


NTHSSA-WIDE POLICY	
Title: Proper Selection and Use of Personal Protective Equipment (PPE).	Policy Number: 12-44-V1
Applicable Domain: Infection Prevention and Control	
Additional Domain(s): NA	
Effective Date: 16/03/2020	Next Review Date: 16/03/2023
Issuing Authority: NTHSSA CEO	Date Approved: 16/03/2020
Accreditation Canada Applicable Standard:  5.4 and 7.3 Infection Prevention and Control	

### GUIDING PRINCIPLE:

To help reduce exposure and transmission of potentially infectious organisms, the Northwest Territories Health and Social Services Authority (NTHSSA) will have **Personal Protective Equipment (PPE)** available, accessible and policies in place for proper selection and use (donning and doffing) of PPE for infection prevention and control (IPAC) purposes.

### PURPOSE/RATIONALE:

Proper selection and use of PPE is important in reducing the risk of contamination and transmission of potentially infectious materials. Improper selection and/or use can increase the risk of transmission/contamination, and endanger patients/clients and staff.

Personal Protective Equipment (PPE), (for the purposes of infection prevention and control) includes masks or N95 respirators, eye protection, gowns, and gloves. This document describes each of these items and the proper **donning** and **doffing** procedures.

### DEFINITIONS:

**Additional Precautions:** Precautions (i.e., Contact Precautions, Droplet Precautions, and Airborne Precautions) which are necessary in addition to routine practices for certain pathogens or clinical presentations. These precautions are based on the method of transmission (e.g., contact, droplet, airborne).

**Cytotoxic Precautions:** Precautions put in place to provide protection from cytotoxic medications. Cytotoxic medications refer to drugs determined to have

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significant risk from occupational exposure. This group includes drugs used in the active treatment of cancer/neoplasm (antineoplastic drugs) and some other drugs NOT used in the active treatment of cancer/neoplasm but require similar handling procedures and training as antineoplastic cytotoxic drugs. Refer to Occupational Health and Safety Policies for management. (See NTHSSA- STH- Procedure Chemotherapy and Biotherapy Agents: Administration, Safe Handling and Disposal; NTHSSA-STH- Procedure Intravenous Chemotherapy and Biotherapy Agents: Administration, Safe Handling and Disposal; NTHSSA- STH- Policy Hazardous Medication Spill Clean-up)

**Doff:** To remove personal protective equipment.

**Don:** To put on personal protective equipment.

**Fit-Test:** A qualitative or quantitative method to evaluate the fit of a specific make, model, and size of respirator on an individual. Fit-testing must be done periodically, at least every two years and whenever there is a change in respirator face piece or the user's physical condition which could affect the respirator fit.

**N95 Respirator (mask):** A personal protective device worn on the face and covers the wearer's nose and mouth to reduce the risk of inhaling airborne particles. A NIOSH-certified N95 respirator filters particles one micron in size, has 95% filter efficiency and provides a tight facial seal with less than 10% leak. Health care providers are responsible for getting fit-tested for N95 respirators at least every 2 years and more frequently if required under NTHSSA Occupational Health and Safety (OHS) Policy. (Refer to appropriate OHS policy on fit-testing)

**Personal Protective Equipment (PPE):** Clothing or equipment worn by staff or provided to patients/clients for personal protection against hazards to prevent contamination of skin, mucous membranes or clothing in order to prevent the transmission from patient-to-patient.

**Routine Practices and/or Precautions:** are based on the premise that all patients/clients are potentially infectious, even when asymptomatic, and the same safe standards of practice should be used routinely with all patients/clients in all health care areas.

**Surgical/Procedure Mask** - Type of mask designed to provide protection from large particles/droplets. Mask with integrated visor can be used in lieu of a surgical mask and separate eye protection.

**SCOPE/APPLICABILITY:**

All NTHSSA staff working in healthcare environments or providing healthcare services.

## **PROCEDURE:**

The decision on whether or not PPE is required is based on a **Routine Practices** point of care risk assessment (PCRA) or when **Additional Precautions** are indicated.

Disposable PPE must not be reused. PPE should be put on immediately before it is needed, and taken off and disposed of immediately after the task for which it was required. The same PPE should never be worn between patients/clients.

### **Gloves:**

Gloves are not a substitute for hand hygiene (HH). HH must be performed, and hands completely dry, before and after gloves are used. Unless there is an indication for Additional Precautions, gloves are not required for direct contact when there is no risk of exposure to blood or body fluids, and/or skin is intact and there is no evidence of a rash.

