for Development, Implementation and Evaluation   | Status (Y/N<br>/ Partial,<br>N/A) | Standard or Rationale   | Comments |
| 7.1                  | The workplace has an overall waste management program in place. | Following the identification of wastes, the program must address the needs of the organization as they relate to the handling and disposal of infectious and biomedical wastes.  Policies and procedures must be developed to direct the program. The program should include:  Collection Containment Identification of waste. Transportation (internally and externally) Handling Storing Treatment (as applicable) Disposal through an approved licensed waste management contractor  Workers must be trained regarding the hazards of waste and the |                                   | <ul> <li>* HCRF Reg., sec. 8, 9 and 116</li> <li>LTC-FPM - Criteria O1.4 to O1.7</li> <li>CSA Z317.10</li> <li>CSA Z316-07</li> <li>MBWO - (Management of Biomedical Waste in Ontario, Ministry of the Environment, guideline C-4)</li> </ul> |          |

|     |  | The program should reflect the requirements of the Regulations for Health Care and Residential Facilities, the current CSA standards, Guidelines from the Ministry of Environment and Energy regarding waste disposal and the local municipal waste bylaws.  |  |  |
|-----|--|--|--|--|
| 7.2 | Sharps containers are readily available where required throughout the workplace. | Sharps containers are required as close as possible to the location where sharps are used.  Sharps containers must be:  Suitable design to prevent materials from being removed.  Constructed of puncture-resistant materials.  Suitable size for the material they will contain.  Used appropriately and not filled beyond the indicated "fill" line. | <ul> <li>* HCRF Reg., sec. 113</li> <li>CSA Z316.6-07</li> </ul> |  |

| 7.3 | Other biomedical hazardous waste is disposed of in suitable receptacles that meet the criteria as defined under the Health Care and Residential Facilities Regulation. | <ul> <li>Leak-proof and have a tight-fitting cover and clear markings as biomedical waste.</li> <li>Emptied daily or as the situations may reasonably require.</li> </ul>  | <ul> <li>* HCRF Reg., sec. 115 and 116</li> <li>CSA Z317.10</li> </ul>                   |  |
|-----|--|--|--|--|
| 7.4 | Procedures are available for cleanup of large blood spills and body fluid.   | Procedures should indicate the precautions to be taken such as wearing gloves, use of appropriate germicidal agents and disposal of wastes created during cleanups.  Workers must be provided with training and required equipment for cleaning up blood spills. | <ul> <li>* OHSA, sec. 25</li> <li>* HCRF Reg., sec. 8 and 9</li> <li>BP-ECPCI</li> </ul> |  |

### 8.0 Blood and Body Fluid Exposure

This section includes control measures to protect workers from exposure to blood and body fluids. This includes risk assessment, use of safety engineered needles and devices and safe work practices as well as post-exposure requirements. The OHA/OMA Blood Borne Diseases Surveillance Protocol for Ontario Hospitals is an excellent resource for developing a documented post-exposure program.

| Section | Element   | Suggestions for Development, Implementation and Evaluation  | Status (Y/N<br>/ Partial,<br>N/A) | Standard or Rationale  | Comments |
|---------|---|---|-----------------------------------|--|----------|
| 8.1     | A record and log are kept of all blood and body fluid exposures.  | <ul> <li>The log should record:</li> <li>Date, time and location of the incident.</li> <li>Worker's task at time of the exposure.</li> <li>Any equipment or device involved in the exposure.</li> <li>First aid and advice given to the worker.</li> <li>Post-exposure assessment and prophylaxis if required.</li> <li>Actions taken following each exposure.</li> </ul> |                                   | <ul> <li>* OHSA, sec. 25(2) (h)</li> <li>* WSI Act and First Aid<br/>Reg. 1101 (where injury<br/>occurred)</li> </ul>  |          |
| 8.2     | Health care workers exposed to blood-borne pathogens (or potential) are assessed and treated as outlined in written procedures that follow current guidelines | The workplace must have policies and procedures for the management and follow-up of workers exposed to blood-borne pathogens either through an injury (e.g., from sharps) or exposure through mucous membranes or non-intact skin.  Post-exposure follow-up   |                                   | <ul> <li>* OHS Act, sec. 25(2) (h)</li> <li>* HCRF Reg., sec. 8 and 9</li> <li>OHA/OMA (Blood-borne diseases protocol)</li> <li>* WSIA Act (arrange and pay for transportation of injured worker)</li> </ul> |          |

