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### Policy Applies to:

Mercy Hospital employees, Credentialed Specialists, students, patients, visitors, and contractors will be supported to meet policy requirements.

#### **Related Standards:**

- Ngā Paerewa Health and Disability Services Standard NZS 8134.3:2021 sections 5.2.3, 5.2.4
- Health and Safety at Work Act, 2015
- EQuIP 3.1.2 Health and Safety
- EQuIP 1.5.2 Infection Control

#### Rationale:

This policy defines the standards and processes associated with the use of personal protective equipment within the context of infection prevention and control. Personal protective equipment (PPE) provides a barrier that reduces the opportunity for transmission of pathogens within a healthcare setting and provides protection for the healthcare worker.

Requirements for personal protective equipment outside of those used for infection control hazards do not come under this procedure (Refer to Personal Protective Equipment policy).

#### **Cultural Considerations:**

This policy has been reviewed by the Māori and Pasifika cultural committees. No cultural considerations were identified. In the instance where a staff member wears items in addition to the provided uniform (for uniformed staff) for cultural or religious reasons, care should be taken to minimise contamination of the item.

### **Definitions:**

**Personal protective equipment (PPE)** PPE stands for Personal Protective Equipment, and it refers to specialized clothing or equipment worn by individuals to protect themselves from various hazards, including infection. In the context of infection prevention, PPE is crucial for healthcare workers, first responders, and others who may be exposed to infectious agents.

Common PPE for infection prevention includes:

- 1. **Gloves**: Disposable gloves create a barrier between the wearer's hands and potentially infectious materials. They are essential for preventing the spread of germs through contact.
- 2. **Masks**: Face masks, such as surgical masks or respirators, are designed to protect the respiratory system by filtering out airborne particles. They are particularly important in preventing the spread of respiratory infections.



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- 3. **Gowns**: Disposable gowns or protective clothing cover the body and clothing of the wearer to prevent contamination. They are often used in healthcare settings to protect against splashes and sprays.
- 4. **Eye Protection**: Goggles or face shields provide a barrier to protect the eyes from splashes, sprays, and respiratory droplets that may contain infectious agents.
- 5. **Hats, Caps, or Hoods**: Head coverings are used to protect the hair and scalp from contamination, particularly in healthcare settings.
- 6. **Footwear Covers**: Disposable shoe covers, also known as booties, help prevent the spread of contaminants from shoes.

The specific type of PPE required depends on the nature of the infectious agent, the mode of transmission, and the tasks being performed. Proper training on the correct use, removal, and disposal of PPE is essential to ensure its effectiveness in preventing the transmission of infections.

**Transmission-based precautions** Transmission-based precautions are infection control measures implemented to prevent the spread of specific infectious agents that are known or suspected to be transmitted by particular routes. These precautions are applied in addition to standard precautions and are tailored to the specific modes of transmission associated with particular pathogens. There are three main types of transmission-based precautions:

- 1. Contact
- 2. Droplet
- 3. Airbourne

#### Objectives:

- To ensure staff and patient safety.
- To ensure staff understand when to use PPE as part of the standard and transmission-based precautions.
- To ensure staff understand what PPE equipment is available.
- To ensure staff understand how to safely don and remove PPE.

# Implementation:

Protective equipment will be supplied and available in each clinical area or department as required. Equipment in areas is supplied by Medical Supplies via the impress system and Support Services.

All staff shall wear appropriate protective equipment whenever it is reasonably anticipated that they will be in contact with blood or body fluids from any patient and/or come into contact with a



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potentially contaminated surface, item, device or area such as an isolation zone, operating room, patient hygiene and cleaning/decontamination tasks.

Visitors are not usually required to wear protective clothing, but gowns, gloves/aprons or masks may be required for visiting patients in isolation.

Clinical staff will be trained in the use of PPE in orientation and the safe donning and doffing (removal) of PPE (see Appendix One and Two) as part of the Infection Prevention and Control Annual Competency. Non-clinical based staff will be trained according to their role. Those staff required to wear PPE are to have annual practical education sessions delivered by area health and safety, infection prevention representatives.



