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COVID-19 Manitoba Health and Seniors Care (MHSC) Infection Prevention and Control Personal Protective Equipment (PPE) Guidance

Introductory Statement

These guidelines provide principles of infection transmission and recommend COVID-19 Infection Prevention and Control (IP&C) measures for Manitoba government departments and government funded organizations in settings outside the healthcare system to minimize transmission of COVID-19 infection. This includes employees, workers and clients.

These guidelines can be used by government departments to develop, support and standardize IP&C practice, polices and procedures for their workers and the agencies that they fund throughout the province. Although not regulatory in scope, the guidelines support IP&C practices to optimize the safety of workers, their clients and the public.

The principle source document for the COVID-19 Manitoba Health and Seniors Care (MHSC) Infection Prevention and Control (IP&C) PPE Guidelines is the Manitoba Health Seniors and Active Living (MHSAL) Routine Practices and Additional Precautions: Preventing the Transmission of Infection in Healthcare Settings Guideline. Avalable at:
https://www.gov.mb.ca/health/publichealth/cdc/docs/ipc/rpap.pdf
Other guidelines used to develop this document are PHAC Infection Prevention and Control Guidelines:
PHAC Infection Prevention and Control Guidelines for Outpatient and Ambulatory Settings:
https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/guidance-documents/interim-guidance-outpatient-ambulatory-care-settings.html
PHAC Infection Prevention and Control Guidelines for Home Care Settings:
https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/health-professionals/infection-prevention-control-covid-19-interim-guidance-home-care-settings.html
Manitoba Workplace Safety and Health Act:
https://www.gov.mb.ca/labour/safety/pdf/whs_workplace_safety_act_and_regs.pdf
For the purpose of this manual, modifications of routine practices have been made to address appropriate practices for use in non-healthcare facilities/organizations throughout Manitoba in the context of the COVID-19 pandemic.

This manual aligns with the COVID-19 PPE Supply Management and Stewardship Planning and Guidance Framework; which includes safe deviations from usual Infection Prevention and Control (IP&C) Routine Practices and Additional Precautions. These are necessary in light of the "unprecedented demands of a sustained COVID-19 response". The framework is available at: https://sharedhealthmb.ca/files/covid-19-provincial-ppe-framework-guidance.pdf.

This guidance is informed by currently available scientific evidence and expert opinion and is subject to change as new information on transmissibility and epidemiology becomes available. Where there is insufficient published research, consensus by experts in the field is used to develop specific recommendations.

The use of Personal Protective Equipment (PPE) is only one element of routine practices and must be used in conjunction with other routine practices (hand hygiene, physical distancing, staying home when ill) to protect the worker. PPE is a supplement to these elements of routine practices and should not be relied upon as a stand-alone prevention measure. Refer to Hierarchy of Controls.
These guidelines provide evidence-based and best practice recommendations to:

- Support programs in limiting COVID-19 infection transmission within individual settings.
- Reaffirm routine practices as the foundation for preventing the transmission of microorganisms in these settings, and

- Support appropriate use, when required, of additional precautions, in addition to routine practices

Abbreviations
Refer to Appendix A

Definitions
Refer to Appendix B

General Overall Principles:

- Application of some routine infection prevention and control practices (e.g., hand hygiene, respiratory hygiene) is recommended for the interaction and care of all clients. Application of additional precautions for clients with known or suspected COVID-19 as listed in the Non-Medical Mask and PPE Tables.
- Modified measures beyond routine practices (e.g., extended use of medical masks or N95 respirators) may be appropriate due to limitations in supplies related to COVID-19. These additional measures have been developed and posted on the Shared Health website. These measures are addressed throughout this document and staff are to refer to the documents and links when required.
- Screening of COVID-19 should be done by workers prior to attending work and clients prior to attendance as well when they come to government departments according to Shared Health COVID-19 Screening Tool: https://sharedhealthmb.ca/covid19/screening-tool/. Individuals who fail screening according to the tool should stay home/go home or if in a congregate setting (e.g., correction centre, group home), be isolated accordingly
- Medical masks are considered PPE and should be managed according the principles outlined in this document. Non-medical masks are not considered PPE although many of the principles of wearing medical masks may apply (e.g., appropriate use, extended use). Wearing a non-medical mask can protect the people around you. When worn properly, a person wearing a non-medical mask may reduce the spread of their own respiratory droplets from spreading to others or landing on surfaces. Non-medical masks, when worn properly, may also help to protect the wearer from exposure to the respiratory droplets of others. "Refer to your department's Recommendations for Non-Medical Mask and PPE Table for specific details.
  Refer to Mask Guidance for Manitobans:
  https://www.gov.mb.ca/covid19/fundamentals/masks.html#:~:text=All%20Manitobans%20should%20stay%20home,hand%20hygiene%20and%20cough%20etiquette.
  Refer to Mask Myths and Facts for Manitobans:
  https://www.gov.mb.ca/covid19/updates/masks.html
- Microorganisms may be transmitted from both symptomatic and asymptomatic individuals. Adherence to routine practices can reduce the transmission of microorganisms in all settings.
- Departments and organizations are expected to perform an organizational risk assessment (ORA) which evaluates their environment and identifies the risk of exposure to COVID-19; and to implement appropriate control measures based on this assessment (e.g., screening, facility/organization design, cleaning, disinfection, ventilation). Refer to Manitoba Workplace Self-Assessment Checklist for COVID-19
  https://manitoba.ca/asset_library/en/covid/workplace-self-assessment-tool.pdf

