# University Health Network Policy & Procedure Manual Infection Prevention & Control: Use of Additional Precautions

# 1. Policy

Additional precautions and routine practices as per <u>Routine Practices</u> policy 4.20.001 are used to prevent the transmission of communicable disease in the healthcare setting. Additional precautions should be used based on the point-of-care risk assessment and if indicated by the health information system (HIS).

University Health Network (UHN) uses four types of additional precautions: <u>droplet</u>, <u>contact</u>, <u>contact</u> and <u>droplet plus</u>, and <u>airborne</u>. Additional precautions may be initiated by any healthcare provider, but may be discontinued or modified **only** by Infection Prevention and Control (IPAC) staff.

Initiation of additional precautions is required based upon presenting symptoms where appropriate, e.g. patients with diarrhea to be placed on <u>contact precautions</u>; patients with fevers or coughs to be placed on <u>contact and droplet plus precautions</u>.

Additional precautions signage must be posted on the patient's door if they are in a single room, or in a highly visible location if the patient is in a multi-bedded room. Additional precautions signs may be obtained from nursing units.

Isolation supplies must be kept outside of the patient's room on a clean and organized cart where no other items are kept (no food trays or charts). Supplies include gloves, gowns, eye protection, appropriate masks, alcohol-based hand sanitizer, and hospital-approved disinfectant.

When possible, dedicated equipment, such as stethoscopes, blood pressure cuffs, etc., should be used for patients isolated under <u>contact precautions</u>.

All multi-use equipment (e.g. walkers, wheelchairs, blood pressure cuffs, etc.) brought into the room must be cleaned and disinfected before and after use.

Hand hygiene is required before and after all patient care activities as per <u>Hand Hygiene</u> policy 4.20.002.

Soiled linen is to be placed in clear plastic bags. Linen does not need to be double bagged unless the outer surface of the bag is torn or soiled. (Refer to <u>Handling Soiled</u> <u>Linen</u> policy 4.20.008.)

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Regular grey garbage bags are used for waste from patients under additional precautions. Double bagging is not required. (Refer to <u>Disposal of Biomedical Waste</u> policy 1.120.005.)

**Note:** Information about additional precautions is available for patients and visitors. See <u>Preventing the Spread of Infections pamphlet</u> (Form D-5531).

### 1.1 Contact Precautions

Patients on <u>contact</u> precautions must be accommodated in a single room with a dedicated bathroom. If a single room is not available, consultation with IPAC is required.

Staff and visitors must perform hand hygiene and wear gowns and gloves when entering the patient's room, delivering patient care, or when touching either the patient or the patient's environment.

Staff and visitors must also wear a procedure mask when entering the room of a patient colonized or infected with methicillin-resistant *Staphylococcus aureus* (MRSA). (Refer to <u>Methicillin-resistant Staphylococcus Aureus (MRSA)</u> policy 4.60.015.)

Brown "Contact" signage must be placed on the door of the patient room.

A maximum 24-hour supply of patient care supplies (e.g. sterile dressings, sterile solutions, etc.) may be stored in the patient room and must be dedicated to the patient. When the patient is discharged or transferred, these items must be cleaned with a hospital-approved disinfectant and sent along with the patient, or they must be discarded.

Unopened items encased in plastic must also be cleaned with the hospital-approved disinfectant.

After patient discharge, the entire room must be cleaned as per UHN Housekeeping cleaning standards.

Patients on contact precautions are not required to wear PPE while being transported.

Staff assisting in transportation are not required to wear PPE when transporting patients. (Refer to <u>Transportation of Patients Requiring Additional Precautions</u> policy 4.30.004)

# **1.2 Droplet Precautions**

A single room is preferred; however, if this is not possible, there must be at least two meters separation between patients.

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Curtains must be drawn around the bed of the patient who is under droplet precautions.

Staff and visitors must wear gloves, gown, a surgical mask, and eye protection (goggles or face shield) when within 2 metres of the patient.

Green "**Droplet**" signage must be placed on the door for single rooms, and posted on the door and on the curtain in a highly visible location in semi-private rooms, indicating the patient's bed number.

Droplet precautions should be used for procedures likely to generate droplets. Procedures likely to generate droplets include: intubation without sedation or paralysis, continuous positive airway pressure (CPAP) or bi-level positive airway pressure (BiPAP) for acute respiratory failure, and nebulization of medication (nebulized therapy).

- **Note:** Use droplet precautions for patients on chronic CPAP/BiPAP if they have failed respiratory illness (FRI) screening or if a respiratory illness is being ruled out.
- **Note:** If COVID-19 is being ruled out, use contact and droplet plus precautions.
- **Note:** If a patient is undergoing a high risk aerosol generating medical procedure, they must be placed on <u>airborne/droplet/contact precautions</u>.