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#### **Evaluation:**

Tautoko education records Hospital-acquired infection and outbreak reporting to IPCC. Complaints Incident forms

Appendix One: Donning PPE Appendix Two: Removing PPE

#### **Associated Documents:**

#### External

• Lippincott, Personal Protective Equipment

#### Internal

- Health and Safety Policy
- Standard Precautions Policy
- Isolation Policy
- Infectious Diseases Patient Management
- Hand Hygiene Policy
- Blood and Body Fluid Exposure and Management Policy
- Outbreak Management Policy
- MDRO Policy
- Emergency Management Policy

# **Process**

#### Gloves

Gloves must be available and accessible in a range of sizes in all patient care areas. Gloves are single use.

Wearing gloves reduces contamination of hands and minimises the risk that a health care worker will become infected after contact with a patient's blood or body substance. When gloves are worn and used appropriately, they can reduce the likelihood that staff will transmit microorganisms from their hands to patients.

### The type of glove used will depend on the task involved:

## Non-sterile gloves:

• Non-sterile nitrile gloves are suitable for most situations when contact with any blood or body substance, mucous membranes or non-intact skin is anticipated.



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### Sterile gloves:

- Sterile gloves shall be worn for s procedures where asepsis must be maintained. This includes but is not limited to invasive procedures such as surgery, deep and or organ space manipulation/inspection, and the placement of devices/prostheses in deep/organ spaces.
- Personnel involved with surgical procedures should double-glove for added protection. Coloured "indicator" sterile gloves are worn next to the skin.

#### Masks

A mask shall be worn in the following situations.

- When splash or splatter with blood or body substance to the mucous membranes on the mouth and nose is anticipated.
- To protect staff from inhalation of infectious aerosols or droplets, smoke or plume or other airborne and droplet hazards.
- To prevent the spread of micro-organisms from the nasopharynx of staff of the patient to others who are susceptible.

# Types of masks:

Surgical Mask (with or without visor)

- Used in clinical areas or operating theatres.
- Used when caring for patients with a diagnosed or suspected droplet infectious disease.
- Used by immunocompromised patients/staff to protect them from inhalation of potentially infectious hazards.
- To maintain an optimised environment for the undertaking of a sterile procedure/ surgery and reduce the risk of infection from the user to the exposed sterile equipment/ wound.

#### Respirator mask

- Fit check should be undertaken before each use.
- Staff that use respirator masks regularly in their work should have a fit test every 12 months or in the event of facial shape change such as facial injuries, or significant dental work that changes the jaw or face shape. Fit testing is undertaken by qualified testers and is booked through Tautoko at onboarding and by staff members at any stage.
- Respirator mask protection can only occur when the mask has full skin contact. Facial hair will interfere with the ability of the mask to provide protection.
- Used when caring for patients with diagnosed or suspected infectious diseases that are transmitted via aerosol or airborne route.
- Used when preparing, administering, and discarding medications and or therapies that are hazardous to the administrator e.g., Chemotherapy.

Note: Masks are for single-person use. Once moist, a mask is not protective. Continuous wearing is not recommended. Masks used for suspected or confirmed infectious patient care are



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treated as hazardous waste and are discarded/doffed at the exit of the allocated isolation zone/room.

# Eye/ Face Protection

Eye/face protection shall be worn in any situation when splash or splatter with blood or body substance to the mucous membrane of the mouth, nose and or eyes is likely.

Types of eye/face protection:

- Chin-length plastic face shield.
- Mask with a visor attached.
- Safety glasses with side shields.
- Goggles.

Note: Prescription glasses do not provide adequate protection

# **Protective Clothing**

Gowns/aprons are to be worn to protect clothing and/or skin from becoming contaminated, soiled or wet from splashes or contact with blood or body substances, or during cleaning and disinfection.

# Types of protective clothing:

### Plastic aprons

• In general, disposable plastic aprons should be used in standard precautions where there is anticipated contact with blood/body fluid and patient clothing/skin with the uniform or skin of a staff member. E.g., removing a drain, or repositioning a patient.