- The Manitoba Workplace Health and Safety Act outlines the employer's responsibilities for PPE. They must perform a risk assessment of their workplace. Employers have to provide PPE according to this risk assessment, and train employees how to safely use the PPE. They must also provide Safe Work Practices and monitor for PPE compliance in their workers.
- Specific infection prevention and control measures are determined by a Point of Care Risk Assessment (i.e., an assessment of the task or care to be performed, the client's clinical presentation, physical state of the environment and the setting). Workers are expected to perform a PCRA prior to each client interaction.
- Alcohol-based hand rubs (ABHR, hand sanitizer) and handwashing are essential practices for hand hygiene. Implementing respiratory hygiene is necessary as a strategy to prevent transmission of COVID-19 and other respiratory pathogens.
- Spatial separation of 2 metres (6 feet) from a client/staff/others at all times is important to reduce transmission of COVID-19 and other respiratory pathogens. Always maintain physical distancing unless specific tasks prevent this. When physical distancing cannot be maintained non-medical masks or appropriate PPE must be worn, or as required by public health orders https://www.gov.mb.ca/covid19/restartmb/prs/orders/index.html.
- Implement strategies to reduce aerosols when performing Aerosol Generating Medical procedures on clients. See Respiratory Protection section.
- The need for application of additional precautions may vary between sites and organizations. Additional precautions are based on the clinical presentation before the specific infecting organism has been confirmed and may need to be modified or discontinued once the specific microorganism is identified.

Chain of Infection

Transmission of microorganisms (germs) may occur via carriers of the organism with or without symptoms of infection.

One framework for understanding this complex relationship is the chain of infection, which visualizes the interaction as six links in the chain**.** Refer to the Chain of Infection in Appendix C.

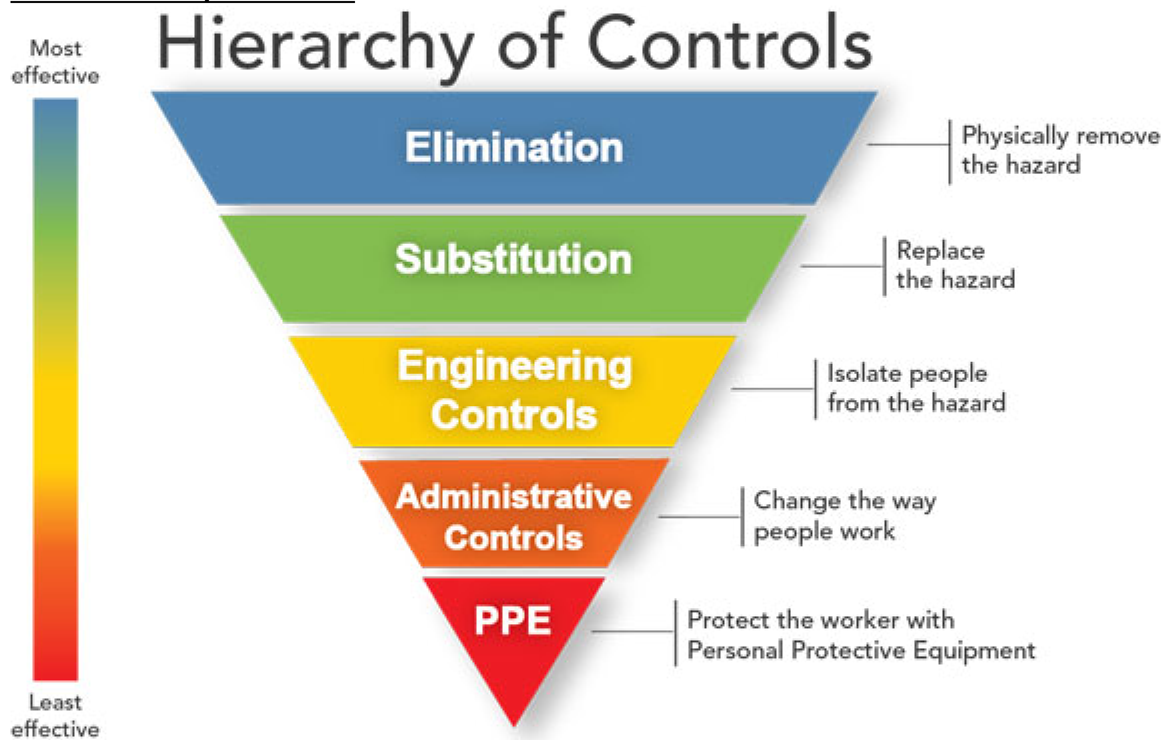
Hierarchy of Controls to Reduce Exposure to and Transmission of Infectious Agents

The approach to containment of a hazard is to implement a Hierarchy of Controls. The Hierarchy of Controls is a tiered framework/approach of measures and interventions from the most to least effective controls. This enables departments and organizations to comprehensively evaluate the risk of their workers' (including volunteers) exposure to microorganisms and other hazards in the workplace, and to assess the effectiveness of the departments and organization's mitigation responses.