|     |   | procedures should be well known by and readily available to potentially exposed workers and other designated staff who will assess and, if required, initiate procedures rapidly.  All exposures should be reported immediately. Assessment of exposed staff should occur as soon as possible, preferably within two hours of exposure, to determine if prophylaxis and surveillance are required. This may require sending staff off site for an immediate medical assessment. |  |  |
|-----|---|---|--|--|
| 8.3 | Post-exposure prophylaxis (PEP), including Hepatitis B immune globulin, and PEP starter kits are available on site, or arrangements have been made for rapid access to PEP. | A process is in place to send staff for immediate assessment, counseling and post exposure prophylaxis if required.   | <ul> <li>OHA/OMA CDSP (Blood-borne diseases protocol)</li> <li>*WSIA Act (arrange and pay for transportation of injured worker)</li> </ul> |  |
| 8.4 | A risk assessment is conducted for the prevention of needle stick and sharps  | <ul> <li>A risk assessment should include a review of:</li> <li>workers most frequently injured, and location/department where</li> </ul>   | <ul><li>*OHSA, sec. 25</li><li>*HCRF Reg., sec. 8 and 9</li><li>*NS Reg</li></ul>  |  |

|     | injuries.   | <ul> <li>injuries occurred</li> <li>circumstances that contributed to injuries</li> <li>equipment and devices most often involved (including safety engineered needles)</li> <li>devices or equipment that carry the highest risk of transmission</li> <li>steps taken by the organization to minimize injuries</li> </ul> |  |  |
|-----|---|--|--|--|
| 8.5 | Safety-engineered needles must be provided and used when the use of a hollow bore needle is required. There are some exceptions e.g. emergency situations and when the use of the safety needle pose a risk of harm to the worker, another worker, the person receiving the injection or the public interest. Refer to the PSHSA planning guide "Implementation of Safety Engineered Medical Sharps" for more detailed information. | Suppliers are consulted on the availability of safety-engineered medical devices.  Appropriate safety-engineered medical devices are implemented where available. Training on the use of safety needles is provided.   | <ul> <li>* OHS Act, sec. 25(2) 9(h)</li> <li>* NS-Reg</li> </ul> |  |

| 9.0 Respiratory Protection |  | This section includes requirements for a respiratory protection program including selection, fit testing, training, care of and documentation for the use of N95 or better respirators   |                                   |   |          |  |
|----------------------------|--|--|-----------------------------------|---|----------|--|
| Section                    | Element  | Suggestions for Development, Implementation and Evaluation   | Status (Y/N<br>/ Partial,<br>N/A) | Standard or Rationale   | Comments |  |
| 9.1                        | A written respiratory protection program has been prepared in accordance with current standards. | <ul> <li>The written program should address:</li> <li>Roles and responsibilities.</li> <li>Hazard assessments to determine which workers are at risk and require respirators.</li> <li>Selection of appropriate respirators.</li> <li>Health assessment of respirator users.</li> <li>Proper fit testing.</li> <li>Use of respirators including care, storage, cleaning and disposal as appropriate.</li> <li>Training workers in their proper use.</li> <li>Appropriate record keeping and program evaluation.</li> </ul> |                                   | <ul> <li>* OHS Act, sec. 25 and 26</li> <li>* HCRF Reg., sec. 10</li> <li>CSA Z94.4-11</li> </ul> |          |  |

| 9.2 | A protocol for respirator selection for use with respect to infectious diseases is in place.                              | Respirator selection should be based on current information from the infection control or occupational hygiene field.  The current accepted minimum standard for airborne respiratory infections is a NIOSH-certified respirator classified as N95 or better.   | <ul> <li>* OHS Act, sec. 25(2) (h)</li> <li>* HCRF Reg., sec. 8 and 9</li> <li>CSA Z94.4-11</li> </ul> |  |
|-----|---|---|--|--|
| 9.3 | Staff required to wear tight-fitting respirators (including N95 or better) have a health assessment prior to fit testing. | The health assessment for specific respirator use is intended to identify medical restrictions that may preclude workers from using required respirators.  The results of the health assessment should indicate only whether the worker:  • has no restrictions,  • has some specific restrictions, or  • is not permitted to use the respirator.  Health information obtained during A health assessment is considered confidential. | <ul> <li>* OHS Act, sec. 25 and 26</li> <li>* HCRF Reg., sec. 10</li> <li>CSA Z94.4-11</li> </ul>      |  |

| 9.4 | All staff required to wear tight-fitting respirators have been fit tested. Records are maintained.      | Fit testing must be performed following accepted procedures as outlined in the CSA standards.  Fit testing should be completed at least every two years or more often if a change in a worker's physical condition requires it.  | <ul> <li>* OHS Act, sec. 25 and 26</li> <li>* HCRF Reg., sec. 10</li> <li>CSA Z94.4-11</li> </ul> |  |
|-----|---|--|---|--|
| 9.5 | Staff required to wear respirators have received appropriate training as outlined in CSA Standard Z94.4 | <ul> <li>Use of respirators including how to wear one correctly and how to perform a user seal check.</li> <li>Removal of the respirator and other PPE in a manner designed to minimize spread of infection.</li> <li>Limitations of the respirator.</li> <li>Proper care of respirators, including storage, cleaning (if not single-use) and disposal.</li> <li>Exposure hazards.</li> <li>Applicable standards and legislation.</li> <li>Training is reviewed annually and more frequently as needed.</li> </ul> | <ul> <li>* OHS Act, sec. 25 and 26</li> <li>* HCRF Reg., sec. 10</li> <li>CSA Z94.4-11</li> </ul> |  |

### **10.0** Ventilation Requirements

This section includes general and specific ventilation requirements for health care facilities including negative-pressure isolation rooms, as well as requirements for the inspection, maintenance, service and repair of ventilation systems.

