Pandemic Influenza Response Plan

Site Applicability

All PHC Acute and Long Term Care Sites.

Practice Level

Basic: All direct and indirect care staff

Guideline

This guideline is taken from the Vancouver Coastal Health 2018 Regional Pandemic Outbreak Response Plan for Influenza, Chapter 3 Infection and Environmental Control.

Links to additional resources and materials have been updated to PHC specific content when available.

Chapter Overview

Chapter 3 - Infection and Environmental Control

Adherence to infection prevention and control policies and procedures minimizes transmission of influenza in health care settings. However it is important to remember that influenza is largely transmitted in the community.

Routine practices are important to prevent the transmission of infection during the delivery of health care in all health care settings during a pandemic. Strict adherence to hand hygiene, isolation and containment of respiratory secretions produced by coughing and sneezing are the cornerstones of infection prevention and may at times be the only significant preventative measure available during a pandemic.

This chapter provides an overview of infection prevention and environmental control guidelines that will be critical to minimizing the transmission of pandemic influenza.

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3.1 Infection Control Guidelines

Assumptions Concerning Infection Control in a Pandemic

The principles of containment and infection control for pandemic influenza are based on the premise that pandemic influenza has similar properties to seasonal influenza. These should only be changed if there is evidence to do so based on surveillance and epidemiology of the pandemic virus. The principles are:

- Person to person spread of human influenza is well established.
- The modes of transmission are:
    - Airborne transmission: near field and far field transmission can occur during regular physiologic activity (speaking, coughing, sneezing). Airborne transmission is also a concern during aerosol generating procedures.
    - Droplet contact of the oral, nasal or possibly conjunctival mucous membranes with the oropharyngeal secretions of an infected individual
    - Indirect contact from hands and articles freshly soiled with discharges of the nose and throat of an acutely ill individual
- The incubation period of human influenza is 1 to 4 days.
- Period of communicability of influenza is 24 hours before symptom onset and up to 5 days after the onset of symptoms (may be up to 7 days in children and some adults). People are most infectious when symptomatic. Virus shedding may be considerably longer in immunocompromised individuals.
- Influenza virus can survive on hard surfaces for 24 to 48 hours, on softer, porous surfaces for 8 to 12 hours and on the hands for up to 5 minutes.
- Influenza viruses are easily deactivated by washing with soap and water, or alcohol hand rub and by cleaning and disinfecting surfaces with normal household detergents and cleaners.
- There may be a mix of circulating respiratory viruses in the community, so principles of containment and cohorting of patients need to be appropriately assessed.

Infection Control Practices

The following documents contain key infection control guidelines that may apply during a pandemic:

- PHC IPAC content. Found at: https://connect.phcnet.ca/quality-safety-value/ipac
- VCH Infection Control Manuals. Found at: http://ipac.vch.ca/resource-manuals
- PICNet Reference for Respiratory Outbreak Prevention and Control Guidelines (2011). Found at: https://www.picnet.ca/wp-content/uploads/PICNet_RI_Outbreak_Guidelines.pdf
- Patient Safety Branch, BC Ministry of Health (2011). Best Practice Guidelines for the Cleaning, Disinfection and Sterilization of Critical and Semi-critical Medical Devices in BC Health Authorities. Found at:

https://www.health.gov.bc.ca/library/publications/year/2011/Best-practice-guidelines-cleaning.pdf

- Canadian Committee on Antibiotic Resistance (2007) Infection Prevention and Control Best Practices for Long Term Care, Home and Community Care including Health Care Offices and Ambulatory Clinics. Found at: http://www.cpsa.ca/wpcontent/uploads/2015/04/IPAC-Best_Practices_general.pdf

Routine Practices (a.k.a Standard Precautions)

The consistent and appropriate use of routine practices by all health care providers with all client encounters will lessen microbial transmission in the health care setting and reduce the need for additional precautions.

The Elements of Routine Practices are:

- Point of Care Risk Assessment (PCRA) related to client's ILI symptoms and care requirements.
- Hand hygiene
- Respiratory etiquette
- Risk reduction strategies through use of personal protective equipment (PPE), cleaning and disinfection of the environment, laundry, disinfection and sterilization of equipment or single use equipment, client placement
- Healthy workplace practices
- Education of HCW's, clients and families/visitors

Additional Precautions

In addition to routine practices, Contact, Droplet or Airborne precautions may be required in certain situations to prevent transmission of influenza.