The **first level** of control is **engineering interventions**. The **second** is **administrative interventions**. **Personal protective equipment** (PPE) is the last (**third**) level in the hierarchy of controls, as the use is dependent on variables of worker adherence. If engineering controls are not possible or adequate, then administrative interventions should be used.

While the use of PPE controls may be the most visible in the hierarchy of controls, PPE controls are the weakest tier in the hierarchy and should not be relied on as a stand-alone primary prevention program.

NIOSH Hierarchy of Controls



Engineering Controls

Engineering controls reduce the risk of exposure to an infectious agent or infected source hazard by applying building structure or ventilation strategies. Engineering controls do not depend on an individual's compliance with exposure prevention strategies. These controls are usually established and controlled within the building infrastructure, thereby eliminating an individual's choice about their application and reducing the opportunity for individual error.

Examples of engineering controls are:

- Single rooms
- Signage to direct clients to separate entrances
- Physical barriers
- Appropriate ventilation
- Installation of point of care ABHR/hand sanitizer, appropriate functioning handwashing sinks and supplies
- Appropriate number of receptacles for disposal of masks, gloves, paper towels, tissues

Administrative Controls

Administrative controls provide an infrastructure of policies, procedures, and practices intended to prevent exposure to and transmission of microorganisms to a susceptible host during the provision of service. To be effective, administrative controls must be implemented at the point of first encounter with a suspect or known infected source and be continued until the source leaves the setting (interaction ends), or the source is no longer infectious. Inherent in the development and practice of administrative controls is ensuring sufficient resources are supplied to allow implementation of the controls.

Examples of administrative controls are:

- Appropriate resources for the identification and management of suspected or infected clients, workers and visitors
- Organizational support for the management of outbreaks
- Spatial separation (e.g., 2 metres/6 feet)
- Education of workers and clients
- Cohorting of workers
- Appropriate supply of PPE
- Policies and procedures to support the application of
  - Routine Practices, including
    - Point of Care Risk Assessment (PCRA)
    - Hand hygiene and point of care ABHR/hand sanitizer
    - Client placement, accommodation and flow
  - Additional Precautions when PCRA determines routine practices are not sufficient

Personal Protective Equipment

The PPE tier provides a physical barrier between the uninfected individual and an infectious agent or infected source.

These barriers include:

- gloves
- gowns
- facial protection includes medical masks and eye protection (face shields, frames with eye lenses, medical masks with visor attachments)
- N95 respirators

Specific Elements of Routine Practices to Follow

Point of Care Risk Assessment (PCRA)

A Point of Care Risk Assessment (PCRA) is a tool for workers to use before each interaction with the potentially infected person to ensure appropriate IP&C measures will be applied. Prior to every interaction with a client, all workers are responsible to assess the infectious risk to themselves, the type of contact/care with the client, and the situation or task.

The PCRA should be used by both clinical and non-clinical staff.

Perform a PCRA considering organism transmission risk for the specific worker related to the:

1. Interaction/task
2. Environment
3. Type of contact/care with the client
4. Worker

When a worker evaluates the client, the situation and task, the following should be reviewed:

- The possibility of exposure to blood, body fluids, secretions and excretions, non-intact skin, and mucous membranes and selection of appropriate control measures (e.g., PPE) to prevent exposure.
- The need for Additional IP&C Precautions when routine practices are not sufficient to prevent exposure.
- The priority for single rooms or for roommate selection if rooms/spaces are to be shared.
- Other high risks situations that may cause the spread of microorganisms.

How to perform a PCRA:
This involves asking a series of questions before every client interaction to determine the risk of being exposed to a potential hazard, such as COVID-19. The following is a link to Shared Health COVID-19 Point of Care Risk Assessment. Although it is based on a medical model it can be a good tool to use for assessment outside of the healthcare environment as well.
https://sharedhealthmb.ca/wp-content/uploads/covid-19-point-of-care-risk-assessment-tool.pdf

A Point of Care Risk Assessment should be repeated throughout the day to incorporate any relevant changes.

Hand Hygiene

Hand hygiene by handwashing or using ABHR/hand sanitizer must be performed:

- Prior to contact with every client/client's environment
- After contact with every client/client's environment
- After contact with blood and body fluids (e.g., sputum, nasal secretions)
- Before donning (putting on) non-medical mask or PPE, after doffing (removing) non-medical mask or PPE, and at specific points during the doffing of PPE
- After contact with contaminated items (contaminated surfaces, equipment)
- Prior to and after food preparation
- After using the washroom

Hands must be washed with soap and water if hands are visibly soiled.