Key resources to use when developing policies and procedures are "Recommendations for the Prevention of Healthcare Associated Pneumonia", Public Health Agency of Canada; "Special Requirements for HVAC Systems in Healthcare Facilities", CSA; "Fundamentals of Infection Control during Construction, Renovation and Maintenance of Healthcare Facilities", CSA and "Canadian Tuberculosis Standards", Public Health Agency of Canada. The Ministry of Labour document "Ventilation & Inspection Report for Health care And Residential Facilities" provides a good overview of legislated responsibilities.

Refer to the laboratory section (12.0) for information about local exhaust ventilation requirements specific to laboratories, i.e., fume hoods, biological containment cabinets.

| Section | Element  | Suggestions for Development, Implementation and Evaluation   | Status (Y/N<br>/ Partial,<br>N/A) | Standard or Rationale   | Comments |
|---------|--|--|-----------------------------------|---|----------|
| 10.1    | General indoor ventilation adequate for the protection of health and safety of workers is provided by natural or mechanical means. | For mechanical ventilation, the CSA standard can be reviewed to determine specific ventilation requirements for patient/resident rooms, operating rooms, isolation rooms, intensive care, etc.  Replacement air must:  Be free of hazardous agents.  Not cause undue drafts or disperse dust.  Not interfere with exhaust systems. |                                   | <ul> <li>* HCRF, sec. 19(1) and 20</li> <li>CSA Z94.4-11</li> </ul> |          |

| 10.2 | The mechanical ventilation system is inspected every six months.   | An inspection of mechanical ventilation systems is required under the Regulations for Health Care and Residential Facilities at least every six months.  The person completing the inspection should be qualified by training and experience. A report of the inspection must be provided to the JHSC. | <ul> <li>* HCRF, Sec. 19(2) and (3)</li> <li>VIR HC</li> </ul>   |  |
|------|--|--|--|--|
| 10.3 | The mechanical ventilation system is serviced, repaired and maintained as required by the manufacturer, or more frequently if required by the inspection report. | In long-term care facilities, the Long Term Care Facilities Program Manual requires that air conditioning and air exchange systems be serviced at least once per year.   | <ul> <li>* HCRF, Sec. 19(5)</li> <li>CSA Z317.2-10</li> </ul>  |  |
| 10.4 | Engineering controls are used to capture hazardous agents at the source.   | Examples of local exhaust-control systems can include fume hoods, capture hoods and biological containment cabinets. Local exhaust ventilation is an example of applying controls at the source in accordance with the occupational hygiene hierarchy of controls.                                     | <ul> <li>* Reg. 490 - Designated<br/>Substances Regulations<br/>(as applicable)</li> <li>* Reg. 833 - Biological or<br/>Chemical Hazards</li> <li>CSA Z386-08 - (laser<br/>safety)</li> <li>CSA Z316.5-04 (fume<br/>hoods, local exhaust)</li> <li>LTC-DM</li> </ul> |  |

| 10.5 | Special ventilation requirements are implemented during construction projects.  | Construction, renovation and maintenance activities are a significant cause of potentially fatal infections for the occupants of any health care facility.  Plans for construction and renovation should be developed in consultation with infection control professionals and JHSC.  | • CSA Z317.13-07   |  |
|------|---|---|--|--|
| 10.6 | An infection control risk assessment has been conducted to determine the number of isolation rooms required for the facility. | Epidemiological data regarding communicable diseases in the community can be used for performing risk assessment to determine the need for isolation rooms.  Disease rates obtained from internal surveillance data as well as externally through local public health authorities should be reviewed in the risk assessment.  Construction of new isolation rooms needs to comply with the principles outlined in the CSA standard and supply and exhaust grills are located in rooms to ensure that all parts of them are adequately ventilated. | <ul> <li>CSA Z8000-11</li> <li>PHAC-CTS (Canadian Tuberculosis Standards, Public Health Agency of Canada)</li> <li>CDC-PTT (Guidelines for Preventing Transmission of mycobacterium Tuberculosis in Health Care Settings, Center for Disease Control)</li> <li>TIHC (Tuberculosis Information for Health Care Providers, 4th edition, Ontario Lung Association)</li> </ul> |  |

#### \*\*\* Note: The following elements in this section apply only to facilities with negative-pressure isolation rooms.

