

Qmentum Infection Prevention and Control Standards Updated March 22th 2013

INTRODUCTION

Accreditation Canada's Infection Prevention and Control (IPC) standards provide a framework to plan, develop, implement and evaluate an effective IPC program based on evidence and best practices in the field. The literature shows that well-designed IPC programs have proven to be cost-effective by contributing to fewer health care-associated infections, reduced length of hospital stay, and decreased costs of treatment for health care-associated infections.

Accreditation Canada's standards outline the key routine practices and additional precautions for an effective IPC program, including:

- Point-of-care risk assessment
- Hand hygiene
- Client placement, accommodation and flow
- Aseptic techniques
- Personal protective equipment
- Cleaning and disinfection of the physical environment
- Handling waste and linen

Promoting a collaborative approach for protecting the safety of clients and staff, the IPC standards contain the following sections:

1. Planning and Developing the IPC Program
2. Implementing the IPC Program
3. Evaluating the Impact of the IPC Program

Accreditation Canada also offers the Reprocessing and Sterilization standards as a complement to the IPC standards. These standards provide a highly-specific, in-depth evaluation of reprocessing and sterilization services.

GLOSSARY

Additional precautions: The Public Health Agency of Canada (PHAC) defines additional precautions as “extra measures, when routine practices alone may not interrupt transmission of an infectious agent. They are used in addition to routine practices (not in place of), and are initiated both on condition/clinical presentation (syndrome) and on specific etiology (diagnosis).” Examples of additional precautions include contact precautions for situations where heavy contamination of the client’s environment is anticipated; droplet precautions for microorganisms primarily transmitted by the large droplet route; and airborne precautions for microorganisms transmitted through the air over extended time and distance by small particles.

Airborne infection isolation room: An isolated room that is occupied by one client with a suspected or confirmed to have an airborne infection. Environmental conditions within the room are controlled to prevent the transmission of microorganisms. Also referred to as a negative pressure or negative pressure isolation room.

Alcohol-based hand rub: As defined by PHAC, “an alcohol-containing preparation (liquid, gel or foam) designed for application to the hands to remove or kill microorganisms. Such preparations contain one or more types of alcohol (i.e., ethanol, isopropanol or n-propanol), and may contain emollients and other active ingredients.”

Aseptic technique: As defined by PHAC, “the purposeful prevention of transfer of microorganisms from the patient’s body surface to a normally sterile body site or from one person to another by keeping the microbe count to an irreducible minimum. Also referred to as sterile technique.”

Client: The person receiving care from the organization. Also referred to as patient.

Environmental conditions: Refers to temperature, humidity and air circulation within the physical environment.

Health care-associated infections: As defined by PHAC, “infections that are transmitted within a health care setting (also referred to as nosocomial) during the provision of health care.” Examples include *C. difficile*, surgical site infections, seasonal flu, noroviruses, or urinary tract infections.

Interdisciplinary committee: A group of individuals with varying areas of expertise working towards common goals for IPC. Committee membership may include representatives from physicians, nurses, surgical care, microbiology, medical device reprocessing, environmental services, occupational health and safety, risk management, quality improvement and public health.

GLOSSARY

Outbreak: As currently defined by the WHO, “the occurrence of cases of disease in excess of what would normally be expected in a defined community, geographical area or season.”

Point-of-Care: PHAC defines point-of-care as the place where the following three elements occur together: the client, the service provider and care/treatment involving contact with clients or their surroundings.

Pandemic: An outbreak that has spread worldwide affecting a significant proportion of the population.

Partner: An organization or person who works with another organization to address a specific issue by sharing information and/or resources.

Personal protective equipment: PHAC defines Personal Protective Equipment (PPE) as “gowns, gloves, masks, facial protection (i.e., masks and eye protection, face shields or masks with visor attachment) or respirators.” PPE is used to provide a barrier that will prevent potential exposure to microorganisms.

Physical environment: Refers to the various spaces within an organization that require cleaning such as client care areas (objects and surfaces in the proximate environment of the client), service areas (e.g. operating rooms, medical device reprocessing areas), staff areas and public areas (e.g. washrooms and waiting rooms).

Resources: Human, financial and/or informational resources needed to support a project or initiative. Examples of resources for infection prevention and control may include an IPC coordinator, interdisciplinary committee, epidemiologist, microbiology laboratory and any other resource to ensure an effective IPC program based on the organization’s priorities for IPC.

Respiratory etiquette: Practices to help prevent the transmission of microorganisms when sneezing or coughing. Examples include covering mouth with a tissue, coughing or sneezing into upper sleeve or elbow, and using alcohol-based hand rubs.

Routine practices: PHAC refers to routine practices as a comprehensive set of IPC measures that must be used in the routine care of all clients to reduce the risk of transmission of microorganisms. Examples of routine practices include point-of-care risk assessment; hand hygiene (including point-of-care alcohol-based hand rubs); client placement, accommodation and flow; aseptic techniques; provision and use of personal protective equipment; cleaning and disinfection of the physical environment; and handling waste and linen.

Service providers: Anyone providing care to clients within the organization.

Staff: People who are employed by the organization.

Timely/Regularly: The organization defines what "timely" and "regularly" mean and adheres to that schedule.

Infection Prevention and Control Standards

PLANNING AND DEVELOPING THE IPC PROGRAM

1.0 The organization plans and develops the Infection Prevention and Control (IPC) program based on organizational priorities, evidence and best practices.

1.1 The organization regularly reviews the IPC components to include in the IPC program based on organizational priorities.

Guidelines:

The framework for an effective IPC program is identified in Accreditation Canada's IPC standards and includes policies and procedures for routine practices and additional precautions, education program, surveillance plan and ongoing evaluation activities.

1.2 The organization reviews evidence and best practices on IPC when planning and developing the IPC program.

Guidelines:

Evidence and best practices can be accessed through publications, presentations, and conferences.

