



## **Module 2: Standard & additional Precautions on infection prevention and control in health care facilities.**



**Session 2: Personal  
Protective Equipment  
(PPE) Use  
in Healthcare Settings**

**THINK  
SAFETY  
FIRST  
WEAR  
PERSONAL  
PROTECTIVE  
EQUIPMENT**



## 2.1 Session objectives

At the end of this session, the participants should be able to:

- Describe different kinds of personal protective equipment
- Demonstrate properly donning and doffing of personal protective equipment
- Correctly identify when a situation calls for personal protective equipment and which kind to use
- Explain the importance of PPE in infection prevention and control during donning and doffing of personal protective equipment.



## 2.2 Introduction

- In healthcare, personal protective equipment (PPE) refers to specialized clothing or equipment, including gloves, gowns, facial protection (masks and eye protection), respirators etc.
- PPE acts as a barrier to protect the healthcare provider from exposure to microorganisms, and can also be used to prevent the transmission of microorganisms from clients to staff, staff to clients, and staff to staff.



## 2.3 Importance of PPE

- Protects you and your patients from exposure to germs
- Lowers the risk of transmission between patients, visitors, and everyone who works in the healthcare facility
- Protects parts of your body where microorganisms are most likely to enter

### **Factors Influencing PPE Selection**

- Type of exposure anticipated
  - Splash/spray versus touch
  - Category of isolation precautions
- Durability and appropriateness for the task
- Fit



## 2.5 List of PPE Used in Healthcare Settings

- Boot covers
- Gloves
- Gown/coverall suit
- Goggles
- Surgical hood
- Apron
- Face shield
- Head cover
- Masks and respirators



# Types of PPE Used in Healthcare Settings

• Gowns/aprons	Skin, Clothing
• Gloves	Hands
• Goggles	Eyes
• Face shields	Face, Mouth, Nose, Eyes
• Masks and respirators	Mouth, Nose, Respiratory Tract

**PROTECT**



# When to Use PPE





## PPE for Standard Precautions

- Assumes blood and body fluid of ANY patient could be infectious
- Recommends PPE and other infection control practices to prevent transmission of infectious organisms
- Decisions about PPE use determined by the patient care activity or procedure



## PPE for Standard Precautions, cont.

- **Gloves** – Use when touching blood, body fluids, secretions, excretions, contaminated items, mucus membranes and non-intact skin
- **Gowns** – Use during procedures and patient care activities when there is contact of clothing or exposed skin with blood/body fluids, secretions, or excretions
- **Mask and goggles or a face shield** – Use during patient care activities likely to generate splashes or sprays of blood, body fluids, secretions, or excretions



## PPE for Additional Precautions

- Additional Precautions include:
  - Contact Precautions
  - Droplet Precautions
  - Airborne Infection Isolation



## PPE for Additional Precautions, cont.

- Contact Precautions
- Droplet Precautions
- Airborne Precaution
- Gown and gloves for contact with patient or environment of care
- Surgical masks within 6 feet of patient
- Respirator



## 2.5.1 LOGICAL SEQUENCES OF PPE

1. Boots



2. Gloves



3. Cover all



4. Mask



5. Hood



7. Gloves



6. Goggles





## 2.6 Types of PPE

### Basic PPE

- Gloves
- Face shield  
(or Goggles and Face mask)
- Boots or close-toed shoes
- **Gown**
- **Plasic Apron**

### Extended PPE

- Gloves (two pairs)
- Face shield  
(or Goggles)
- Face Mask
- Impermeable gown or coverall
- Head cover, if available
- Hood
- Apron
- Boots

### PPE for Cleaners

- Gloves (latex +heavy duty gloves)
- Face shield  
(or Goggles)
- Face Mask
- Impermeable gown or coverall
- Head cover if available
- Hood
- Apron
- Boots



## 2.7 Putting on (Donning) steps

1. Remove personal clothing and items (eg: ring, watch, Ear rings...)
2. Inspect PPE prior to Donning
3. Perform hand hygiene
4. Put on boot covers
5. Put on inner gloves
6. Put on gown/coverall suit
7. Put on N95 mask
8. Put on surgical hood
9. Put on apron
8. Put on outer gloves
9. Put on face shield
10. Verify



## 2.7 Putting on (Donning) steps cont...



**Remove all jewelry and put away cell phones**



**Put on boots or shoe covers**



**Wash your hands**



**Put on gloves**



4



**Face Mask**

5



**Put on face shield or goggles**





## 2.8 Removing (Doffing) steps

1. Disinfect outer gloves (alcohol 70%)
2. Remove outer apron
3. Disinfect outer gloves (alcohol 70%)
4. Remove boot covers
5. Disinfect outer gloves (alcohol 70%)
6. Remove and discard outer gloves
7. Inspect inner gloves
8. Disinfect inner gloves (alcohol 70%)
9. Remove the face shield