If soap and water are not available

- Hand wipes with antimicrobials or soap may be used to remove visible soil and/or organic material. They are not a substitute for ABHR/hand sanitizer because they are not as effective at reducing bacterial counts on hands.
- Hand wipes may ONLY be considered as an alternative to washing hands with plain soap and water (when hands are visibly soiled) in settings where a designated hand washing sink is not available or when the hand washing sink is not satisfactory (e.g., sink used for other purposes, no running water, no soap).
- When hands are visibly soiled use the wipe to remove the soiling and then follow with ABHR to do hand hygiene. Hands should be washed once a suitable sink and water is available.

Source Control

- The type of source control measures that should be implemented will depend on the type of environment.
- Screening of COVID-19 should be done by workers prior to attending work and clients prior to attendance as well when they come to government departments according to Shared Health COVID-19 Screening Tool: https://sharedhealthmb.ca/covid19/screening-tool/. Individuals who fail screening according to the tool should stay home/go home or if in a congregate setting (e.g., correction centre, group home), be isolated accordingly
- For areas where clients/visitors are seen on a regular basis
    - Post signs to direct clients/visitors with symptoms of infection (e.g., cough, fever, vomiting, and diarrhea) not to enter.
- Ensure a physical barrier (e.g. plastic partition at desk) is located between potentially infectious sources (e.g. clients/visitors) and others

- For areas/spaces where clients/visitors may be infected (e.g., correctional centres, group homes) ensure client with signs and symptoms of COVID-19 are placed into a separate room

Respiratory Hygiene

Respiratory hygiene measure should be practiced at all times and include:

- Using tissues to contain respiratory secretions by covering the mouth and nose during coughing or sneezing, with prompt disposal of these into a hands-free waste receptacle. Perform hand hygiene after.
- Covering the mouth and nose against a sleeve or shoulder during coughing or sneezing if a tissue is not available.
- Turning the head away from others when coughing or sneezing.
- Maintain a spatial separation of at least two metres between individuals symptomatic with an acute respiratory infection (symptoms may include new cough, shortness of breath and fever) and those who do not have symptoms of a respiratory infection.

If service is absolutely necessary, reinforce respiratory hygiene for clients/visitors who have signs and symptoms of COVID-19, beginning at the point of initial encounter in any setting (e.g., reception, waiting areas).

Client Placement and Accommodation

Determine options for client placement in residential or congregate settings based on:

- Presence or absence of known or suspected infection (e.g., need for Additional Precautions).
- Route(s) of transmission of COVID-19: COVID-19 is spread via the droplet/contact routes and if an AGMP is performed, airborne transmission is possible
  - Contact (single room is preferred)
  - Droplet (single room is preferred)
  - Airborne (single room)
- Susceptibility of other clients
- Client options for room sharing (e.g., cohorting clients infected with the same organism)
- Ability of client to comply with infection prevention and control measures

Considerations for appropriate sharing of rooms may be necessary if single rooms are limited.

Client Transfer

In residential or congregate settings, avoid or limit transfer if absolutely necessary of clients suspected or positive for COVID-19. If transfer cannot be avoided ensure receiving institution/personnel are aware of client's status.

Personal Protective Equipment (PPE)

Adhere to proper technique for putting on and taking off personal protective equipment and other important information. These documents are applicable for the healthcare setting but they are still applicable to anyone who is using PPE.

Refer to Shared Health Donning-Acute Care
https://sharedhealthmb.ca/covid19/providers/ppe-resources/
Refer to Shared Health Doffing-Facility-Acute Care
https://sharedhealthmb.ca/covid19/providers/ppe-resources/
Refer to Shared Health Donning-In Home Visit
https://sharedhealthmb.ca/covid19/providers/ppe-resources/

Refer to Shared Health Donning-In Home Visit
https://sharedhealthmb.ca/covid19/providers/ppe-resources/
Refer to Shared Health The "who, what, where, when, how and why" of Personal Protective Equipment
https://sharedhealthmb.ca/files/infection-prevention-and-control-learning-booklet.pdf
Refer to Shared Health PPE Wearing It Right
https://sharedhealthmb.ca/files/covid-19-ppe-wearing-it-right.pdf

Gloves (clean single-use, non sterile)
Gloves are not a substitute for hand hygiene.
Hand hygiene MUST be performed before applying gloves, and after removing gloves.