1.3 The organization regularly reviews the resources needed to support the IPC program.

Guidelines:

The resources needed to support the IPC program will depend on the size of the organization and the type of services provided. In some jurisdictions, IPC resources are specified in applicable regulations. Accreditation Canada's IPC standards outline the key resources needed to support the IPC program such as having a qualified IPC coordinator, an interdisciplinary committee to promote the IPC program and access to a microbiology laboratory that can assist with surveillance information.

2.0 The organization has a collaborative approach for planning and developing the IPC program.

2.1 The organization has an IPC team responsible for planning, developing, implementing and evaluating the IPC program.

Guidelines:

IPC programs are coordinated by staff and service providers with expertise in infection prevention and control and epidemiology. Examples of IPC team members include physicians (e.g. medical microbiologist), nurses, epidemiologists, occupational health and safety experts, and administrative staff.

2.2 The organization has one or more qualified IPC coordinators as part of the IPC team.

Guidelines:

IPC coordinators are also referred to as Infection and Control Professionals or Practitioners (ICP). The number of IPC coordinators required may be based on the number of in-patient beds, level and type of services provided. For examples, refer to the Provincial Infectious Diseases Advisory Committee (PIDAC) Best Practice Manual: Infection Prevention and Control Programs in Ontario, and the Public Health Agency of Canada (PHAC) Essential Resources for Effective Infection Prevention and Control Programs. In some jurisdictions, the number of IPC coordinators required is mandated by applicable regulations.

The education and certification requirements for IPC coordinators will vary per jurisdiction. IPC coordinators have expertise and experience in program administration, surveillance, epidemiology and critical appraisal of the literature. For example, Community and Hospital Infection Control Association – Canada (CHICA-Canada) and L'Association des infirmières en prévention des infections (API) maintain a list of education courses for IPC on their website. The Certification Board of Infection Control and Epidemiology (CBIC) also offers certification exams in infection prevention and control that are recognized in the US and Canada.

2.3 The organization has an interdisciplinary committee to provide guidance on the IPC program.

Guidelines:

IPC is a collaborative process that involves representatives from across the organization. Committee membership may include representatives from physicians, nursing, surgical care, microbiology, medical device reprocessing, environmental services, occupational health and safety, risk management, quality improvement and public health.

The committee may be specifically assigned to IPC or have IPC as one of its functions. This committee may function at an organizational level, regional or district health authority level, or provincial level. The roles and responsibilities of this committee may include developing IPC policies and procedures, education programs and evaluation activities. The structure of the committee may vary across organizations. Various committees or subcommittees may be established as needed to meet its functions.

2.4 The interdisciplinary committee regularly evaluates if it is meeting its goals and objectives for IPC and makes improvements as needed.

Guidelines:

This evaluation may look at the structure of the committee, committee membership, terms of reference and work plan, roles and responsibilities assigned to the committee, meeting attendance, and frequency of meetings.

2.5 The organization works with representatives from IPC when planning and designing the physical environment including planning for construction and renovation.

Guidelines:

Representatives from IPC are involved to identify IPC-related risks during construction and renovations (e.g. Aspergillus and Legionella) and plans for cleaning and disinfecting during and following this work. For examples, refer to current CSA Standards Z8000 (Canadian Health Care

Facilities) and Z317.13 (Infection Control during Construction, Renovation, and Maintenance of Health Care Facilities), and PHAC Construction-related nosocomial infections in patients in health care facilities: Decreasing the risk of aspergillus legionella and other infections.

2.6 The organization seeks input from IPC representatives when establishing the environmental conditions to maintain within the organization.

Guidelines:

Poor air quality can promote the transmission of microorganisms within the organization. For example, excessive humidity levels can increase the survival rate of microorganisms on surfaces. For examples of optimal environmental conditions, refer to current CSA Standards Z8000 (Canadian Health Care Facilities) and CSA Z317.2 (Special Requirements for Heating Ventilation and Air Conditioning for Health Care Facilities).

2.7 The organization involves representatives from environmental services and IPC when establishing routine practices for laundry services.

Guidelines:

Linen should be handled carefully to avoid the transmission of microorganisms within the organization. For example, clean linen should be transported and stored in a manner to prevent contamination by dust. For examples of routine practices related to laundry services, refer to PHAC's Routine Practices and Additional Precautions for Preventing the Transmission of Infection in Healthcare Settings.

2.8 The organization involves representatives from IPC when establishing routine practices for handling medical devices/equipment.

Guidelines:

Medical devices/equipment is one of the key sources of health care-associated infections. Handling medical devices/equipment includes safely transporting contaminated medical devices/equipment to a central area for reprocessing and storing clean medical devices/equipment.

A recognized classification system such as Spaulding is used to identify critical, semi-critical, and non-critical medical devices/equipment based on the use of the medical device/equipment and risk of infection. For standards on cleaning and disinfecting reusable medical devices/equipment, refer to Qmentum Reprocessing and Sterilization standards.

2.9 The organization works with representatives from IPC to ensure that applicable public health standards are met for food safety to prevent food-borne illnesses.

Guidelines:

Proper storage, preparation and handling of food are critical to preventing food-borne illness. Food storage, preparation and handling are monitored even if food is made using pre-prepared mixes or ingredients, or if preparation is done outside of the main kitchen or off-site. Where food services are contracted to external providers, the organization has a mechanism to define the role of the external contractor and verify the quality of services provided.

2.10 The organization seeks input from IPC representatives when planning for pandemics.

Guidelines:

Pandemic planning is part of the organization's overall plan for disasters and emergencies which is covered in the Leadership standards.

3.0 The organization collaborates with partners to promote infection prevention and control.

3.1 The organization creates partnerships with organizations across the continuum of care, including public health, to communicate IPC information and coordinate strategies.

Guidelines:

Partners include peer organizations; organizations to which clients are referred and from which clients are received; community organizations; professional associations, e.g. CHICA Canada; AIPI; Occupational Health and Safety bodies; local, provincial or territorial, and federal governments; and public health agencies. The extent of the organization's partnerships will depend on its size, mandate, and scope of services.

3.2 The organization works with its partners to implement IPC activities, including hand hygiene, education, and awareness campaigns.