Double Gloving is not recommended for routine use. It may be indicated where there is a high risk of glove damage and a second glove may offer some protection until gloves can be replaced, or in some specific disease protocols (e.g. viral hemorrhagic fever [e.g. Ebola]).

Gloves are not to be washed or reused.

Gloves must be changed:

- Between every patient
- Between different procedures on the same patient when moving from a contaminated body site to a clean body site
- During lengthy procedures or if leak or a tear is suspected
- When contaminated after touching environmental surfaces and before touching a clean surface or patient

Hand hygiene must be performed after gloves are removed and before donning a new pair of gloves.

The correct size and type of glove is an important consideration.

Examination Gloves (non-sterile) are indicated:

- In all interactions when caring for patients on Additional Precautions, such as Contact and/ or Contact/Droplet and/or Airborne/Droplet/Contact

- When there is a risk of exposure to blood or body fluids either indirectly (e.g. when cleaning equipment, handling waste, cleaning spills), or direct contact when providing patient care (e.g. drawing blood, inserting intra venous catheters, suctioning)
- During care procedures when a healthcare provider and/or patient/client has non-intact skin or rash\*

**\*Note:** Staff having skin integrity issues with their hands must contact the Occupational Health and Safety Department for early assessment.

Sterile Gloves are indicated:

- For any surgical procedure, vaginal delivery, invasive radiological procedures, performing some vascular access procedures (e.g. inserting central lines), other invasive procedures performed at the bedside (e.g. paracentesis, thoracentesis, bone marrow sampling, lumbar puncture, and/or when required in patient care policies)
- Double gloving is recommended for surgical and invasive procedures
- When preparing total parenteral nutrition or chemotherapeutic agents (**Cytotoxic precautions** may be required for handling chemotherapeutic agents. See NTHSSA-STH- Procedure Chemotherapy and Biotherapy Agents: Administration, Safe Handling and Disposal; NTHSSA-STH- Procedure Intravenous Chemotherapy and Biotherapy Agents: Administration, Safe Handling and Disposal; NTHSSA-STH- Policy Hazardous Medication Spill Clean-up)

### **Gowns/Plastic Apron:**

Gowns (disposable or reusable) and/or plastic aprons are to be worn:

- When a procedure is likely to generate splashes or sprays of secretions, excretions, blood, and/or body fluids
- When stipulated if Additional Precautions are in place

Gowns may be one time use (disposed in the garbage after use) or reusable (disposed in the linen container after each use).

### **Masks and Eye Protection:**

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Masks and eye protection are worn to protect the mucous membranes of the mouth, nose, and eyes from exposure to microorganisms. For IPAC purposes any situation requiring a mask also requires eye protection, and vice versa. Masks and eye protection may be provided by separate PPE or combined PPE (e.g. mask with integrated visor).

The exception being surgical masks alone (without eye protection) can be used in instances when additional (droplet/contact or airborne/droplet/contact) precautions for infection control issues are NOT in place (e.g. changing dressings).

All masks are to be securely fastened to cover the nose and mouth and fit snugly under the chin and over the bridge of the nose.

Each health care provider has a responsibility to ensure a proper seal. Additionally routine Fit-testing is required when **N95 respirators** are used. Refer to Occupational Health and Safety for questions related to fit-testing.

Masks are to be used only once, and then discarded appropriately. They are not to be lowered around the neck or carried in the pocket for reuse.

HH must be performed after removing a mask.

### **Masks with integrated eye protection:**

Mask with an integrated visor provides mouth, nose, and eye protection from large particles/droplets.

A mask with an integrated visor is to be used by health care providers:

- Within two meters of a person coughing, sneezing, or exhibiting other respiratory symptoms or when body substances are likely to splash mucous membranes
- When performing droplet/aerosol generating procedures

Patients/clients exhibiting respiratory symptoms may be asked to wear a mask. This is to reduce droplet spread and transmission of infections.

### **Other Masks:**

Separate eye protection must be worn when the following masks are indicated for Routine and Additional Precautions:

1. N95 respirator must be used by health care providers when:

- An airborne infection (e.g. tuberculosis [TB]) is suspected or confirmed

- Performing diagnostic bronchoscopy, sputum inducing procedures and/or attending recovery from diagnostic bronchoscopy
- Autopsy examination

## 2. Surgical/Procedure Mask

A mask alone (i.e. without eye protection) is only acceptable when being worn in instances when Additional (droplet/contact, contact, and airborne/droplet/contact) Precautions for infection prevention and control issues are NOT in place (e.g. changing dressings, dealing with odor/dust issues).