Patients on droplet precautions must wear a surgical mask when being transported. If the patient cannot tolerate a surgical mask, consultation with IPAC is required.

Staff assisting in transportation should not wear PPE when transporting patients. (Refer to <u>Transportation of Patients Requiring Additional Precautions</u> policy 4.30.004.)

After patient discharge, the entire room must be cleaned as per UHN Housekeeping cleaning standards.

Unopened items encased in plastic may also be cleaned with the hospital-approved disinfectant.

### 1.2.1 Nasopharyngeal Swabs

If a nasopharyngeal (NP) swab is ordered, patients must be placed on <u>droplet</u> precautions.

Note: If COVID-19 is being ruled out, use contact and droplet plus precautions.

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### 1.2.2 Referred out Nasopharyngeal Swabs

NP swabs may be referred out to the Public Health Ontario Laboratory (PHOL) for extended testing.

IPAC will regularly assess patients on <u>droplet</u> precautions for symptom resolution and the need for droplet precautions. Requirements for discontinuing precautions for negative NP swabs may differ depending on the patient population, symptomatology and/or in outbreak situations.

## 1.3 Contact and Droplet Plus Precautions

Patients on <u>contact and droplet plus</u> precautions must be accommodated in a single room with a dedicated bathroom. If a single room is not available, consultation with IPAC is required.

Staff must perform hand hygiene, wear a fit-tested N95 respirator, eye protection, gown, and gloves when entering the patient's room, delivering patient care, or when touching either the patient or the patient's environment.

Visitors must perform hand hygiene, wear a N95 respirator or well-fitting procedure mask, eye protection, gown, and gloves when entering the patient's room, delivering patient care, or when touching either the patient or the patient's environment.

Pink "Contact and Droplet Plus" signage must be placed on the door of the patient room.

A maximum 24-hour supply of patient care supplies (e.g. sterile dressings, sterile solutions, etc.) may be stored in the patient room and must be dedicated to the patient. When the patient is discharged or transferred, these items can be cleaned with a hospital-approved disinfectant and sent along with the patient, or they must be discarded.

Unopened items encased in plastic must also be cleaned with the hospital-approved disinfectant.

After patient discharge, the entire room must be cleaned as per UHN Housekeeping cleaning standards.

Patients on contact and droplet plus precautions are required to wear a clean surgical mask over the mouth and nose, if tolerated, while being transported.

Staff assisting in transportation of the patient must wear appropriate PPE (gown, fittested N95 respirator, eye protection, and gloves) when transporting patients on contact

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and droplet plus precautions. (Refer to <u>Transportation of Patients Requiring Additional</u> <u>Precautions</u> policy 4.30.004.)

### **1.4 Airborne Precautions**

For patients requiring <u>airborne</u> isolation, a single, negative pressure isolation room is required.

Staff entering these rooms must wear a fit-tested N95 respirator. Visitors entering these rooms must wear a well-fitting procedure mask or N95 respirator.

**Note:** Donning and doffing PPE can be performed safely in the hallway outside the anteroom of a protective environment room (e.g. PMH 14-415) or airborne isolation room if necessary. Proper hand hygiene must be performed at all stages of the donning and doffing process. (Refer to <u>Hand Hygiene</u> policy 4.20.002).

Blue "Airborne" signage is to be placed on the door.

### 1.4.1 Negative Pressure Isolation Room

Negative pressure must be functioning properly. (Refer to <u>Monitoring of Airborne</u> <u>Infection Isolation Rooms</u> policy 4.70.008

The unit is required to notify Facilities, Management, Planning, Redevelopment and Operations (FM-PRO) to test the functionality of the negative pressure room as soon as the need arises. Every effort must be made to test the negative pressure capability of the room **prior** to placing patient in room.

FM-PRO must check the negative pressure within 24 hours from notification to verify the functionality.

If the negative pressure fails, another negative pressure room must be sought out through the Clinical Utilization (Flow) coordinator/administrator-on-site (if after hours), including off-unit if appropriate to do so.

In the event a functioning negative pressure room cannot be found, contact IPAC immediately.

All doors must remain closed to ensure negative pressure relative to the hallway.

### 1.4.2 Use of HEPA Units

<u>IPAC staff</u> must be contacted immediately if a negative pressure room is not available and a high-efficiency particulate air (HEPA) unit is being considered.

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**Note:** The use of HEPA units are a temporary measure to clean the air and are **not equivalent** to a functioning negative pressure room.

The patient must be transferred to a functioning negative pressure room as soon as possible to ensure appropriate ventilation with negative pressure.

### 1.4.3 Patients on Airborne Isolation Requiring Surgical Procedures

<u>IPAC staff</u> must be contacted when patients on <u>airborne</u> precautions require surgical procedures.