Guidelines:

Working with partners may include joint initiatives, complementary roles and responsibilities in the community, and creating consistent education and communication messages.

3.3 The organization regularly evaluates its partnerships and makes improvements based on identified gaps, community needs, and emerging trends.

Guidelines:

The evaluation includes the extent to which the organization, with its partners, is able to achieve its goals and objectives for IPC.

3.4 The organization shares trends in health care-associated infections and significant findings with other organizations, public health agencies, and the community.

Guidelines:

Depending on the results of tracking health care-associated infection rates, the organization determines what information is shared and in what format. For example, certain health care-associated infections must be reported to national and provincial public health agencies. For example, the Canadian Nosocomial Infection Surveillance Program maintains a national surveillance network through which organizations can obtain surveillance data and participate in benchmarking.

IMPLEMENTING THE IPC PROGRAM

4.0 The organization maintains policies and procedures on infection prevention and control based on applicable regulations, evidence and best practices, and organizational priorities.

4.1 The organization has policies and procedures based on its priorities for IPC.

Guidelines:

Policies and procedures should be clear and concise. Accreditation Canada's IPC standards cover key IPC policies and procedures on routine practices and additional precautions such as hand hygiene practices; occupational health and safety such as work restrictions, aseptic techniques when performing invasive procedures and handling injectable products; wearing personal protective equipment appropriate to the task; and handling contaminated items. Organizations are encouraged to seek input from clients and families when developing policies and procedures, specifically around hand hygiene.

4.2 The organization completes a risk assessment to identify and address high-risk activities in IPC policies and procedures.

Guidelines:

Examples of high-risk activities include performing aerosol generating medical procedures; handling spills, specimens, and sharps; and exposure to contaminated waste.

4.3 The organization has policies and procedures for using aseptic techniques while preparing, handling and administering sterile substances both within the preparation area and at point-of-care.

Guidelines:

Examples include vaccines, parenterally administered medications, total parenteral nutrition (TPN), and diagnostic media. Contamination of equipment; vaccine, medication or nutrition; or client, staff, or service provider can occur at several points during preparation and delivery of injected substances.

4.4 The organization provides staff, service providers and volunteers with access to IPC policies and procedures.

Guidelines:

IPC policies and procedures are available in a written or electronic format where staff, service providers and volunteers have easy access.

4.5 The organization monitors compliance with IPC policies and procedures and makes improvements to the policies and procedures and/or education program based on the results.

Guidelines:

This includes a process for staff, service providers, volunteers, and clients and families to report non-compliance with IPC policies and procedures.

Audit tools can be used to monitor compliance with IPC policies and procedures. For example, the Canadian Patient Safety Institute (CPSI) has developed a hand hygiene toolkit (Canada's Hand Hygiene Challenge: STOP! Clean Your Hands) that provides instructions on how to monitor compliance with hand hygiene practices.

4.6 The organization has a process to regularly update IPC policies and procedures based on changes to applicable regulations, evidence and best practices.

5.0 The organization engages staff, service providers and volunteers to promote an infection prevention and control culture within the organization.

5.1 The organization has a comprehensive IPC education program tailored to its IPC priorities, services and client populations.

Guidelines:

Depending on roles and responsibilities for IPC, the IPC education program may cover topics such as IPC policies and procedures, contact information for those responsible for IPC in the organization, and common health care-associated infections affecting the organization and trends. The program also provides access to educational resources such as peer review journals, technology (e.g. computers and internet), and linkages with professional associations on IPC (e.g. CHICA Canada and AIPI). For example, WHO and CPSI provide tools for implementing an education program on hand-hygiene, and Clean Learning provides educational tools for environmental services.

5.2 The organization provides education on how to safely perform high-risk activities using appropriate Personal Protective Equipment (PPE) as outlined in its policies and procedures.

Guidelines:

High-risk activities require using PPE appropriate to the task. Staff and service providers learn how to select PPE based on the type of exposure anticipated, durability, appropriateness, and fit. Staff and service providers also know how to select, wear, change, and remove the PPE.

5.3 The organization requires staff, service providers, and volunteers to attend the IPC education program at orientation and on a regular basis based on their roles and responsibilities for IPC.

Guidelines:

The organization may maintain an electronic learning management system to track attendance at education sessions, identify necessary follow-up training, and identify individuals overdue for education.

5.4 The organization regularly evaluates the effectiveness of the IPC education program and makes improvements as needed.

Guidelines:

The organization can evaluate the education program by asking staff and service providers for the input and using performance measures for routine practices and additional precautions. For example, the organization can monitor the uptake of CPSI's hand hygiene human factors toolkit and develops a strategy to improve compliance with hand hygiene based on the results.

6.0 The organization engages clients and families in infection prevention and control practices.

6.1 The organization provides clients and families with information about routine practices and additional precautions as appropriate in a format that is easy to understand.

Guidelines:

Clients and families play an important role in promoting hand hygiene. Information may include appropriate use of Personal Protective Equipment (PPE), and the importance and timing of their hand hygiene and respiratory etiquette.

Information is provided verbally and in writing. Written materials may be available in a variety of languages depending on the populations served. The language used is easy to understand, and may include visual cues to improve understanding. Written materials may include pamphlets, posters or electronic formats such as in-room televisions.

6.2 The organization provides client, families and visitors with access to hand hygiene resources and Personal Protective Equipment (PPE) based on risk of transmission of microorganisms.

Guidelines:

Hand hygiene resources include dedicated hand-washing facilities and alcohol-based hand rubs at the point-of-care. For examples, refer to PHAC, Hand Hygiene Practices in Healthcare Settings.

6.3 The organization completes a risk assessment to determine if clients require additional precautions based on risk of infection.

Guidelines:

Service providers are trained to determine if additional precautions are required to prevent the transmission of microorganisms within the organization. The service provider may need to involve the IPC coordinator as appropriate to complete the risk assessment who then documents this information in the client record. Examples may include using appropriate PPE, placing the client in an airborne infection isolation room, and asking the client to use a separate bathroom.