### **Eye Protection:**

Eye protection is worn to protect the eyes from microorganisms. For Infection Prevention and Control purposes, in all situations where eye protection is required, masks are also required to protect the mouth and nose.

Eye protection must be removed immediately after the task for which it was used and discarded into the waste container or placed in an appropriate receptacle for cleaning (if deemed reusable).

Prescription eye glasses are NOT ACCEPTABLE as eye protection.

Eye protection may be provided:

- With a mask with integrated visor, which is a one piece unit designed to protect the mouth, nose, and eyes.
- Safety glasses, safety goggles, and face shields – for IPAC purposes these must be worn in addition to an N95 mask, high-efficiency filtration or surgical mask.

### **Donning and Doffing PPE** (i.e. putting on and taking off PPE)

In addition to proper selection and use of PPE, proper donning and doffing, are crucial to protect the wearer and to prevent transmission of organisms.

PPE should be put on prior to entering a patient room or care space, and removed when exiting a patient room or care space; and should be done at least 2 meters from the patient. If an N95 is required and an anteroom is present, the N95 mask should be removed in the anteroom.

PPE donning and doffing should be performed in the order indicated below:

**Donning PPE:** See Figure 1.

1. Perform hand hygiene
2. Gown, tied securely at neck and back
3. Mask with integrated visor, or if separate mask, e.g. properly fit tested N95 respirator, perform fit- check/seal check
4. Perform hand hygiene again if there is a risk hands have become contaminated during steps 1 to 3
5. Eye protection
6. Gloves, select correct size, cover cuffs of gown with gloves