### Fluid Resistant Gown

• Long-sleeved, disposable fluid-resistant gowns should be used for transmission-based isolation or where there is an elevated risk of contamination.

Note: Plastic aprons and gowns are single use

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#### Appendix One

# SEQUENCE FOR PUTTING ON PERSONAL PROTECTIVE EQUIPMENT (PPE)

The type of PPE used will vary based on the level of precautions required, such as standard and contact, droplet or airborne infection isolation precautions. The procedure for putting on and removing PPE should be tailored to the specific type of PPE.

# 1. GOWN

- Fully cover torso from neck to knees, arms to end of wrists, and wrap around the back
- · Fasten in back of neck and waist



# 2. MASK OR RESPIRATOR

- Secure ties or elastic bands at middle of head and neck
- · Fit flexible band to nose bridge
- · Fit snug to face and below chin
- · Fit-check respirator





# 3. GOGGLES OR FACE SHIELD

· Place over face and eyes and adjust to fit



# 4. GLOVES

· Extend to cover wrist of isolation gown



# USE SAFE WORK PRACTICES TO PROTECT YOURSELF AND LIMIT THE SPREAD OF CONTAMINATION

- Keep hands away from face
- · Limit surfaces touched
- . Change gloves when torn or heavily contaminated
- · Perform hand hygiene





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#### Appendix Two

# HOW TO SAFELY REMOVE PERSONAL PROTECTIVE EQUIPMENT (PPE) EXAMPLE 1

There are a variety of ways to safely remove PPE without contaminating your clothing, skin, or mucous membranes with potentially infectious materials. Here is one example. **Remove all PPE before exiting the patient room** except a respirator, if worn. Remove the respirator **after** leaving the patient room and closing the door. Remove PPE in the following sequence:

#### 1. GLOVES

- · Outside of gloves are contaminated!
- If your hands get contaminated during glove removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Using a gloved hand, grasp the palm area of the other gloved hand and peel off first glove
- · Hold removed glove in gloved hand
- Slide fingers of ungloved hand under remaining glove at wrist and peel off second glove over first glove
- · Discard gloves in a waste container



- · Outside of goggles or face shield are contaminated!
- If your hands get contaminated during goggle or face shield removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Remove goggles or face shield from the back by lifting head band or ear pieces
- If the item is reusable, place in designated receptacle for reprocessing. Otherwise, discard in a waste container



#### 3. GOWN

- · Gown front and sleeves are contaminated!
- If your hands get contaminated during gown removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Unfasten gown ties, taking care that sleeves don't contact your body when reaching for ties
- · Pull gown away from neck and shoulders, touching inside of gown only
- · Turn gown inside out
- · Fold or roll into a bundle and discard in a waste container

#### 4. MASK OR RESPIRATOR

- Front of mask/respirator is contaminated DO NOT TOUCH!
- If your hands get contaminated during mask/respirator removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Grasp bottom ties or elastics of the mask/respirator, then the ones at the top, and remove without touching the front
- . Discard in a waste container





# 5. WASH HANDS OR USE AN ALCOHOL-BASED HAND SANITIZER IMMEDIATELY AFTER REMOVING ALL PPE



PERFORM HAND HYGIENE BETWEEN STEPS IF HANDS BECOME CONTAMINATED AND IMMEDIATELY AFTER REMOVING ALL PPE





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# HOW TO SAFELY REMOVE PERSONAL PROTECTIVE EQUIPMENT (PPE) EXAMPLE 2

Here is another way to safely remove PPE without contaminating your clothing, skin, or mucous membranes with potentially infectious materials. **Remove all PPE before exiting the patient room** except a respirator, if worn. Remove the respirator **after** leaving the patient room and closing the door. Remove PPE in the following sequence:

#### 1. GOWN AND GLOVES

- Gown front and sleeves and the outside of gloves are contaminated!
- If your hands get contaminated during gown or glove removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Grasp the gown in the front and pull away from your body so that the ties break, touching outside of gown only with gloved hands
- While removing the gown, fold or roll the gown inside-out into a bundle
- As you are removing the gown, peel off your gloves at the same time, only touching the inside of the gloves and gown with your bare hands. Place the gown and gloves into a waste container