7.0 The organization's Occupational Health and Safety (OHS) program addresses organizational priorities for IPC.

7.1 The organization has Occupational Health and Safety (OHS) policies and procedures to prevent the transmission of microorganisms between staff and service providers, and clients.

Guidelines:

These policies and procedures are part of the organization's OHS program based on the level of risk for health care-associated infections. Accreditation Canada's IPC standards outline the key safety precautions for staff and service providers such having a pre-placement policy (including immunization status and tuberculosis screening); providing access to Personal Protective Equipment (PPE) appropriate to the task; promoting sharps safety and prevention of exposure to bloodborne pathogens; and setting work restrictions if needed. For examples, refer to Health Canada's guidelines on Prevention and Control of Occupational Infections in Health Care.

7.2 The organization has an immunization policy to screen and offer vaccinations to clients, staff and service providers.

Guidelines:

Vaccination is a cost-effective method of preventing illness. Possible vaccinations include mumps, measles, rubella, tetanus, diphtheria, influenza, hepatitis B and screening for tuberculosis. In some jurisdictions, specific vaccinations or evidence of immunity are required for staff and service providers working in an acute care setting. For examples, refer to Recommendations from the National Advisory Committee on Immunization (NACI) and/or the immunization protocol issued by the Ministère de la Santé et des Services sociaux (MSSS).

7.3 The organization has policies and procedures for using personal protective equipment (PPE) that are appropriate to the task.

Guidelines:

Policies and procedures address when to use PPE, and how to wear and remove PPE. For examples of appropriate PPE, refer to PHAC's Routine Practices and Additional Precautions for Preventing the Transmission of Infection in Healthcare Settings or PIDAC's Routine Practices and Additional Precautions in All Health Care Settings.

7.4 The organization has work restrictions for staff, service providers, volunteers or students with transmissible infections in line with Occupational Health and Safety guidelines.

Guidelines:

For examples of Occupational Health and Safety guidelines, refer to the NACI or MSSS' immunization protocol. Work restrictions prevent staff, service providers, volunteers or students with transmissible infections from direct contact with clients, food, or sterile supplies, devices, and equipment. They may include limiting roles and responsibilities and wearing personal protective equipment as appropriate. Examples of transmissible infections include acute conjunctivitis, acute respiratory infection, gastroenteritis with vomiting and/or diarrhea, varicella, and open infected skin lesions or herpetic skin lesions on the hands.

7.5 The organization follows its policies and procedures, and legal requirements, when handling bio-hazardous materials.

Guidelines:

Appropriate handling of bio-hazardous materials minimizes the risk of exposure to microorganisms. Handling includes collection, storage, transportation, and disposal. The organization considers used equipment and devices to be contaminated and potentially infectious, and transports them appropriately to a dedicated decontamination or disposal area. Definitions and disposal of bio-hazardous materials will vary per jurisdiction.

7.6 The organization removes and disposes of sharps at the point of use in appropriate puncture and spill resistant sharps containers.

Guidelines:

Sharps include needles and blades.

7.7 The organization uses safety engineered devices for sharps and other high-risk materials.

Guidelines:

Safety engineered devices protect the user from exposure to bio-hazardous or chemical substances (e.g. blood borne pathogens, cytotoxic medications). They have a built in mechanism to protect the user from a sharps injury such as needles that retract after each use.

8.0 The organization has a comprehensive hand hygiene strategy.

ROP 8.1 The organization provides hand hygiene education to staff, service providers, and volunteers.

Guidelines:

Hand hygiene is a critical component of an effective infection prevention and control program in health care settings. However, adherence to proper hand hygiene protocols is often poor. Cost estimates of health care-associated infections significantly exceed those related to hand hygiene.

Training on hand hygiene is multimodal and addresses the importance of hand hygiene in preventing the transmission of microorganisms, factors that have been found to influence hand hygiene behaviour, and proper hand hygiene techniques. Training also includes recommendations on when to clean one's hands, such as before and after each direct contact with a client.

Test(s) for Compliance:

8.1.1 The organization provides staff, service providers, and volunteers with education on the hand hygiene protocol.

8.2 The organization has a process to select products for hand hygiene including alcohol-based hand rubs and hand soaps.

Guidelines:

The process includes seeking input from staff and service providers. For example, the WHO Guidelines on Hand Hygiene in Health Care provide more information on selecting alcohol-based hand rubs.

8.3 The organization's staff, service providers and volunteers have access to alcohol-based hand rubs at the point-of-care.

Guidelines:

The WHO guidelines on hand hygiene require that alcohol-based hand rubs be within one meter of where care is delivered. In acute care organizations, there is growing support for placing alcohol-based hand rubs at the bedside to provide reminders to staff and service providers. However, fire regulations or other considerations may limit the placement of alcohol-based hand rubs. For examples, refer to PHAC Hand Hygiene Practices in Healthcare Settings.

In community-based organizations and other organizations without beds, alcohol-based hand rubs are placed as close to the point-of-care as possible, e.g. in the clinic room, at the entrance to the client's room, or directly in the client's home. Service providers may also carry alcohol-based hand rubs with them.

The organization audits the availability of hand hygiene equipment and supplies available in the service environment.

8.4 The organization's staff, service providers and volunteers have access to dedicated hand-washing sinks.

Guidelines:

Using dedicated hand-washing sinks helps prevent the transmission of microorganisms. Dedicated hand-washing sinks are only used for hand-washing and should not be used for other purposes, such as disposal of fluids or cleaning of equipment. For examples, refer to current CSA Standards Z8000 (Canadian Health Care Facilities).

8.5 The organization has promotional materials on proper techniques for hand-washing and using alcohol-based hand rubs.

Guidelines:

Examples of promotional materials include posters or pamphlets on hand hygiene. Organizations determine an appropriate placement for the promotional materials based on a risk assessment. Examples include CPSI's 4 Moments for Hand Hygiene Poster available on its website.

ROP 8.6 The organization measures its compliance with accepted hand-hygiene practices.

Guidelines:

Hand hygiene is considered the single most important way to reduce nosocomial infections, but compliance with accepted hand hygiene practices is often poor.