It is recommended that elective procedures for patients on airborne precautions be postponed. If this is not possible, every effort must be made to book the patient's procedure at the end of the day, if safe to do so.

Prior to transportation, unit staff must communicate to the operating room (OR) and the Post-Anesthetic Care Unit (PACU) that the patient requires airborne precautions. (Refer to <u>Transportation of Patients Requiring Additional Precautions</u> policy 4.30.004.)

Patients on airborne precautions must wear a surgical mask on transport and be taken directly into the OR suite. Patients must not be allowed to wait in the general OR holding area.

The doors must remain closed during the procedure and during recovery.

Staff involved in the surgical procedure and traffic into and out of the surgical suite must be limited.

All staff involved in operative procedures must wear a fit-tested N95 respirator.

Patients must be placed into airborne precautions (negative-pressure room with use of N95 respirators) during the recovery phase in PACU, or can remain in the OR suite for recovery.

At the end of the post-operative recovery phase, PACU/hospital staff must communicate to the receiving department/unit that the patient will be returning and requires airborne precautions.

Upon completion of surgery, the OR must be empty for 30 minutes, with all doors closed, in order for an appropriate number of air exchanges to occur.

In the diagnostic areas, surfaces in direct contact with the patient and, any wheelchair/ equipment used to transport the patient must be disinfected directly after use with a hospital-approved disinfectant.

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**Note**: A HEPA unit is **not** recommended as it disrupts the positive air flow in areas with positive pressure.

# 1.4.4 Patients on Airborne Isolation Requiring Non-Surgical Procedures (e.g. Cath Lab Procedures, Interventional Radiology)

Patients requiring procedures (e.g. Cath Lab) must be taken directly into the procedure room and wear a surgical mask on transport.

**Note:** A HEPA unit is **not** recommended as it disrupts the positive air flow in areas with positive pressure (e.g. Cath Lab procedure room, Interventional Radiology (IR)).

Patients that remain in a department with positive pressure (e.g. Cath Lab or IR) must be moved to a single room with negative pressure or HEPA unit for the duration of the recovery period.

Upon completion of procedure, the room must be empty for 30 minutes, with all doors closed, in order for an appropriate number of air exchanges to occur.

## 1.5 Aerosol Generating Medical Procedures

During aerosol generating medical procedures (AGMP) there is a greater potential of aerosolization of microorganisms and greater caution is required to protect healthcare workers. To reduce transmission during AGMP, the number of personnel present in the room should be minimized and all personnel must wear appropriate PPE. AGMP include:

### • High risk procedures:

- a. bronchoscopy
- b. non-elective Intubation (excluding the OR; including ED and ICU)
- Low risk procedures:
  - a. acute inpatient non-invasive positive pressure ventilation (e.g. CPAP/BiPAP)
  - b. high flow nasal cannula (HFNC)
  - c. open airway suctioning and tracheostomy change/insertion
  - d. sputum induction

Refer to <u>IPAC Recommendations for Management of Aerosol Generating Medical</u> <u>Procedures</u> for additional details.

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### 1.5.1 Bronchoscopy & Intubation Procedures

Bronchoscopy and intubation procedures may generate aerosols; <u>airborne/droplet/</u> <u>contact</u> precautions must be followed.

### • Bronchoscopy:

- a. Aerosolization of potentially infectious particles is highly likely to occur during bronchoscopy; therefore, this procedure is to be performed in a single room under negative pressure with the door closed.
- b. All staff in the room must wear a fit-tested N95 respirator, gowns, gloves, and eye protection at the time the bronchoscopy is being carried out and 30 minutes after to allow for the appropriate number of air exchanges to occur. (Refer to <u>Routine Practices</u> policy 4.20.001.).
- c. In **intensive care unit settings only**, if a negative pressure room is not available or the patient is too unstable to move, the bronchoscopy may be performed in a single room with the door closed.
- d. <u>IPAC staff</u> must be contacted immediately if use of a HEPA unit is being considered.
- e. Any staff entering the room within 30 minutes of completion of the bronchoscopy must wear a fit-tested N95 respirator.
- f. Bronchoscopy must never be performed in a multi-bedded room.

**Note:** If facing a situation where bronchoscopy is being considered in a multibedded room, IPAC must be contacted in advance.

- Intubation (excluding the OR; including ED and ICU):
  - a. Patients who are not sedated or paralyzed during intubation are likely to generate aerosols.
  - b. If possible, patients requiring intubation should be moved to a single room under negative pressure with the door closed before the intubation is performed; however, it is appreciated that these situations are uncommon and that most intubations outside of the OR are urgent/emergent.
  - c. If the intubation is urgent/emergent or the patient is too unstable to move, the intubation may be performed wherever the patient is located.
  - d. If the patient is in a single room without negative pressure ventilation, the

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door must be closed. If the patient is in a multi-bedded room, the curtains must be drawn.