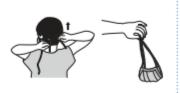
### 2. GOGGLES OR FACE SHIELD

- · Outside of goggles or face shield are contaminated!
- If your hands get contaminated during goggle or face shield removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Remove goggles or face shield from the back by lifting head band and without touching the front of the goggles or face shield
- If the item is reusable, place in designated receptacle for reprocessing. Otherwise, discard in a waste container



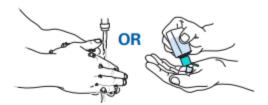
#### 3. MASK OR RESPIRATOR

- Front of mask/respirator is contaminated D0 NOT TOUCH!
- If your hands get contaminated during mask/respirator removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Grasp bottom ties or elastics of the mask/respirator, then the ones at the top, and remove without touching the front
- . Discard in a waste container





# 4. WASH HANDS OR USE AN ALCOHOL-BASED HAND SANITIZER IMMEDIATELY AFTER REMOVING ALL PPE



PERFORM HAND HYGIENE BETWEEN STEPS IF HANDS BECOME CONTAMINATED AND IMMEDIATELY AFTER REMOVING ALL PPE





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### Appendix Three

PPE education is tailored to the specific roles and responsibilities of different types of healthcare workers, as their potential exposures and tasks vary. Here's a breakdown of PPE education for different healthcare professionals:

#### 1. Clinical Patient Contact Roles:

## General PPE Training:

- Standard Precautions: Emphasis on hand hygiene, glove use, and proper gowning.
- Transmission-Based Precautions: Understanding when and how to use additional PPE based on the patient's condition.

# Specialized PPE:

- Instruct on the use of additional protective equipment during specific procedures (e.g., inserting catheters, wound care).
- Training on the use of masks or respirators during aerosol-generating procedures (appropriate to the scope of practice)
- Training on handling infectious waste and contaminated linens.

# 2. Physicians/Medical Doctors: Provided by arrangement for Credentialled Specialists *General PPE Training:*

Standard Precautions and Transmission-Based Precautions.

Proper use of masks, including N95 respirators for aerosol-generating procedures.

### Specialized PPE:

Education on PPE use during invasive procedures or surgeries.

Training on proper doffing procedures to minimize self-contamination.

# 3. Respiratory Therapists:

# General PPE Training:

Standard Precautions, especially emphasizing respiratory hygiene.

Understanding the use of masks, especially N95 respirators.

# Specialized PPE:

Training on respiratory protection during aerosol-generating procedures.

Emphasis on maintaining a seal when using respiratory protection.

# 4. Emergency Medical Technicians (EMTs) and Paramedics:

#### General PPE Trainina:

Standard Precautions during patient assessment and transport.

Use of gloves and eye protection.

### Specialized PPE:

Training on the use of masks or respirators during aerosol-generating procedures.

Proper disposal of PPE after patient care.



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# 5. Environmental Services (Support Services):

### General PPE Training:

Standard Precautions during cleaning and waste disposal.

Proper use of gloves and gowns.

# Specialized PPE:

Training on handling potentially contaminated surfaces and materials.

Proper disposal of infectious waste.

### 6. Administrative Staff:

# General PPE Training:

Standard Precautions for maintaining a safe environment.

Proper hand hygiene.

### Specialized PPE:

Understanding the importance of PPE compliance in common areas.

Training on promoting a culture of infection prevention.

#### 7. Pharmacists:

#### General PPE Training:

Standard Precautions during medication dispensing and handling.

Proper hand hygiene and glove use.

#### Specialized PPE:

Training on additional precautions for handling hazardous medications.

Proper use of eye protection when needed.

# **Key Considerations:**

Role-specific scenarios and case studies.

Hands-on training for proper donning and doffing.

Continuous education and updates as guidelines evolve.

Tailoring PPE education to the unique needs of each healthcare profession ensures that healthcare workers are equipped with the knowledge and skills necessary to protect themselves and their patients. Regular reinforcement and ongoing training are essential components of a successful PPE education program.