- Gloves are not required for routine client activities when contact is limited to the client's intact skin.
- Wear gloves as determined by the PCRA:
  - For anticipated contact with blood, body fluids, secretions and excretions, mucous membranes, draining wounds or non-intact skin (including skin lesions or rash)
  - For handling items or touching surfaces visibly or potentially soiled with blood, body fluids, secretions or excretions
  - While having direct contact if the worker has an open cut or abrasions on the hands

Appropriate Glove Use:

- Perform hand hygiene prior to putting on gloves.
- Put gloves on directly before contact with the client or just before the tasks or procedure requiring gloves.
- Wear gloves with fit and durability appropriate to the task.
- Wear disposable gloves or reusable utility gloves for cleaning the environment or medical equipment. Refer to work procedures/protocols for care and cleaning of reusable utility gloves.
- Remove gloves and perform hand hygiene
  - immediately after contact with client's blood or body fluids or contaminated items/surfaces and
  - before continuing contact with the same client and
  - if gloves are still indicated, replace with a clean pair.
- Remove gloves and dispose into a hands-free waste receptacle immediately following their intended use. Refer to Shared Health donning and doffing procedures outlined above.
- Do not reuse single-use gloves. Do not clean them with alcohol-based hand rub or wash for reuse.
- Do not use the same pair of gloves for the care of more than one client.
- Do not store gloves in pockets for future use
- Perform hand hygiene following the removal of gloves, before leaving the client's environment and before touching clean environmental surfaces.

Long Sleeved Gowns
Wear long-sleeved, cuffed gowns as determined by the PCRA:

- To protect uncovered skin
- To prevent soiling of clothing
- During procedures and client activities likely to soil clothing or generate splashes or sprays of blood, body fluids, secretions or excretions

- As required by additional precautions

Appropriate Gown Use:
To don (put on) the gown
- Perform hand hygiene before gowning.
- Ensure the gown is long enough to cover the front and back of the worker, from the neck to mid-thigh and the sleeves are no shorter than just above the wrist.
- Put the gown on with the opening at the back, with edges overlapping, thus covering as much clothing as possible. Double gown if unable to attain coverage with one gown. Refer to Shared Health donning and doffing procedures outlined above.
- Ensure the cuffs of the gown are covered by gloves.
- Tie the gown at the neck and then the waist.

To doff (remove) the gown:
- Perform hand hygiene
- Remove the gown by undoing the neck and waist ties, starting with neck ties, and remove the gown without touching the clothing or agitating the gown unnecessarily. Then turn the gown inside on itself, and roll it up.
- Remove the gown immediately after the indication for use and place in a hands-free waste receptacle. Perform hand hygiene before leaving the client's environment.
- Remove wet gowns immediately to prevent a wicking action that facilitates the passage of microorganisms through the fabric.
- Do not reuse gowns once removed, even for repeated contacts with same patient.
- Do not wear the same gown between successive clients unless indicated for COVID-19 precautions.

Facial Protection
Facial protection includes medical masks (procedure or surgical) and eye protection (face shields, frames with eye lenses, medical masks with visor attachments). Facial protection does not include non-medical masks or N95 respirators.
The use of facial protection is
- To protect from sprays or splashes.
- To be used as a barrier for infectious sources.
- Protect susceptible hosts when within two metres/six feet of clients with droplet-spread organisms.

Appropriate Use of Facial Protection:
- The need for facial protection is determined by the PCRA or additional precautions:
    - Perform hand hygiene prior to putting on facial protection
    - Ensure nose, mouth and chin are covered when wearing a mask.
    - Avoid self-contamination by not touching your face once on or not touching facial protection on its external surface during use and disposal.
    - Remove facial protection carefully by the straps, ties or loops.
    - Masks
        - Bend forward to allow the mask to fall away from the face
        - Do not dangle a mask around the neck when not in use.
        - Do not position on the head or around the neck for later use.
        - Do not fold and store a mask in a pocket.

        - Change a mask if it becomes wet, soiled, or if breathing becomes difficult.
    - Eye Protection
        - When eye protection is required, wear eye protection over prescription or fashion glasses; prescription or fashion glasses alone are not adequate for eye protection.
        - If eye protection or face shields are reusable, clean and disinfect according to Shared Health procedure.

Non-Medical Masks

Non-medical masks are not considered PPE and there is no need to perform a PCRA for the safe and appropriate use, the above principles would also apply.

- Refer to your department's Non-Medical Mask and PPE Table for specific details of when you should be wearing a non-medical.
- Although non-medical masks are required in situations where physical distancing cannot be maintained, workers may choose to wear medical masks instead, especially if the exposure is greater than 10 minutes.

Refer to Shared Health Guidance on Extended Wear of Medical Face Masks in Green Zones.
https://sharedhealthmb.ca/files/extended-use-of-face-masks.pdf
Refer to Shared Health Donning, Doffing and Storage of Healthcare Workers Procedure Masks
https://vimeo.com/403797242
Please refer to: Personal Protective Equipment and Skin Related Issues
https://sharedhealthmb.ca/files/covid-19-ppe-and-skin-injuries-internal-oh-process.pdf.

Respiratory Protection

Respiratory protection from airborne infection requires the use of a respirator with NIOSH-approved or approved by a certifying agency equivalent to NIOSH (N95 higher filtration) to prevent inhalation of microorganisms.
In the setting of COVID-19, N95 respirators are typically only required when providing care involving an AGMP. For the list of AGMPs, refer to https://sharedhealthmb.ca/files/aerosol-generating-medical-procedures-AGMPs.pdf. The need for respiratory protection is determined by a PCRA or Additional Precautions.