- Airborne and Contact Precautions

  Airborne and Contact Precautions for confirmed and suspected influenza patients should be strongly recommended. For those receiving aerosol generating medical procedure (AGMP), airborne and contract precautions are mandatory. Includes wearing a gown, gloves, N95 respirator and eye protection.

Risk Assessment

The key to implementing routine practices is to assess the risk of transmission of microorganisms before any interaction with clients.

To perform a risk assessment, consider the following:

- Do they have a fever?
- Do they have a cough and are not able to follow respiratory etiquette?

- Do they have drainage or leakage? Is it contained?
- What task am I doing?
- What is the risk of exposure to blood, body fluids, mucous membranes, aerosols, broken skin in the tasks I am about to do?
- What is my skill level for this task?
- How cooperative is the client?

Risk Reduction Strategies

Risk reduction strategies are actions taken based on the risk assessment that will assist the health care worker in minimizing his or her exposure. Strategies include use of personal protective equipment (PPE), waste disposal, sharps management, client placement, cleaning and disinfection of equipment, etc. to reduce the risk of transmission of microorganisms.

Source Controls

The importance of applying administrative (e.g. patient flow) and engineering (e.g. glass or acrylic partitions in triage areas) controls as the first strategies in protecting the HCW from exposure to infectious agents in the health care setting cannot be overemphasized. This is especially important for patient care areas/settings where patients appear for initial assessment/investigation before a diagnosis of influenza has been made.

Health care organizations should complete assessments of each area within their acute care facilities including:

- Physical settings (e.g. single rooms, use of partitions, ability to establish 2 meter distance between ILI cases and others),
- The types of patients seen, and
- The types of patient care activities undertaken.

Based on these assessments, organizations need to determine what administrative and engineering controls are needed.

Personal Protective Equipment (PPE)

The following are general guidelines, which should be revised once the mode of transmission of the circulating pandemic influenza virus is understood.

1. Gloves:
    - Gloves are NOT a substitute for hand hygiene.
    - Gloves are task-specific and single-use for the task.
    - Gloves should be available in multiple sizes to provide adequate protection.
    - Gloves should be readily accessible to all health care workers.

- Single use disposable gloves must not be reused or washed.

2. Gowns:
    - The routine use of gowns and aprons is not recommended, gowns are task-specific.
    - Do not re-use gown or apron. They are only fluid resistant, not waterproof.
    - Do not go from client to client wearing the same gown or apron.
    - Take off gloves and gown, and perform hand hygiene.
    - Remove gown before leaving patient room.
3. Masks:
    - HCWs should wear respiratory protection when within 2 meters of a suspect ILI case. The choice between a procedure mask and N95 respirator should be based on the point of care risk assessment. When cases are high, continuous use of respirators should be considered.
    - Proper wearing of a mask includes:
        - Select a mask based on risk assessment and that is appropriate to the activity.
        - Ensure a snug fit over the nose and under the chin.
        - Molding the metal bar over the nose.
        - Change mask if it becomes wet.
        - Do not touch mask while wearing it.
        - Careful removal after use, touching only the elastic ear loops or ties.
        - Discard mask immediately after the task is complete into an appropriate waste receptacle.
        - Hand hygiene must be performed before and after mask removal.
        - Do not allow mask to hang or dangle around the neck. Do not re-use disposable masks.
        - Do not fold the mask or put it in a pocket for later use.
    - Wear a surgical/procedure mask:
        - Symptomatic patient to wear surgical/procedure mask while in public area of health care facility as per respiratory hygiene etiquette.
    - Wear an N95 respirator:
        - If conducting an aerosol-generating medical procedure (AGMP).
        - If the client is known or suspected of an airborne infection i.e. active tuberculosis, varicella or measles, influenza, COVID-19
4. Eye Protection:
    - Choose eye protection that protects the eye from all directions. Eyeglasses do not provide this protection. Wear eye protection (goggles, face shield or mask with visor) over eyeglasses when required.

- Eye protection must be removed immediately after use and discarded into a waste receptacle if disposable. If reusable it should be cleaned after it has been used, following manufacturer's directions.

Cleaning, Disinfection and Sterilization of Patient Care Equipment

Facilities should adhere to the previously established policies and procedures for the cleaning, disinfection and sterilization of client care equipment.