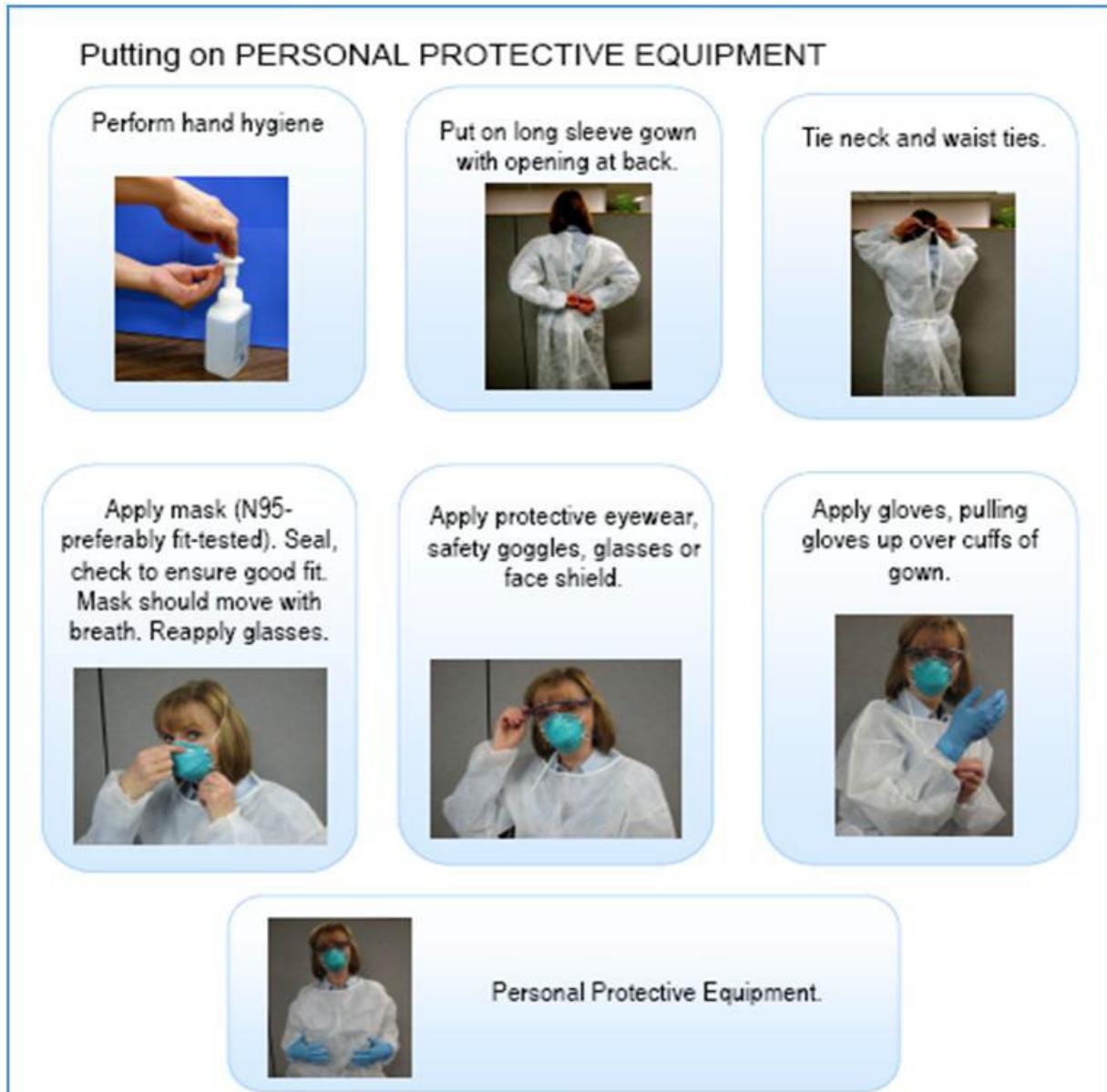


Figure 1 Donning Personal Protective Equipment

**Doffing PPE:** See Figure 2a and 2b.

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1. PPE is to be removed at the doorway at the exit to the room, at least 2 meters away from the patient, or in the anteroom if one is present
2. N95 masks, if used, should not be removed until the individual is outside of the room, if no anteroom is present
3. Remove gloves using the principle 'glove-to-glove and skin-to-skin', turning gloves inside out on each other as removed and discard in garbage
4. Untie gown at both the back and the neck. By gently grasping the tags at the shoulder pull the gown forward and down, keeping close to the body and turning the gown inside out, taking care not to contaminate clothing. Discard in proper receptacle.
5. Perform hand hygiene before touching face to remove mask and eye protection
6. Remove eye protection and mask:
  - Gently remove separate eye protection by grasping sides, removing down and away from the face.
  - Masks and masks with integrated visor should be removed by grasping the elastics at back of the ears (or elastics at the back of the head depending on the mask design) lifting the straps up and over to the front of the head, and removing the mask and visor down and away from the face.
7. Avoid touching the front of the PPE, pushing it up or over the top of the head or allowing it to hang around the neck.
8. Discard in proper receptacle. Perform hand hygiene after exiting the room, if PPE removal is in an anteroom; perform HH after exiting the anteroom.

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Figure 2a. Doffing personal protective equipment



Figure 2b. Doffing personal protective equipment

**PERFORMANCE MEASURES:**

Proper selection and use of PPE can be audited using the PPE audit tool. See Appendix A and B.

Staff education related to proper selection and use can be tracked by completion of the mandatory IPAC orientation education and training modules.

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### **CROSS-REFERENCES:**

NTHSSA Policy IPAC Orientation Education and Training  
NTHSSA-STH- Procedure Chemotherapy and Biotherapy Agents: Administration, Safe Handling and Disposal  
NTHSSA-STH- Procedure Intravenous Chemotherapy and Biotherapy Agents: Administration, Safe Handling and Disposal  
NTHSSA- STH- Policy Hazardous Medication Spill Clean-up

### **ATTACHMENTS:**

- Guideline for Using the Personal Protective Equipment (PPE) Audit Tool
- Employee Personal Protective Equipment (PPE) Audit

### **REFERENCES:**

Government of the Northwest Territories. (2012). *NWT infection prevention and control manual*. Retrieved from <https://www.hss.gov.nt.ca/professionals/sites/professionals/files/resources/infection-control-manual.pdf>

Provincial Infectious Diseases Advisory Committee (PIDAC). (2012). *Routine practices and additional precautions in all health care settings* (3<sup>rd</sup> ed.). Retrieved from [http://www.publichealthontario.ca/en/eRepository/RPAP\\_All\\_HealthCare\\_Settings\\_Eng2012.pdf](http://www.publichealthontario.ca/en/eRepository/RPAP_All_HealthCare_Settings_Eng2012.pdf)

### **APPROVAL:**

March 16, 2020

\_\_\_\_\_  
Date



\_\_\_\_\_  
Sue Cullen  
NTHSSA Chief Executive Officer

## Appendix A

### **Guideline for Using the Personal Protective Equipment (PPE) Audit Tool**

#### **Purpose:**

The personal protective equipment (PPE) audit tool has been designed to highlight and reinforce the important aspects of PPE selection and use.

#### **Usage:**

There are a number of ways the tool can be used.