In addition to these situations, there has been an agreement between the Manitoba Nurses Union (MNU) and Shared Health (https://sharedhealthmb.ca/files/covid-19-ppe-requirements-memo.pdf) which requires all health systems operators to ensure that staff working with COVID-19 positive and suspect patients/residents/clients in environments where the risk of exposure to COVID-19 is higher are able to access an N95 respirator, if they choose. Staff may continue wearing a procedure mask, as long as an AGMP is not being performed. This agreement was also extended to all health-care workers that provide direct care to individuals who are suspected or confirmed cases. Manitoba Public Health recognizes that outside of the health care system, there are government employees that provide similar functions to health-care workers and provide care to residents/clients that are suspected or confirmed cases of COVID-19. Access to an N95 respirator is available to all government employees who provide **direct care** to individuals who are suspect or confirmed cases of COVID-19.

Refer to Shared Health COVID-19 Personal Protective Equipment Supply Management and Stewardship Planning and Guidance Framework for the definition of COVID-19 suspect
https://sharedhealthmb.ca/files/covid-19-provincial-ppe-framework-guidance.pdf

Appropriate Use of Respiratory Protection:
Employers/managers of these government employees or government funded agencies are responsible for ensuring fit-testing, education and auditing of appropriate use and conservation of PPE. Workers must be fit tested for N95 respirators by someone competent (having knowledge, training and experience) in the practice of fit testing. Fit testing is often confused with the respiratory seal check. Even after fit testing, a respirator seal check must be carried out by the wearer upon each donning. Workers must be trained in the use, care and limitations of the approved respirators. Training for worker use (donning, doffing, seal check), care and limitations of the respirator is usually performed at the time of fit testing.

Employers/managers must ensure simplified access (available at hand or easily available) to N95 respirators for employees who fit the above situations.
Who may access an N95 respirator?

- N95 respirators are required to be provided to the following workers (a PCRA for COVID-19 is not required):
  - assisting with an AGMP (e.g. sleep apnea machine)
  - performing a nasopharyngeal swab

N95 respirators are to be used as extended use, but once removed, are not to be reused. The N95 will be warmer, tighter and more uncomfortable to use for extended wear than a medical mask.

PPE Training, Observation, and Monitoring:
To ensure the worker is being protected it is important to have heightened awareness in how PPE is being used appropriately. This includes training, observation, and monitoring of the required PPE according to the tasks involved; donning and doffing including extended wear; and management and disposal of used PPE according to Shared Health's PPE requirements as well as the Use of PPE section in this manual.
A trained observer is a dedicated individual with the sole responsibilities of ensuring adherence to infection prevention and control measures during the care of COVID-19 cases and suspects. This individual must be knowledgeable about all PPE recommended in the Shared Health COVID-19 protocols. This person must be qualified to provide guidance and technique recommendations to the worker. The trained observer monitors donning and doffing procedures, providing guidance and immediate corrective instruction if the worker is not following the recommended steps. The trained observer also monitors interactions of the worker in the work environment for adherence to infection prevention and control measures and worker, which may lead to PPE breaches. The trained observer must also be knowledgeable about the exposure management plan in the event of an unintentional break in procedure.

PPE Observer Information:

- **Donning & doffing PPE checklist**
- **Incident log**
- **PPE observer training**
- **Trained PPE observer reference**

APPENDIX A

Abbreviations

ABHR: Alcohol-based hand rub(s)
AGMP: Aerosol-generating medical procedure(s)
HAI: Healthcare associated infection
IP&C: Infection prevention and control
MHSC: Manitoba Health and Seniors Care
MHSAL: Manitoba Health, Seniors and Active Living
N95: N95 Respirator
ORA: Organizational risk assessment
PCRA: Point of Care Risk Assessment
PPE: Personal protective equipment

APPENDIX B

Definitions

ABHR
This refers to an alcohol-containing (60 to 90 per cent) preparation (liquid, gel or foam), designed for application to the hands to kill or reduce the growth of microorganisms. Such preparations contain one or more types of alcohol with emollients and other active ingredients (see the PHAC Infection Control Guidelines Hand Hygiene Practices in Healthcare Settings
https://ipac-canada.org/photos/custom/OldSite/pdf/2013_PHAC_Hand%20Hygiene-EN.pdf

Alcohol Based Hand Sanitizer
This is another name for ABHR.

Additional Precautions
These are additional measures implemented 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 based on condition and clinical presentation (syndrome) and on specific etiology (diagnosis).

Client
Individuals who are receiving care or service within Manitoba Government Departments or funded organizations.

Cohort
Cohort refers to physically separating (e.g., in a separate room or ward) two or more clients exposed to or infected with the same microorganism from other clients who have not been exposed to or infected with that microorganism

Doffing:
Removing PPE

Donning:

Putting on PPE

Hand Hygiene
This is a comprehensive term that applies to hand washing, hand antisepsis and to actions taken to maintain healthy hands and fingernails

Handwashing
Hand washing is a process for the removal of visible soil and organic material and transient microorganisms from the hands by washing with soap and water. It is also referred to as hand cleansing

Healthcare Associated Infection (HAI)
These are infections that are acquired within a health care setting (also referred to as nosocomial) during the provision of health care.