Measuring compliance with hand hygiene practices allows organizations to improve education and training on hand hygiene, evaluate hand hygiene facilities, and benchmark compliance practices across the organization. Studies have shown that improvements in compliance with hand-hygiene practices has decreased the number of health-care associated infections.

The best method for measuring compliance with accepted hand hygiene practices is to use direct observation (audits). Direct observation involves watching and recording hand hygiene behaviours of staff and observing the work environment. Observation can be done by a trained observer within an organization, or by patients/families within an organization or in the community. Safer Healthcare Now! offers a variety of tools for measuring hand hygiene compliance in different settings (www.handhygiene.ca). Ideally, direct observation should measure compliance in all four 'moments for hand hygiene':

1. Before initial contact with the client
2. Before a clean/aseptic procedure
3. After body fluid exposure risk
4. After touching a client or their immediate surroundings

Direct observation should be used by all organizations working out of a fixed location (i.e., clients come to them). For organizations providing services in client homes, direct observation is still the best method of measuring hand hygiene compliance. Such organizations may wish to consider having clients (and their families) measure staff compliance with accepted hand hygiene practices – tools are available at www.handhygiene.ca. Organizations providing services in client homes who find direct observation not possible can consider alternative methods, such as:

- Staff record their own compliance with accepted hand hygiene practices (self-audit)
- Measuring product use
- Questions on client satisfaction surveys that ask about staff's hand hygiene compliance
- Measuring the quality of hand hygiene techniques (e.g., through the use of ultraviolet gels or lotions)

Since these alternatives are not as robust as direct observation, they should be used in combination (two or more) to give a more accurate picture of organizational compliance with accepted hand hygiene practices.

Test(s) for Compliance:

8.6.1 The organization measures its compliance with accepted hand hygiene practices using direct observation methods (i.e., audit). For organizations that provide services in client homes, a combination (two or more) of alternate methods may be used.

8.6.2 The organization shares the results of measuring hand hygiene compliance with staff, service providers, and volunteers.

8.6.3 The organization uses the results of measuring hand hygiene compliance to make improvements to its hand hygiene practices.

9.0 The organization maintains a clean and disinfected physical environment.

9.1 The organization categorizes the areas in the physical environment based on risk of infection to determine frequency of cleaning, level of disinfection, and number of environmental services staff required.

Guidelines:

The organization can divide the physical environment into several areas depending on risk of transmission of microorganism. The criteria used to identify these areas can include level of client traffic (e.g. waiting rooms and elevators), type of activity performed (e.g. clinical or administrative), type of clients (e.g. clients with an infectious disease or a compromised immune system), and the probability of being exposed to body fluid (e.g. operating room and laboratory).

For example, PIDAC's Best Practices for Environmental Cleaning for Prevention and Control of Infections provide a risk stratification matrix to determine frequency of cleaning.

9.2 The organization assigns roles and responsibilities for cleaning and disinfecting the physical environment.

Guidelines:

Roles and responsibilities address those most involved in cleaning and disinfecting the physical environment, such as environmental services staff. They also address the roles and responsibilities of other staff, service providers, and volunteers for checking the cleanliness of the physical environment and reporting problems to the appropriate individual or group.

9.3 The organization has policies and procedures for cleaning and disinfecting rooms of clients on additional precautions.

Guidelines:

Policies and procedures cover daily and terminal cleaning of these areas (i.e. after discharge/transfer of client) and the use of Personal Protective Equipment (PPE). For example, PIDAC's Best Practices for Environmental Cleaning for Prevention and Control of Infections includes a sample procedure for cleaning and disinfecting rooms of clients on contact precautions for *Clostridium difficile* infection (CDI).

9.4 The organization has policies and procedures for cleaning and disinfecting the physical environment that includes documenting cleaning activities.

Guidelines:

Cleaning activities cover all surfaces within the organization with the primary focus on high-touch areas in client care areas. Examples include cleaning walls, windows, and ceilings; removing waste; promptly cleaning and managing spills; and maintaining general tidiness. Documentation of cleaning activities includes the date and the choice of cleaners or disinfectants used.

9.5 The organization regularly evaluates compliance with its policies and procedures for cleaning and disinfection of the physical environment and makes improvements as needed.

9.6 Where cleaning services are contracted to external providers, the organization has a process to define the role and responsibilities of the contractor and verify the quality of services provided.

EVALUATING THE IMPACT OF THE IPC PROGRAM

10.0 The organization has a surveillance plan to monitor health care-associated infections.

10.1 The organization has a surveillance plan that is in line with applicable regulations, organizational priorities, evidence and best practices.

Guidelines:

Accreditation Canada's IPC standards identify the key components of a surveillance plan such as tracking and reporting health care-associated infections and quickly identifying the source of infections. Results are used to respond to pandemics and outbreaks, and to make improvements to the IPC program such as investing in additional resources, updating policies and procedures and reviewing education programs.

ROP 10.2 The organization tracks health care-associated infection rates; analyzes the information to identify outbreaks and trends; and shares this information throughout the organization.

Guidelines:

Tracking methods may focus on a particular health care-associated infection or service area, or may be organization- or system-wide. They may include data analysis techniques to help detect previously unrecognized outbreaks.

The organization identifies the health-care associated infections most common to its services and client populations such as *Clostridium Difficile* (*C. difficile*), surgical site infections, seasonal flu, noroviruses, or urinary tract infections as well as other reportable diseases and antibiotic resistant organisms. The organization tracks these as well as other reportable diseases and antibiotic resistant organisms. The information tracked may include frequencies and changes in frequencies over time, associated mortality rates, and attributed costs.

Staff who are well informed about health care-associated infection rates are usually better equipped to prevent and manage them. The organization identifies who is responsible for receiving information about health care-associated infection rates, e.g. the governing body, senior management, staff, and service providers, and establishes plans to disseminate information appropriately and in a regular and timely way, e.g. quarterly reports to all departments.