Airborne precautions include the use of negative-pressure rooms with the recommended number of air exchanges per hour

The Canadian Tuberculosis Standards call for 12 air changes per hour for high-risk activities.

To prevent the transmission of infection, for outbreak conditions:

- negative-pressure ventilation with at least 6 air exchanges per hour, 12 for new facilities
- HEPA filtration units that recirculate air back into the same room or ultraviolet germicidal irradiation are adjunctive measures for existing facilities. Air from the room should be exhausted outdoors ideally from the roof of the building. The exhausted air should pass through a HEPA filter if there is a risk of it re-entering the building or an adjacent occupied building.
- The monitoring and evaluation of isolation rooms to determine air exchange, direction of flow, pressure differential, air quality, etc., can be conducted by qualified individuals such as occupational hygienists, consulting engineers and other specialists. A JHSC worker member should be consulted about testing and have a right to be present at the start of testing.

- \* OHSA, sec. 9(19)
- PHAC-CTS
- CDC-PTT
- TIHC

| 10.8  | <ul> <li>There should be a written protocol for HEPA filters that includes:         <ul> <li>Maintenance and monitoring by qualified technician.</li> </ul> </li> <li>Frequency of maintenance and service in accordance with manufacturer's instructions.</li> <li>Documentation of service activities.</li> </ul> | Contaminated HEPA filters should be handled and disposed of as contaminated waste.    | • PHAC-CTS |  |
|-------|---|---|------------|--|
| 10.9  | Maintenance personnel wear personal respiratory protection if removing filters that have not been decontaminated.   | Refer to Section 9.0 of this document for more information on respiratory protection. | • PHAC-CTS |  |
| 10.10 | Windows and doors to isolation rooms for airborne infections are kept closed at all times. The door remains closed after discharge of patients/residents until sufficient time has elapsed to allow removal of airborne organisms.  | Use appropriate and recognized signage posted at the room entrance.                   | • CDC-PTT  |  |

| 10.11 | Engineering controls receive constant monitoring and maintenance. Monitors are located downstream of HEPA filters.  | Engineering controls should be included in the preventive maintenance program.  | • CDC-PTT |  |
|-------|---|---|-----------|--|
| 10.12 | Where possible, two power sources, regular and emergency, are connected to the engineering control system of airborne isolation rooms or areas.                   | Guidelines are in place to ensure 24-hour monitoring with appropriate alarms to activate a response.  Appropriate workers are trained in response procedures.   | • CDC-PTT |  |
| 10.13 | The directional airflow for negative-pressure isolation rooms is verified at least every six months when the isolation area is not in use and weekly when in use. | Airflow within isolation rooms is from areas of least contamination (the doorway) to areas of greatest contamination (the patient/ resident).  A smoke test can be conducted as a simple indicator to determine that the airflow direction is inward. Airflow is not interrupted by the placement of furniture or occupants.  Report any deviations in airflow to Engineering/Maintenance for correction. | • CDC-PTT |  |

| 11.0 Laundry Services |   | This section covers control measures for handling, cleaning, sorting and disposal of soiled linen.  Also refer to section 2 of this document   |                                   |   |          |  |
|-----------------------|---|--|-----------------------------------|---|----------|--|
| Section               | Element   | Suggestions for Development, Implementation and Evaluation   | Status (Y/N<br>/ Partial,<br>N/A) | Standard or Rationale   | Comments |  |
| 11.1                  | The organization has written measures and procedures for the handling, transportation, cleaning, storage and disposal of soiled linen to protect the health of workers. | <ul> <li>Handling soiled linen with a minimum of agitation and shaking to avoid contamination of air, surfaces and persons.</li> <li>Bagging of soiled linen at the point of containment.</li> <li>Use of impervious bags/containers for transportation to avoid any spills or drips of blood, body fluids, secretions or excretions.</li> <li>Training to avoid accidental exposure to hidden sharps.</li> <li>Instruction in the rolling and folding of heavily soiled linen.</li> <li>Removal and disposal of large amounts of blood and excrement using proper procedures (spraying should be avoided).</li> <li>Transportation of clean and dirty linen in separate carts.</li> </ul> |                                   | <ul> <li>* HCRF Reg., sec. 9(1) and (13)</li> <li>BP- ECPCI</li> <li>* NHA</li> </ul> |          |  |

|      |   | <ul> <li>Cleaning and disinfecting dirty linen carts.</li> <li>Washing or disposal of linen bags (linen bags can be washed in the same cycle as the linen, or disposed of after each use).</li> <li>The protocol should also address additional precautions for the handling and treatment of linen from persons diseases spread by indirect contact.</li> </ul> |   |  |
|------|---|--|---|--|
| 11.2 | All caregivers and laundry workers are trained in procedures for handling of soiled linen.  | Training of workers should be appropriate to the task/position they perform and the risk of infectious diseases. Training must be documented.  | <ul><li>* HCRF Reg., sec. 9(4)</li><li>BP-ECPCI</li></ul> |  |
| 11.3 | Laundry workers are made aware of the risk of exposure to sharps in linen and laundry bags. | There are written procedures for workers exposed to sharps in laundry. Refer to Section 9 of this document on blood and body fluid exposure for additional information related to sharps.  | <ul><li>* HCRF Reg., sec. 9</li><li>BP-ECPCI</li></ul>    |  |