Medical Mask
A medical mask is a barrier to prevent droplets from an infected source from contaminating the skin and mucous membranes of the nose and mouth of the wearer, or to trap droplets expelled by the wearer, depending on the intended use. The medical mask should be durable enough so that it will function effectively for the duration of the given activity. The term medical mask in this document refers to surgical or procedure masks, not to respirators. Health Canada requires medical masks to meet these specifications: https://buyandsell.gc.ca/specifications-for-COVID-19-products#200

N95 Respirator
The N95 is a disposable, particulate respirator (note: most respirators used for health care purposes are disposable filtering face pieces, covering the mouth, nose and chin). Airborne particles are captured from the air on the filter media by interception, inertial impaction, diffusion and electrostatic attraction. The filter is certified to capture at least 95 per cent of particles at a diameter of 0.3 microns, which is the most penetrating particle size. Particles of smaller and larger size are collected with greater efficiency. The 'N' indicates a respirator that is not oil-resistant or oil-proof. N95 respirators are certified by the National Institute for Occupational Health and Safety (NIOSH –organization based in the United States) and must be so stamped on each respirator (see also Respirator).

Non-medical Mask
A non-medical mask is a mask that has not gone through or passed medical mask test requirements. It may be single-use or reusable. Manitoba Public Health recommends a non-medical mask to be made of a tightly-woven material (cotton or linen is a good choice) and made of at least two layers of material. Refer to Manitoba Public Health for more information on non-medical masks.
https://www.gov.mb.ca/covid19/fundamentals/masks.html

Point of Care Risk Assessment (PCRA)
A PCRA is an activity whereby a staff member interacting or caring for clients 1) Evaluates the likelihood of exposure to an infectious agent a. for a specific interaction b. with a specific client c. in a specific environment (e.g., single room, hallway) d. under available conditions (e.g., no designated hand hygiene sink) 2) Chooses the appropriate actions or PPE needed to minimize the risk of exposure for the specific client, other clients in the environment, the worker, other staff, visitors or contractors, etc.

Personal Protective Equipment (PPE)

This is one element in the Hierarchy of Controls. PPE consists of gowns, gloves, medical masks, facial protection (i.e., medical masks and eye protection, face shields or medical masks with visor attachment) and respirators that can be used by a worker or other staff to provide a barrier that will prevent potential exposure to infectious microorganisms.

Point of Care
Point of care refers to place where a client receives care from a worker or other staff. Point of care incorporates three elements being present at the same time: the client, the worker, and an interaction that could result in transmission of an infectious agent.

PPE Extended Use/Wear
Extended use is the continuous wearing of an item of PPE between clients patients (e.g., without removal between patients). This is done according to Shared Health extended wear recommendations/requirements (for some items of PPE, may be for more than one client). These items are not reused.
As part of Manitoba's Provincial Recommendations for Non-Medical Mask and Personal Protective Equipment, in certain settings and situations, medical masks and eye protection are to be used for an extended period, including repeated interactions with multiple clients, for up to a maximum of one complete shift. These items are not reused.

PPE Reuse
Re-use of PPE refers to the practice of doffing a piece of equipment, cleaning and disinfecting appropriately, storing it securely, and re-donning it during the same shift in accordance with an SOP.

Respirator
A respirator is a device that is tested and certified by procedures established by testing and certification agencies recognized by the authority having jurisdiction. It is used to protect the user from inhaling a hazardous substance in the atmosphere. Tt is a personal protective device that fits tightly around the nose and mouth of the wearer, and is used to reduce the risk of inhaling hazardous airborne particles and aerosols, including dust particles and infectious agents. See also N95 Respirator, Respiratory Protection, Fit testing, Seal check.