In addition to staff and service providers, the organization also keeps the governing body up-to-date about health care-associated infection rates and associated IPC issues. This may be done directly through senior management, and/or through a Medical Advisory Committee.

Test(s) for Compliance:

10.2.1 The organization tracks health care-associated infection rates.

10.2.2 The organization analyzes outbreaks and makes recommendations to prevent recurrences.

10.2.3 Staff and service providers are aware of the relevant health care-associated infection rates and recommendations from outbreak reviews.

10.2.4 The organization provides regular updates on health care-associated infection rates.

10.3 The organization has a process to promptly detect suspected health care-associated infections in the organization based on organizational priorities for IPC.

Guidelines:

Methods of detecting health care-associated infections may be passive, i.e. identified during the course of routine service delivery, or active, i.e. by trained professionals using planned monitoring of multiple data and sources.

The organization promotes voluntary reporting by staff, service providers, and volunteers, but also uses additional methods such as active identification, automated methods of detection, or centralized identification through the microbiology laboratory.

10.4 The organization has access to a microbiology laboratory that supports the organization in identifying health care-associated infections.

Guidelines:

Microbiology laboratories are playing a growing role in IPC surveillance by, for example, identifying new or rare infections, tracking antibiotic-resistant organisms (AROs) such as methicillin-resistant *Staphylococcus aureus* (MRSA) or vancomycin-resistant *Enterococcus* (VRE), and identifying outbreaks.

The microbiology laboratory supports the organization in identifying health care-associated infections by ensuring timely access to laboratory analyses, including quick turnaround for high-risk infections such as *C. difficile*.

10.5 The organization identifies who is responsible for receiving and responding to information on suspected health care-associated infections.

Guidelines:

Staff, service providers, and volunteers know to whom they must report IPC issues.

10.6 The organization quickly investigates the source or cause of the health care-associated infection.

Guidelines:

Methods of investigation may include epidemiologic analysis, root-cause analysis, or statistical analysis. The investigation process includes identifying high-risk or problem-prone agents or organisms requiring special attention or expertise, e.g. antibiotic resistant organisms, airborne agents, or highly contagious agents.

10.7 The organization has policies and procedures to contain and prevent the transmission of microorganisms, including ventilation requirements, additional precautions, and cohorting as necessary.

Guidelines:

Isolation can include a private room, isolation facilities, or an airborne infection isolation room. Other precautions include vaccination, early detection and testing, post-exposure protocols, and treatment.

Policies and procedures to contain and prevent the transmission of microorganisms are applicable to everyone who may be at risk, including clients, families, visitors, staff, service providers, and volunteers.

10.8 The organization consults with infection prevention and control or public health experts to control health care-associated infections, and reports the necessary information to the appropriate authorities in line with applicable regulations.

Guidelines:

Experts may include medical microbiologists, nurses, public health or other professionals. Certain health care-associated infections must be reported in terms of frequency and location to authorities such as public health agencies (e.g. PHAC). Reporting requirements vary per jurisdiction.

10.9 The organization uses standard definitions and accepted statistical techniques to share and compare information about health care-associated infections.

Guidelines:

Standard definitions are available for many infections. For example, the Canadian Nosocomial Infection Surveillance Program has published on its website definitions for health care-associated infections currently under surveillance.

Reporting units are clearly specified to promote comparisons. Techniques may include statistical methods as well as using epidemiological principles to identify at risk populations, identify infections, and analyze trends and risk factors.

10.10 The organization uses the results of investigations to improve its programs, policies or procedures, and to prevent health care-associated infections from recurring.

11.0 The organization has a coordinated approach for responding to outbreaks.

11.1 The organization has policies and procedures to identify and respond to outbreaks that are in line with applicable regulations.

Guidelines:

The organization's policies and procedures address how to detect an outbreak, how to identify the cause of the outbreak including those resulting from contaminated food, collecting data and specimens to look for additional cases, and how to contain an outbreak once it is identified.

11.2 The organization provides staff, service providers and volunteers with access to its policies and procedures for identifying and managing outbreaks.

11.3 The organization collaborates with its partners such as public health agencies to define outbreaks in terms of person, place, and time.

Guidelines:

Using the “person, place and time” approach helps characterize the outbreak and provides the organization with clues to control health care-associated infections.

Describing the person helps to understand the population at risk of acquiring the infection. The organization evaluates client demographics and characteristics such as age, underlying illness, possible exposures to microorganisms, and procedural or therapeutic risks such as surgery.

Describing the place in terms of service, unit, or location helps to understand if the outbreak is localized, or if it has organization- or community-wide implications.

Describing the time entails defining the exact period of the outbreak, from the first case or first indications, and drawing the epidemic curve. It is based on diagnosis and probable period of exposure. It helps the organization determine if the outbreak is from a single (common) source or a propagated source (continuing source or person-to-person transmission).

11.4 The organization's policies and procedures address how to manage new, rare, or problematic organisms, including antibiotic-resistant organisms.

Guidelines:

Processes for managing new, rare, or problematic organisms may include exchanging information with partners, other organizations, and the community.

11.5 The organization defines in their policies and procedures roles, responsibilities, and accountabilities for staff, service providers, and volunteers who are involved in identifying and managing outbreaks.

11.6 The organization communicates information about outbreaks to its partners, other organizations, and the community.

Guidelines:

The organization identifies who is responsible for communicating and reporting information about outbreaks.

Information is disseminated to partners, other organizations including public health agencies, and the community. Following an outbreak, a summary report including background, details of the investigation, results, and recommendations is made available to partners, other organizations, and the community.

11.7 The organization reviews its policies and procedures regularly, and following each outbreak makes improvements as needed.

12.0 The organization makes ongoing improvements to its IPC Program.

12.1 The organization has a quality improvement plan to evaluate the IPC program.

Guidelines:

Accreditation Canada's IPC standards outline the key sources for evaluating the IPC program, including having a surveillance plan to evaluate the impact of the organization's risk-reduction strategies on health care-associated infection rates; monitoring compliance with policies and procedures for IPC including hand hygiene and disinfection of the physical environment; evaluating the IPC education program; seeking input from staff, service providers, and clients and families on the IPC program; and monitoring process and outcome measures.