- e. All staff involved in the intubation must wear a fit-tested N95 respirator, gowns, gloves, and eye protection during the procedure and 30 minutes after. (Refer to <u>Routine Practices</u> policy 4.20.001.)
- f. After the patient has been moved, the room must be kept empty with all doors closed for at least 30 minutes to allow for an adequate number of air exchanges before admitting a new patient. Any staff, such as Environmental Services, entering the room during this time to clean must wear an N95 respirator and keep the door closed.
- g. Unopened items encased in plastic may also be cleaned with the hospitalapproved disinfectant.
- Extubation (excluding the OR; including ED and ICU):
  - a. Extubation should occur in a single room.
  - b. If the extubation is urgent/emergent or the patient is too unstable to move, it may be performed wherever the patient is located.
  - c. If the patient is in a single room without negative pressure ventilation, the door must be closed. If the patient is in a multi-bedded room, the curtains must be drawn.
  - d. All staff involved in the extubation must wear a fit-tested N95 respirator, gowns, gloves and eye protection during the procedure and 30 minutes after (Refer to <u>Routine Practices</u> policy 4.20.001.)

# 1.6 Ambulating Patients Outside of Room

Patients/clients on isolation precautions **may not** leave their rooms without approval from IPAC. Nurses must call IPAC to receive approval for each patient.

Note: Patients on <u>airborne</u> precautions are **not** allowed to ambulate outside of the room.

If patients must go to urgent tests or appointments on airborne precautions, they must wear a surgical mask when being transported. If the patient cannot tolerate a surgical mask, consultation with IPAC is required.

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**Note:** There is no benefit to having the patient wear an N95 respirator as they may be less likely to wear it properly.

Staff assisting in transportation must wear a fit-tested N95 respirator when transporting patients on airborne precautions. (Refer to <u>Transportation of Patients Requiring</u> Additional Precautions policy 4.30.004.)

# 1.7 Ambulating Patients Outside of Room in Rehabilitation Settings

Patients/clients at Toronto Rehab sites on contact precautions for methicillin-resistant *Staphylococcus aureus* (MRSA) or carbapenemase producing organisms (CPO) may have limited access to therapy outside of patient rooms. (Refer to <u>Methicillin-resistant</u> <u>Staphylococcus Aureus (MRSA)</u> policy 4.60.015 and <u>Carbapenemase Producing</u> <u>Organisms</u> policy 4.60.028.)

# 1.8 Meal Delivery

Staff delivering meals must wear appropriate personal protective equipment. Meal trays are to be delivered and handled in accordance with <u>Dishes in Isolation Rooms</u> policy 4.30.003.

Disposable dishes are not necessary. Meal trays must not be stored on an isolation cart.

# 2. Definitions

**Airborne:** Infection is spread by small droplets (droplet nuclei,) that result from the evaporation of larger respiratory <u>droplets</u> or in dust particles, which remain suspended in the air for long periods. Transmission of airborne infections occurs over long distances. Examples of infections where airborne transmission occurs are:

- measles
- tuberculosis
- varicella-zoster (chickenpox, disseminated shingles)

**Contact:** Infection is spread through direct physical contact between individuals or through indirect contact by way of contaminated hands or gloves, contaminated instruments, or other contaminated objects in the patient's immediate environment. Examples of infections that are spread mainly through the contact route are:

- MRSA
- C. difficile and other diarrheal illnesses

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- CPO
- Candida auris

**Contact and droplet plus:** Infection is spread through respiratory droplets direct generated through coughing, sneezing, speaking, and physical contact between individuals or through indirect contact by way of contaminated hands or gloves, contaminated instruments, or other contaminated objects in the patient's immediate environment. Examples of infections are:

- COVID
- MPox

**Droplet:** Infection is spread by larger respiratory droplets generated through coughing, sneezing, speaking, etc. Larger droplets are carried short distances (1 to 2 metres) through the air and are deposited on mucous membranes and surfaces. Examples of infections where droplets are believed to the most important route of spread are:

- influenza
- community-acquired pneumonia
- respiratory syncytial virus (RSV)

# 3. References

- Ontario Agency for Health Protection and Promotion (Public health Ontario). Interim infection prevention and control measures based on respiratory virus transmission risks in health care settings. 1st revision. Toronto, ON: King's Printer for Ontario; 2023. Retrieved from: <u>https://www.publichealthontario.ca/-</u> /media/Documents/l/2023/ipac-measures-transmission-risks-technical-brief.pdf
- Ontario. Ministry of Health; Ministry of Long-Term Care. COVID-19 health sector guidance. Retrieved from: <u>https://www.ontario.ca/page/covid-19-health-sector-guidance#health</u>
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