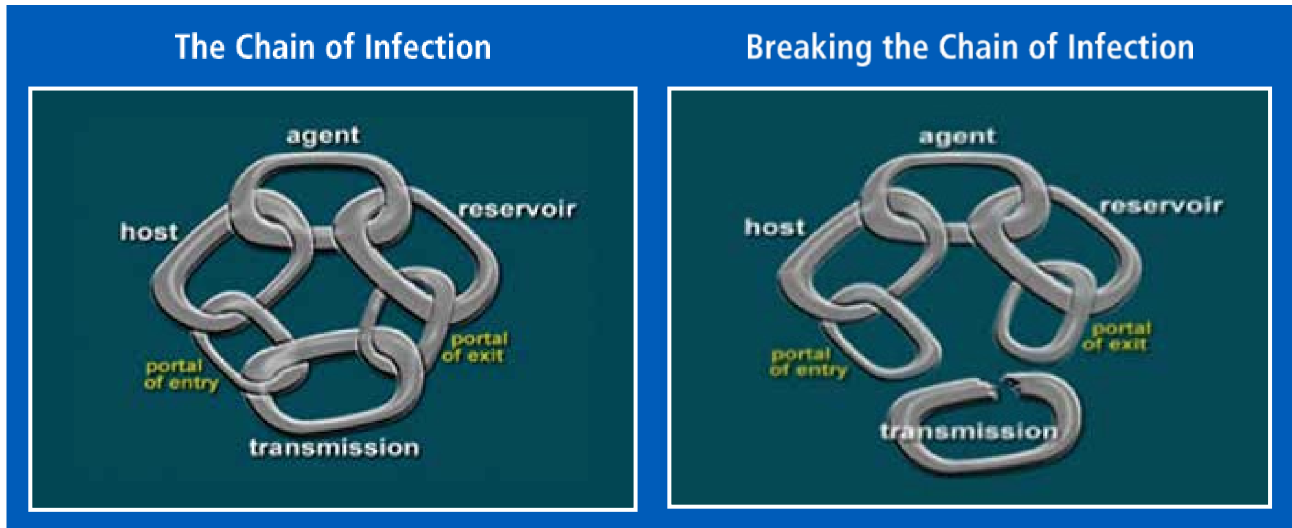
Respiratory Hygiene/Cough Etiquette
This refers to a combination of measures to be taken by a symptomatic source designed to minimize the transmission of respiratory microorganisms (e.g., influenza).

Routine Practices
This refers to a comprehensive set of IP&C measures that have been developed for use in the routine care of all patients at all times in all health care settings. Routine practices aim to minimize or prevent HAIs in all individuals in the health care setting, including clients, worker, other staff, visitors, contractors, etc. Routine Practices can be used in other settings with modifications.

Worker
A Manitoba Government employee or an employee of a Manitoba Government funded agency.

APPENDIX C

The chain of infection is an example of how an infection occurs. There are opportunities or interventions at several points that can reduce or eliminate the infection).



Infectious Agents (microorganisms)

These are bacteria, viruses, fungi, parasites and prions which may be endogenous flora (i.e., client's own microorganisms) or exogenous flora (i.e., microorganisms' external to the client, for example from other individuals, plants or inanimate objects).

COVID-19: The Infectious agent is a virus: SARS-CoV-2.

Reservoirs

Animals and the environment are reservoirs of infectious agents (microorganisms).

COVID-19: Reservoir is humans.

Routes of Transmission

There are 5 main routes of transmission, varying with the microorganisms involved. These routes are contact, droplet, airborne, common vehicle and vector borne. Some microorganisms can be transferred by more than one route.

COVID-19: Routes of transmission are:

- Contact
    - Contact transmission occurs when microorganisms are transferred **through** physical contact between an infected source and a host (e.g. shaking hands) or through the passive transfer of the microorganisms to a host, via an intermediate object (e.g. contaminated surfaces). Contact transmission includes both direct contact and indirect contact.
- Droplet
    - Droplet transmission may occur when droplets that contain microorganisms are propelled a short distance (within two metres) through the air and are deposited on the mucous membranes of a host. Droplets may also contaminate the immediate environment when they settle on surfaces and may contribute to contact transmission.

Droplets are generated naturally from an infected source primarily during coughing, sneezing and talking.

- Airborne
    - Airborne transmission may occur if small particles (i.e., aerosols containing droplet nuclei) with infectious microorganisms are generated and propelled over short or long distances, and inhaled by a susceptible host. Aerosols containing infectious microorganisms are generated naturally from an infected source during coughing, sneezing and talking, or artificially through AGMPs. Airborne exposure may result immediately after generation or after a longer period of time (e.g. suspension in the air of droplet nuclei during which time a susceptible host may inhale the suspended aerosol).

Portals of Entry

A portal of entry is the route by which an infectious agent enters the host. Some routes are entry into/onto the mucous membranes of the respiratory tract, the gastrointestinal tract, the urinary tract or breaks in the skin (e.g., wounds).
COVID-19: Portals of entry are eyes, nose and mouth.

Portals of Exit

Portals of exit are the route by which an infectious agent (microorganism) leaves the reservoir. Infectious agents are contained in blood, body fluids, excretions, secretions and skin of human reservoirs, depending on the agent, and may leave the reservoir through the respiratory, gastrointestinal or integumentary (skin and mucous membranes) system.
COVID-19: Portals of exit are nose, mouth and bowel.

Susceptible Host

An individual must be susceptible to the infectious agent (microorganism) for an infection to occur. Humans do not become infected with most animal viruses because they do not have the appropriate mechanisms/receptors in their body.
COVID-19: Susceptible host is humans.

The following are examples of interventions to reduce or eliminate COVID-19 infection:

- Disinfectants
- Cleaning and disinfection of the environment/contaminated equipment
- Hand hygiene
- Wearing PPE
- Physical distancing
- Adequate ventilation
- Respiratory hygiene
- Vaccination
- Staying home when ill
- Reduction of excretions or secretions
- Covering portals of exit (e.g., masks)
- Ensuring good host defences
- Immunization
- Good nutrition
- Control of diseases that increase risk of infection

- Keeping the mucous membranes and skin intact

References

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