12.2 The organization monitors performance measures for infection prevention and control.

Guidelines:

The organization identifies the performance measures to monitor based on its priorities for IPC. Examples of structure-related indicators include number of interdisciplinary committee meetings/year or client information booklets containing information on health care-associated infections. Process indicators may include hand hygiene compliance rates or disinfection audits of surfaces. Outcome measures may include health care-associated infection rates.

For other examples of performance measures related to infection prevention and control, refer to A Proposed Dashboard of Indicators to Control Healthcare-Associated Infections by Blais et al. (2009).

12.3 The organization seeks input from staff, services providers, volunteers, and clients and families on the IPC program.

Guidelines:

Examples include surveys, focus groups, interviews, or meetings.

12.4 The organization uses the information it collects about the IPC program to identify successes and opportunities for improvement, and makes improvements in a timely way.

12.5 The organization shares evaluation results with staff, service providers, clients, and families.

Guidelines:

Sharing evaluation results and improvements helps staff and service providers become familiar with the concept and benefits of quality improvement. It also increases clients' and families' awareness of the organization's commitment to ongoing quality improvement.

13.0 The organization follows manufacturers' recommendations and accepted standards of practice to clean and reprocess reusable medical devices.

13.1 The organization verifies the qualifications and competencies of staff involved in reprocessing reusable medical devices.

Guidelines:

Contaminated medical devices are a potential source of infection for clients, staff, and service providers. Having written requirements for qualifications and competencies and verifying the competency of staff involved in the reprocessing of medical devices is important in preventing the mishandling or improper reprocessing of these devices.

13.2 For each contaminated device and piece of equipment, a trained staff person uses a recognized classification system to determine whether sterilization is required.

Guidelines:

Classification systems have been established by Health Canada and the Canadian Standards Association, e.g. Spaulding's classification system. The organization uses the classification system to identify critical, semi-critical, and non-critical items based on the use of the item and risk of infection. Each classification has requirements for decontamination, cleaning, and disinfection or sterilization that reduce the risk of infection.

An item that only comes into contact with clients' intact skin, i.e. blood pressure cuffs, stethoscopes, may be classified as non-critical and require low-level disinfection. Items that contact mucous membranes are considered semi-critical and require high-level disinfection. Those that enter sterile spaces or contact non-intact skin are critical devices and must be sterile.

The classification system clearly states that critical items may be used for non-critical activities or procedures, but non-critical items may not be used for critical activities or procedures.

13.3 If disinfection is required, a trained and competent staff member follows detailed procedures for cleaning and disinfecting the reusable device.

Guidelines:

The organization's disinfection procedures cover sorting, soaking, washing, rinsing and drying the items, as well as inspecting each item after drying to ensure proper functioning and to identify any chips, inappropriate sharp edges, wear, and other defects.

13.4 The staff member soaks, flushes, and cleans each device in a timely way to remove inorganic and organic matter on the device.

Guidelines:

Immersible devices may be soaked in water or a detergent-based product containing enzymes to facilitate cleaning and prevent organic matter from drying. Saline is not used as a soaking solution.

Cleaning removes inorganic and organic matter that can inhibit the disinfection process. It may be done manually or using automatic methods. For example, lumens, e.g. catheters and needles, are cleaned with a brush or pipe cleaner if possible and flushed with a detergent solution. CSA Standard Z314.8 Clause 11.4 provides more information on cleaning devices prior to disinfection.

13.5 The organization selects disinfectants based on the compatibility with the devices being disinfected; the compatibility with other agents used in disinfection or sterilization; the intended use of the devices being disinfected; and client, staff and environmental safety.

13.6 For each disinfectant, the organization follows manufacturers' recommendations for use, contact time, shelf life, storage, appropriate dilution, and required PPE.

13.7 The organization verifies the concentration of its disinfectants using appropriate test strips, and disposes of disinfectants according to manufacturer's instructions.

Guidelines:

Test strips are dated when opened and are not used past the expiry date.

13.8 The organization keeps a record of its disinfection procedures that identifies the instruments and the disinfectants used.

13.9 The organization appropriately contains and transports contaminated items to the reprocessing unit or area.

Guidelines:

The organization follows formal criteria for containing used items and transporting them to and from the area where they are sterilized. Reprocessing may be done in a specific area of the organization or at another site, or be outsourced to a private company.

13.10 The organization transports contaminated items separately from clean or sterilized items, and away from client service and high-traffic areas.

13.11 When transporting contaminated equipment and devices, the organization complies with applicable regulations, controls the environmental conditions, and uses clean and appropriate bins, boxes, bags, and transport vehicles.

Guidelines:

Environmental conditions include temperature and humidity.

The organization may require special considerations, e.g. temperature controls, shocks, special containers, when transporting devices or equipment over long distances.

13.12 The organization has policies and procedures for loaned, shared, consigned, and leased medical devices.

Guidelines:

If the organization extensively uses loaned, shared, consigned, or leased medical devices, policies and procedures are developed to address the transport of these items to and from the organization, and to handle items that are delivered unexpectedly, unclean or not sterilized, or incomplete. Refer to CSA Standard Z314-22-04 for detailed guidelines and standards for the management of loaned, shared, and leased devices and equipment.

13.13 The organization's policies and procedures include traceability for all loaned, shared, consigned, and leased medical devices.

13.14 For organizations providing neurosurgical services, the organization has policies and procedures to prevent the transmission of Creutzfeldt-Jakob disease (CJD).

Guidelines:

Policies and procedures may include completing a pre-operative assessment for high-risk surgical procedures as identified by PHAC guidelines on CJD, having a dedicated or disposable set of neurosurgical and ortho-spine devices to be used when the diagnosis of CJD has been made or is suspected pre-operatively, and tracking neurosurgical and ortho-spine devices so that they can quickly be retrieved in the event of a post-operative diagnosis of CJD (e.g. barcoding).

13.15 The organization prevents the on-site reprocessing or sterilization of critical and semi-critical single-use devices (SUD).