Environmental Control (housekeeping, laundry, waste)

- Facilities should adhere to their established policies and procedures for housekeeping, laundry and waste disposal including regular garbage and biomedical waste.
- Special handling of linen or waste contaminated with secretions from clients suspected or confirmed to have influenza is not required.
- Enhanced cleaning and disinfection of common touch surfaces (handrails, door knobs, and sink/toilet) may be required.
- Strategically place alcohol based hand sanitizers, boxes of tissues and no touch waste receptacles to support hand hygiene and respiratory etiquette.

Healthy Workplace

- Perform proper and frequent hand hygiene.
- **Do not come to work ill.** Management should communicate to staff that there is an expectation that they do not come to work if they have symptoms of influenza-like illness
- Maintain your immunizations. Influenza can be serious or lethal for clients within your facility. It is important to receive yearly influenza vaccinations.
- Ensure patient care equipment used on ill clients are properly cleaned and disinfected with the appropriate technique and materials.

Education

HCW Education and Training

- Infection prevention and control education should be provided to all HCWs as part of their orientation and as ongoing continuing education on a scheduled basis, in addition to just-in-time teaching.

Education of Clients/Family/Visitors

Education should include:

- Hand hygiene
- Respiratory etiquette
- Distancing recommendations (2 meter separation to prevent droplet inhalation)

- Not sharing personal items
- Education about personal protective equipment and other precautions that might be required
- The value of immunization in protecting both oneself and patients/residents
- For family and visitors only: not visiting people in a health care facility when ill with a respiratory infection

Client Placement

Transport /Client Placement

Apply the following principles when making decisions on placement of clients with influenza:

- Ideally, clients with influenza should be placed in single-bed rooms. If single-bed rooms are unavailable, cohort clients ill with **confirmed** influenza, according to the Influenza type, if available. Cohorting patients based on symptoms alone may not be appropriate when a mix of respiratory viruses is circulating.
- In multi-bed rooms a two meter separation between beds is advised to reduce the opportunities for inadvertent sharing of items between clients
- Draw the privacy curtains to minimize opportunities for close contact
- Change PPE and perform hand hygiene between clients in the same room
- Post a sign “airborne/droplet/contact precautions” outside the door/area
- Improve filtration in shared rooms (portable HEPA)

Examples of placement algorithms:

- PHC Patient Placement Guideline - Infection Control
- VCH:
    - http://ipac.vch.ca/Documents/Routine%20Practices/IPAC%20Private%20Room%20Priotrity%20Patient%20Placement%20Algorithm.pdf
    - http://ipac.vch.ca/Documents/Acute%20Resource%20manual/Bed%20Placement%20for%20ILI%20including%20COVID.pdf

Client Transport

- Clients with ILI symptoms should only leave their room for urgent/necessary procedures. Notify the receiving department when the client is expected. The need for the procedure and the scheduling of the time for the procedure need to be considered so that non-influenza clients are not exposed to those with influenza. Symptomatic patients leaving their room should wear a surgical mask.

3.2 Forms and Tools

- Hand hygiene demonstration videos and posters: https://connect.phcnet.ca/quality-safety-value/ipac/routine-practices/hand-hygiene/technique
- Donning/Doffing PPE videos and posters: https://connect.phcnet.ca/quality-safety-value/ipac/routine-practices/personal-protective-equipment-(ppe)

Related Documents

- B-00-07-13084 - Airborne and Contact Precautions - Infection Control
- B-00-07-13079 - Droplet and Contact Precautions - Infection Control
- B-00-07-13087 - Patient Placement Guidelines - Infection Control
- B-00-07-13088 - Personal Protective Equipment (PPE) - Infection Control
- B-00-07-13081 - Point of Care Risk Assessment - IPAC Best Practice Guideline
- B-00-07-13068 - Respiratory Viruses - Influenza, Parainfluenza 1/2/3, Respiratory Syncytial Virus (RSV), Adenovirus & Human Metapneumovirus (hMPV)

References

Vancouver Coastal Health Authority. (2018). The Regional Pandemic Outbreak Response Plan: Chapter 3 Infection and Environmental Control. Available from https://sneezesdiseases.com/assets/uploads/1578342909B2QYPNFREK5cN5EDsglaGYPKRX9A.pdf

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