| 11.4 | Workers wear appropriate protective equipment such as gloves, gowns or aprons when handling soiled linens and during disinfecting procedures. | <ul> <li>There is a written program for Personal protective equipment (PPE) that includes:</li> <li>Employer duty to provide appropriate personal protective equipment.</li> <li>Supervisor accountability to ensure compliance with the PPE program.</li> <li>Worker responsibility to wear the appropriate PPE.</li> <li>This program should include guidelines for the selection, use and maintenance of appropriate PPE.</li> <li>For example, reusable gloves should be washed and dried after use. If punctured or torn they should be discarded.</li> </ul> | <ul> <li>* OHSA, sec. 26, 27 and 28</li> <li>* HCRF Reg., sec. 10</li> <li>BP-ECPCI</li> <li>BP-RPAP</li> </ul> |  |
|------|---|--|---|--|
| 11.5 | The room used for storing laundry is maintained in accordance with good hygiene practices   | Clean and soiled linen should be stored separately.  | • * HCRF Reg., sec. 111(1)  |  |

| 11.6 | Eyewash stations are provided in the laundry department if there is a risk of exposure of eyes to chemical or infectious material. | The eyewash station should be installed and operated in accordance with ANSI standards.  The eyewash station should be:  | <ul> <li>* OHS Act, sec. 25(2) (h)</li> <li>* IER, sec. 124</li> <li>* HCRF Reg., sec. 9</li> <li>ANSI - Z358.1</li> </ul> |  |
|------|--|--|--|--|
| 11.7 | The receiving area for contaminated textiles is maintained at negative pressure compared to the clean areas of the laundry.        | A protocol is in place to ensure regular monitoring of the air pressure by qualified individuals such as occupational hygienists, consulting engineers and other specialists. A JHSC worker member should be consulted about and have a right to be present at the start of testing. | • BP-ECPCI   |  |

| 11.8 | Hand Hygiene facilities are readily available.   | <ul> <li>Hygiene facilities should be equipped with:</li> <li>hot and cold running water</li> <li>liquid soap</li> <li>single-use disposable paper towels</li> <li>alcohol hand sanitizer</li> <li>Hand-washing facilities should be made available in accordance with the Building Code.</li> </ul> | <ul><li>* HCRF Reg., sec. 28</li><li>BP-HH</li></ul> |  |
|------|--|--|--|--|
| 11.9 | Laundry chutes are properly maintained and used in a manner to minimize dispersion of aerosols (airborne particles) from contaminated laundry. | <ul> <li>Ensure the laundry discharges into the soiled linen collection area.</li> <li>Laundry chutes are regularly cleaned with an appropriate germicide.</li> <li>Maintain negative pressure in the chute.</li> <li>Ensure loose items are not transported in the chute.</li> </ul>                | • BP-ECPCI   |  |

### 12.0 Laboratory Services

Note: This section does not apply unless the facility has a laboratory.

All other sections of this document also apply to laboratory workers and should be included in the assessment of laboratory services.

It is recommended that a current copy of the Public Health Agency of Canada "Laboratory Biosafety Guidelines" be available for review as part of this assessment. This resource is currently being revised and should be available in 2013.

| Section | Element   | Suggestions for Development, Implementation and Evaluation   | Status (Y/N<br>/ Partial,<br>N/A) | Standard or Rationale  | Comments |
|---------|---|--|-----------------------------------|--|----------|
| 12.1    | The laboratory has infection-control policies and procedures specific to its environment that address the health and safety of workers. | <ul> <li>The laboratory should establish policies and procedures according to current guidelines based on risk assessment.</li> <li>Policies and procedures should include, but not be limited to: <ul> <li>Routine practices and additional precautions.</li> <li>Immunization of laboratory workers.</li> <li>Use and storage of personal protective equipment, including lab coats.</li> <li>Training and education.</li> <li>Waste and spills.</li> <li>Blood and body fluid exposures.</li> </ul> </li> </ul> |                                   | <ul> <li>* OHSA, sec. 25(2) (h)</li> <li>* HCRF Reg., sec. 8 and 9</li> <li>PHAC-LBSG (Laboratory<br/>Biosafety Guidelines 3rd<br/>Edition, Public Health<br/>Agency of Canada)</li> </ul> |          |