13.16 The organization tracks devices sent for sterilization so they can be recalled in the event of a breakdown or failure in the sterilization system.

13.17 The organization consistently follows a documented process for internal recall of surgical equipment and medical devices whenever there are questions about their sterility.

Guidelines:

Instruments, devices, and supplies could be recalled for a variety of reasons, such as when reprocessing fails or when an unusual pattern of postoperative infection is discovered.

13.18 The organization has a quality control program for the cleaning, disinfection and sterilization of reusable medical devices.

Guidelines:

The program includes ongoing supervision and competency assessment of staff responsible for cleaning, disinfecting, and sterilizing reusable medical devices. The program uses process monitoring or recording systems to verify adherence to accepted standards of practice and organizational policies and procedures, and systems to quickly identify breakdowns in the organization's cleaning, disinfection or sterilization processes, including equipment recall as required.

13.19 If reprocessing and sterilization are contracted to external providers, the organization establishes and maintains a contract with each provider.

13.20 Where sterilization and reprocessing services are contracted to external providers, the organization regularly monitors the quality of services provided.

Guidelines:

The organization verifies that the external provider follows accepted standards of practice, e.g. Canadian Standards Association, to monitor the quality of services, e.g. daily monitoring of printouts and data, reporting systems, and mechanisms to report deficiencies. The organization reviews copies of reports and printouts and any other documentation demonstrating the quality monitoring performed by the external provider.

13.21 Where sterilization and reprocessing services are contracted to external providers, the organization annually reviews each contract and maintains documentation related to the contract.

ROP 13.22 The organization monitors its processes for reprocessing equipment, and makes improvements as appropriate.

Guidelines:

Reprocessing includes the processes of cleaning, disinfection and sterilization, where the level of reprocessing used depends on the risk of infection. Monitoring their reprocessing processes helps organizations identify areas for improvement and reduce health care associated infections. Organizations reprocess equipment according to manufacturers' instructions. If the organization does not reprocess equipment, it has a process to ensure equipment has been appropriately reprocessed prior to use.

Test(s) for Compliance:

13.22.1 There is evidence that reprocessing processes and systems are effective.

13.22.2 Action has been taken to examine and improve reprocessing processes where indicated.

14.0 The organization follows specific requirements to reprocess endoscopy devices.

14.1 The organization has written requirements for education, qualification, and competency of staff involved in the reprocessing of endoscopy devices.

Guidelines:

Endoscopy devices include, for example, gastroscopes, duodenoscopes, colonoscopes, sigmoidoscopes, bronchoscopes, laryngoscopes, enteroscopes, and nasopharyngeal endoscopes.

14.2 The organization reviews and verifies the education, qualification, and competency of staff involved in reprocessing of endoscopy devices.

Guidelines:

Contaminated endoscopes are a potential source of infection for clients, staff, and service providers and verifying the competency of staff involved in the reprocessing of endoscopy devices is important in preventing the mishandling or improper reprocessing of these devices.

14.3 All endoscope reprocessing areas are physically separate from client care areas.

Guidelines:

Work areas are cleaned daily.

14.4 All endoscope reprocessing areas are equipped with separate clean and decontamination work areas as well as storage, dedicated plumbing and drains, and proper air ventilation.

Guidelines:

Ventilation helps to remove toxic vapors from the work areas. The organization regularly monitors air quality according to its policies and procedures, and Occupational Health & Safety (OHS) legislation.

Storage areas are also well-ventilated and cleaned and disinfected at least weekly.

14.5 A qualified staff member follows manufacturers' recommendations to reprocess endoscopy devices immediately following the procedure.

Guidelines:

If cleaning is not done immediately following the procedure, soil residue on the endoscope can harden, becoming very difficult to remove (CSA Z314.8, clause 14.4.1). For examples, refer to the Public Health Agency of Canada Infection Prevention and Control Guideline for Flexible Gastrointestinal Endoscopy and Flexible Bronchoscopy.

14.6 Before cleaning, a qualified staff member checks the endoscope for internal and external damages, and follows manufacturers' instructions and legal requirements to package and ship endoscopes requiring repair.

Guidelines:

The integrity of the endoscope is verified through leak testing. Damaged endoscopes are identified, removed from service, and shipped for repair following manufacturers' packaging, labelling, and shipping instructions, and in compliance with federal, or provincial or territorial regulations for the transportation of dangerous goods.

14.7 Before beginning disinfection or reprocessing, a qualified staff member soaks and manually cleans immersible endoscope components using water and an approved cleaning agent.

Guidelines:

An approved cleaning agent is an enzymatic detergent solution prepared and used according to manufacturers' instructions and compatible with the device.

While immersed, channels and lumens are flushed and brushed to remove debris; brushes are appropriately sized, inspected before and after use, and discarded or cleaned and dried after use.

Irrigation adaptors or manifolds that are compatible with the endoscopy device may be used to facilitate cleaning.

14.8 Before beginning disinfection or reprocessing, a qualified staff member rinses and dries each endoscopy device according to manufacturers' instructions.

14.9 The organization stores endoscopy devices in a manner that minimizes contamination or damage.

Guidelines:

To minimize damage, the organization does not store endoscopes coiled or in their cases. Endoscopy devices with channels or lumens are stored vertically, with channel valves outside the endoscope.

14.10 For each scope, the organization maintains a permanent record of endoscopy device reprocessing.

14.11 The record of endoscopy device reprocessing includes the identification number and type of endoscope, the identification of the automated endoscope reprocessor (AED) if applicable, date and time of the clinical procedure, the name or unique identifier of the client, results of the individual inspection and leak test, and the name of the person reprocessing the endoscope.

Guidelines:

Identifying the client, endoscopy device, and reprocessing equipment used helps facilitate outbreak investigations, device tracking, and quality control.

14.12 The organization completes preventive and scheduled maintenance, including repairs, of each automated endoscope reprocessor, and documents all maintenance and repair in its files.

Guidelines:

Documentation on the maintenance and repair of reprocessing equipment assists with device tracking and recall.

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