- It can be used to observe compliance in 'real life' scenarios. That is, the observer could follow a care provider during the course of regular duties and use the tool to record performance findings and provide feedback.
- The tool can be used as part of education related to the use of PPE, again there are variation on how this could be done.
  - The observer can present a scenario to the staff being trained e.g. "You are providing care to a patient who is on airborne precautions. Show me how you would proceed?" The tool is used to record observations and provide feedback.
  - The observer could simply ask a staff member to demonstrate how they would don and doff full PPE, and use to the tool to record observations and provide feedback.
  - Two staff members could work together, with one member donning and then doffing PPE and the other observing using the tool as a guide to ensure the important aspects are covered.

#### **Instructions for Using the Audit Tool:**

- Record the date and time that the tool is being used.
- Indicate the name of the observer.
- Circle or write in the type of health care worker being observed.
- If used in a 'real life' or 'scenario' situation, and circle the type of precautions in place.
- Follow through the process and mark the form accordingly.
  - Yes, if the person donning/doffing the PPE completed that step correctly
  - No, if the person donning/doffing the PPE missed that step
  - Not observed – use this in instances such as, N95 was not necessary in the real life situation or scenario session
  - Comments – a space to make other comments e.g. correct size gloves were not available, staff member was not fit tested etc.

Review the finding after the exercise and address any steps which may have been missed or misunderstood.

Appendix B

**Employee Personal Protective Equipment (PPE) Audit**

Region: \_\_\_\_\_

Date: \_\_\_\_\_ Time: \_\_\_\_\_ Observer: \_\_\_\_\_

Circle or print in the space provided the appropriate provider and the type of precautions required:

Health Care Worker (HCW) Type: 1 = Physician; 2 = Nursing (RN, LPN, Nurse’s Aide), 3 = Other Staff \_\_\_\_\_

Real life or teaching scenario \_\_\_\_\_

Type of Precautions: RP = Routine Practices; A = Airborne Precautions; C = Contact Precautions; DC = Droplet + Contact Precautions; ADC = Airborne, Droplet, & Contact

Item	Compliance			Comments
	Y	N	Not observed	
<b>Donning (putting on PPE) The key concept in donning is that the correct PPE is selected and is worn correctly</b>				
Signage is in place to indicate if additional precautions are required				
There is an adequate stock of accessible PPE				
The appropriate PPE was selected for the care being provided and the precautions in place				
Extra items on person (rings, watch, etc.) are removed				
Long hair is off of face and neck				
Hand hygiene was performed immediately prior to donning PPE				
PPE was donned immediately before entering the patient care space				
PPE was applied in proper sequence, i.e. perform hand hygiene → gown→ mask/respirator → eye protection→ gloves				
Proper sized gown is selected. Gown should covers from neck to knees and back covered				
Gown tied securely at neck and waist				
Correct mask is selected for the situation e.g. fit tested N95, if Airborne Precautions are required				
Mask is secured on head with ties or ear loops				

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Item	Compliance			Comments
	Y	N	Not observed	
Mask is to adjusted ensure proper fit				
Eye protection positioned properly over the eyes				
If a face shield is used, the band is placed around the head with foam perpendicular to the forehead				
Correct size gloves are selected				
Gloves extend over cuffs of gown				
<b>During the Task</b>				
Gloved hands are kept away from the face				
Once the task is underway, PPE is not touched or adjusted				
Gloves are removed if they become torn or ripped, and hand hygiene is performed before putting on new gloves				
<b>Doffing (Taking off PPE) The key concept when doffing is to reduce contamination during the process.</b>				
PPE is removed as soon as the task is complete				
PPE is removed in sequence: gloves → gown→ hand hygiene→ eye protection→ mask/respirator→ hand hygiene				
Gloves are removed using correct technique, i.e. Grasp outside edge of glove near the wrist and peel away from the hand, turning the glove inside-out. Hold removed glove in opposite (still gloved) hand. Slide an ungloved finger or thumb under the wrist of the remaining glove.				
Gown removed correctly (i.e. starting at the neck tie first, the outer, 'contaminated', side of the gown is pulled forward and turned inward, rolled off the arms into a bundle, then discarded immediately in a manner that minimizes air disturbances)				
Perform hand hygiene				

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Item	Compliance			Comments
	Y	N	Not observed	
Eye protection is handled only by headband or ear pieces, and carefully pull away from face. The front of goggles/face shield are considered to be contaminated.				
Surgical Mask/N95 mask. Untie bottom tie then top tie or grasp straps or ear loops. Pull forward off the head, bending forward to allow mask/respirator to fall away from the face. Discard immediately into waste receptacle.				
Perform hand hygiene				
PPE is removed at the door before leaving the room, or in the anteroom (if available)				
For airborne infection isolation rooms, the N95 respirator is removed outside the room, after the door has been closed				

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