| 12.2 | Laboratory glassware is inspected for chips and cracks before use.  | Chipped or cracked glassware is not used unless it is restored to a condition that presents no hazard to a worker. If not restored it is disposed of appropriately.  | • HCRF Reg., sec. 56(1) and (2)   |  |
|------|---|--|---|--|
| 12.3 | Bottles and test tubes are transported in racks or containers to prevent them from breaking, leaking or spilling their contents and to protect workers from exposure. | A written procedure is in place for the enforcement of safe transport of specimens in, to and from the laboratory.   | • * HCRF Reg., sec. 107   |  |
| 12.4 | Centrifuges are maintained and operated in accordance with the recommendations and instructions of the manufacturer.  | There is a written record of their maintenance.  Centrifuges are equipped with a locking device to prevent them being operated at a speed in excess of that for which they were designed and intended.  The load in a centrifuge is balanced to minimize vibration during its operation.  Cushions are used in centrifuging materials in glass containers. | <ul> <li>* HCRF Reg., sec. 59(1), (2), (3) and (6)</li> <li>*IER sec. 31</li> </ul> |  |

| 12.5 | If an infectious material is being centrifuged, a legible sign warning of the hazard is posted in the area where the centrifuge is being operated.   | A sign displaying a biohazard symbol should be used.  | • * HCRF Reg., sec. 59(4) |  |
|------|--|---|---------------------------|--|
| 12.6 | A bench model centrifuge being used to centrifuge an infectious material is operated in a biological safety cabinet or is otherwise appropriately contained, unless sealed safety heads or sealed centrifugal caps are used. | Laboratories determine which bench model centrifuges being used for infectious agents require operation in a biological safety cabinet.  Include verification of the integrity of the seal in pre-start-up inspections. | • * HCRF Reg., sec. 59(5) |  |
| 12.7 | Incubators, refrigerators and deep-freeze units used to store cultures, specimens or biological ampoules are identified as biohazards.   | Alarms and monitors can be installed to detect problems related to power supply or temperature.  Alarms should be monitored and staff trained in appropriate response measures.   | * HCRF Reg., sec. 105     |  |

| 12.8  | Refrigerators used to<br>store cultures,<br>specimens or biological<br>ampoules are not used<br>to store food and drink.  | The temperature is maintained at 2 - 8 degrees Celsius in refrigerators storing vaccines.   | • * HCRF Reg., sec. 31                                       |  |
|-------|---|---|--|--|
| 12.9  | No food, drink, tobacco or cosmetics are consumed, applied or kept in areas where infectious materials, hazardous chemicals or hazardous drugs are used, handled or stored. | Signage should be posted regarding restrictions.  | • * HCRF Reg., sec. 32                                       |  |
| 12.10 | Workbenches, shelves, fume hoods and safety cabinets have adequate space to allow workers to perform their tasks safely.  | Space requirements should be considered during design of lab and purchase of equipment.  Consult the Health Canada Laboratory Biosafety Guidelines for specifications on design.  Laboratory workers and/or external experts may be consulted as appropriate. | <ul> <li>* HCRF Reg., sec. 108</li> <li>PHAC-LBSG</li> </ul> |  |

| 12.11 | To ensure the safety of workers, biological safety cabinets are installed and tested in accordance with CSA Standard Z316.3-95 or NSF Standard 49. | A written record of the testing should be available.  A qualified person should conduct the testing.  | • PHAC-LBSG                         |  |
|-------|--|---|-------------------------------------|--|
| 12.12 | In a laboratory where blood/body fluid spills are likely to occur, the floors and other surfaces are made from smooth, impervious material.        | Workbench, fume hood and safety cabinet surfaces and floors consist of a smooth non-porous or impervious material.  Appropriate disinfectants and decontaminants are provided and used to clean workbench, fume hood and safety cabinet surfaces and floors.  | • * HCRF Reg., sec. 109 (1) and (2) |  |
| 12.13 | If the laboratory has an autoclave or sterilization machine, written procedures for correct usage are in place.                                    | <ul> <li>The written procedures should address:</li> <li>Ventilation of the equipment if a hazardous chemical is used (e.g., ethylene oxide).</li> <li>Safe operation of the equipment.</li> <li>Posting of emergency instructions.</li> <li>Maintenance requirements.</li> </ul> The autoclaves and sterilization machines should be maintained on | • * HCRF Reg., sec. 60              |  |

|       |  | a regular basis and inspected at least once every three months, and more frequently if recommended by the manufacturer. A record of maintenance and test results must be kept.  |   |  |
|-------|--|---|---|--|
| 12.14 | Adequate hygiene facilities are available for laboratory workers.  | Consult the Health Canada<br>Laboratory Biosafety Guidelines for<br>design specifics.   | <ul><li>* HCRF Reg., sec. 28</li><li>PHAC-LBSG</li></ul>  |  |
| 12.15 | A quick-acting deluge<br>shower is provided for<br>a worker exposed to<br>potential skin injury<br>due to contact with an<br>infectious substance. | Workers have been trained to use the emergency eyewash station and/or safety shower.  Emergency showers must be properly maintained.  | <ul><li>* IER, sec. 125</li><li>• ANSI</li></ul>  |  |
| 12.16 | Where there is a risk of potential exposure to an infectious agent, an eyewash station is provided.  | <ul> <li>The eyewash station should be installed and operated in accordance with ANSI standards.</li> <li>The eyewash station should be: <ul> <li>Available within 10 seconds of travel.</li> </ul> </li> <li>Within the work area.</li> <li>Capable of delivering 15 minutes flushing of eyes with tempered water.</li> <li>Capable of operating handsfree after it has been turned on.</li> </ul> | <ul> <li>* HCRF Reg., sec. 9</li> <li>* OHS Act, sec. 25(2) (h)</li> <li>* IER, sec. 124</li> <li>ANSI</li> </ul> |  |

|       |  | The pathway to the eyewash and emergency showers should be unobstructed at all times and workers should be trained in the use of eyewash and shower devices.   |             |  |
|-------|--|--|-------------|--|
| 12.17 | A training program has been established to meet the requirements of the Transportation of Dangerous Goods Act. | Workers, who provide transport, pack for transport or transport specimens are trained in the relevant sections of the TDG Act.  Employers have a process to ensure that training in transportation of dangerous goods is provided.  Re-training should be conducted every three years (two years if dangerous goods are transported by air), or more frequently if required.  A written record of the training attendance should be kept.  A worker must keep a certificate of training available for review on request. | • * TDG Act |  |

| 12.18 | All applicable recommendations and regulations with respect to animal research and/or animal pathogens that could adversely affect the health and safety of workers are followed. | Policies and procedures should be established based on a risk of transmission of infection to humans.  Policies and procedures must be communicated to workers. | • PHAC-LBSG |  |
|-------|---|---|-------------|--|
|       |   |   |             |  |

#### Appendix A - Glossary of Short Forms and Notations Used for Consensus Documents Cited

APIC - Association for Professionals in Infection Control & Epidemiology

ANSI - American National Standards Institute

BP-CDS - Best Practices for Cleaning, Disinfection & Sterilization of Medical Equipment in All Health Care Settings

BP -ECPCI - Best Practices for Environmental Cleaning for the Prevention & Control of Infections

BP-ECBPPET - Environmental Cleaning Best Practices Educational Toolkit

BP-HH -Best Practices for Hand Hygiene in All Health Care Settings, PIDAC

BP-IPCP - Best Practices for Infection Prevention & Control Programs in Ontario

BP-RPAP - Best Practices, Routine Practices & Additional Precautions

BP-SHCAI - Best Practices for Surveillance of Health Care Acquired Infections

CDC-PTT - Guidelines for Preventing Transmission of mycobacterium Tuberculosis in Health Care Settings, Center for Disease Control

CEBCA Reg- Control of Exposure to Biological or Chemical Agents Regulation

CSA Z317.10 - (handling medical waste in health care facilities)

CSA Z316-07 - (sharps containers)

CSA Z94.4-11- (selection, care & use of respirators))

CSA Z386-08 - (laser safety)

CSA Z316.5-04 (fume hoods, local exhaust)

CSA Z8000-11(planning for clinical support)

HCRF Reg - Health Care & Residential Facilities Regulation

\*HPP Act- Health Promotion & Protection Act

IER Reg - Industrial Establishments Regulation

JCYH - Just Clean Your Hands Campaign

\*LTC Act - Long Term Care Act

LTC-DM - Long Term Care Design Manual

LTC-PM - Long Term Care Homes Program Manual

MBWO - Management of Biomedical Waste in Ontario

NACI - National Advisory Committee for Immunization

NS Reg. -Needle Safety Regulation ANSI - American National Standards Institute

OHA/OMA CDSP- Ontario Hospital Association and Ontario Medical Association Communicable Disease Surveillance Protocols

OHPIP - Ontario Health Plan for an Influenza Pandemic

PHAC-PCOI - Prevention & Control of Occupational Infections in HealthCare, Public Health Agency of Canada

PHAC - CPIP - Canadian Pandemic Influenza Plan, Public Health Agency of Canada

PHAC-CTS - Canadian Tuberculosis Standards, Public Health Agency of Canada

PHAC -GHAP- Guidelines for The Prevention of Health Care Acquired Pneumonia, Public Health Agency of Canada

PHAC-LBSG - Laboratory Biosafety Guidelines 3rd Edition, Public Health Agency of Canada

Reg. 965 - Hospital Management under Public Hospitals Act

SC-CR - SARS Commission, Campbell Report

\*TDG - Transportation of Dangerous Goods Act

TIHC - Tuberculosis Information for Health Care Providers, 4th edition, Ontario Lung Association

WHMIS Reg. - Workplace Hazardous Materials Information System Regulation

\*WSIA - Workplace Safety & Insurance Act

VIRHC - Ventilation, Inspection Report for Health Care Facilities, Ontario Ministry of Labour

#### **Appendix B - Web Links for Resources Cited**

- American National Standards Institute (ANSI )www.global.his.com/standards
- Best Practice documents (PIDAC) www.oahpp.ca/resources/pidac-knowledge/
- Centre for Disease Control (CDC) Guidelines for Preventing the Transmission of mycobacterium Tuberculosis in Health Care www.cdc.gov/tbpublications
- 4. Canadian Standards Association (CSA) standards www.shop.csa.ca
- 5. Just Clean Your Hands Campaign www.oahpp.ca/services/jcyh
- 6. Long Term Care Design Manual www.health.gov.on.ca
- 7. Long Term Care Program Manual www.health.on.ca
- 8. Ontario Statutes and Regulations (legislated requirements indicated by \*) www.e-laws.gov.on.ca
- 9. National Advisory Committee for Immunization (NACI) www.phac-phac.gc.ca
- 10. Ontario Health Plan for an Influenza Pandemic chapter 7 www.health.gov.on.ca

- 11. Ontario Hospital Association and Ontario Medical Association Communicable Disease Surveillance Protocols www.oha.com
- 12. Ontario Lung Association, Tuberculosis Information for Health Care Providers, 4th edition www.on.lung.ca
- 13. Public Health Agency of Canada www.phac-phac.gc.ca
- 14. Spring of Fear, SARS Commission www.osach.ca
- 15. Ventilation, Inspection Report for Health Care, Ontario Ministry of Labour www.labour.gov.on.ca

#### **Appendix C – Additional Resources and Web Resources**

- 1. Association for Professionals in Infection Control and Epidemiology Inc. (APIC), 1275 King St. NW, Ste. 1000, Washington, DC, 20005-40006, www.apic.org
- 2. Canadian Standards Association, 5060 Spectrum Way, Mississauga, ON, L4W 5N6, www.csa.ca
- 3. Centers for Disease Control and Prevention, 1600 Clifton Rd., Atlanta, GA, 30333, USA, www.cdc.gov
- 4. Community and Hospital Infection Control Association (CHICA), Box 46125, RPO Westdale, Winnipeg, MB, R3R 3S3, www.chica.org
- 5. Public Health Agency of Canada, 130 Colonnade Road, A.L. 6501H, Ottawa, ON, K1A0K9 www.publichealth.gc.ca
- 6. Public Health Ontario, 480 University Ave. suite 300, Toronto, ON, M5G1V2, oahpp.ca
- 6. Public Services Health and Safety Association, 4950 Yonge St., Toronto, ON, M2N 6K1, www.pshsa.ca
- 7. Ontario Ministry of Labour, Occupational Health & Safety Branch, 505 University Ave., Toronto, ON, M7A 1T7, www.Labour.gov.on.ca
- 8. Ontario Ministry of Health and Long Term Care, Suite M1-57, MacDonald Block, 900 Bay St., Toronto, ON, M7A 1N3, e-mail:www.gov.on.ca/health
- 9. World Health Organization, Geneva, Switzerland, e-mail: www.who.int/en

#### **Appendix D – Communicable Diseases Significant to Occupational Health**

Antibiotic resistant organisms (AROs)

Avian influenza

Blood-borne diseases (Hepatitis B virus [HBV], Hepatitis C virus [HCV]

Cytomegalovirus (CMV)

Diphtheria

Enteric diseases (as specified in OHA, OMA surveillance protocols)

Epstein-Barr virus (EBV)

Febrile respiratory illness

Gastroenteric infections

Hepatitis A virus (HAV) and Hepatitis E virus (HEV)

Herpes simplex virus (HSV)

Influenza

Measles (rubeola)

Meningococcus (Neisseria meningitidis)

MRSA (Methicillin sensitive S. aureus and Methicillin resistant S. aureus)

Mumps

Parovirus B19

Pediculosis (lice)

Pertussis (whooping cough)

**Respiratory infections** 

Rubella (German measles)

Salmonella typhi

Severe acute respiratory illness (SARS)

Scabies

Staphylococcus aureus (S. aureus)

Streptococcus Group A (GAS)

Tinea (ringworm)

Toxoplasmosis

Tuberculosis (TB)

Vancomycin resistant S. aureus

Vancomycin resistant enterococcus (VRE)

Varicella-Zoster virus (VZV)



## Protecting Health Care Workers from Infectious Diseases

**A Self Assessment Tool** 

#### Public Services Health and Safety Association (PSHSA)

4950 Yonge Street, Suite 1800 Toronto, Ontario M2N 6K1

Canada

Telephone: 416-250-2131 Fax: 416-250-7484

Toll Free: 1-877-250-7444 Web site: www.pshsa.ca

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