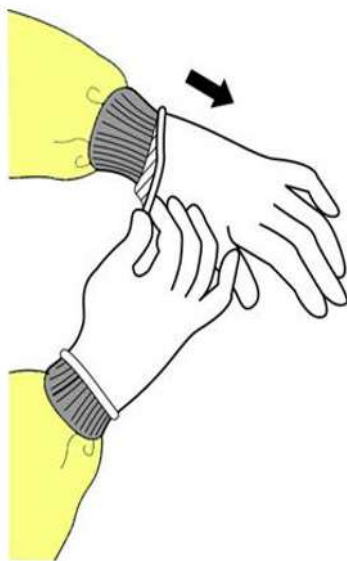


## 2.8 Removing (Doffing) steps Cont.....

1. Disinfect inner gloves (alcohol 70%)
2. Remove the surgical Hood
3. Disinfect inner gloves (alcohol 70%)
4. Remove the gown/coverall suit
5. Remove the N95 mask
6. Disinfect inner gloves Disinfect your shoes (alcohol 70%)
7. Disinfect inner gloves (alcohol 70%)
8. Remove and discard inner gloves
9. Perform Hand hygiene
10. Review body for contaminants
11. Exit the doffing area



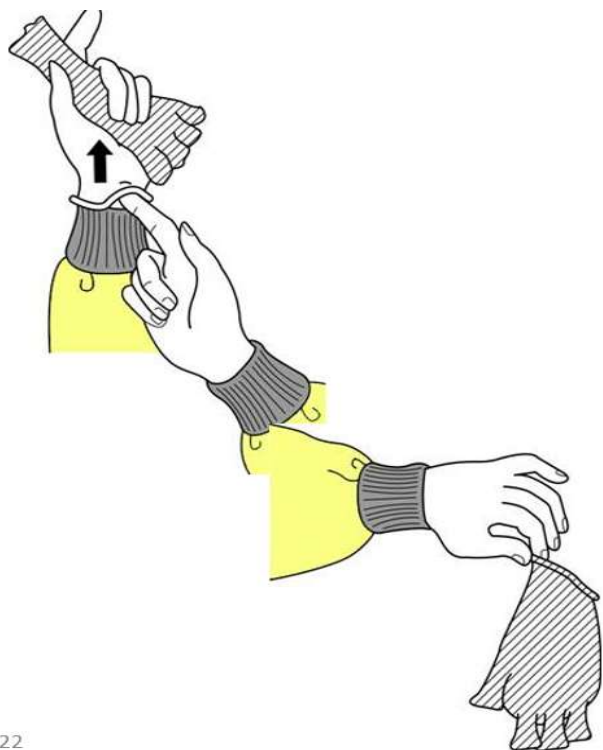
## 2.8.1 How to Remove Gloves step



1. Grasp outside edge near wrist
2. Peel away from hand, turning glove inside-out
3. Hold in opposite gloved hand



## 2.8.1 How to Remove Gloves step cont...



4. Slide ungloved finger under the wrist of the remaining glove
5. Peel off from inside, creating a bag for both gloves
6. Discard appropriately



## 2.8.2 How to Remove Goggles and Face Shield



1. Grasp ear or head pieces with ungloved hands
2. Lift away from face
3. Place in designated receptacle for reprocessing or disposal



## 2.8.3 How to Remove Gown



1. Unfasten ties
2. Peel gown away from neck and shoulder
3. Turn contaminated outside toward the inside
4. Fold or roll into a bundle
5. Discard



## 2.8.4 How to Remove Respirator mask



1. Lift the bottom elastic over your head first
2. Then lift off the top elastic
3. Discard



# Hand Hygiene

- Perform hand hygiene immediately after removing PPE
- If hands become visibly contaminated during PPE removal, wash hands before continuing to remove PPE
- Wash hands with soap and water or use an alcohol-based hand rub

Ensure that hand hygiene facilities, e.g. sink or alcohol-based hand rub, are available at the PPE removal area,





# What Type of PPE Would *You* Wear?

- Giving a bed bath?
- Suctioning oral secretions?
- Transporting a patient in a wheel chair?
- Responding to an emergency where blood is spurting?
- Drawing blood from a vein?
- Cleaning an incontinent patient with diarrhea?
- Irrigating a wound?
- Taking vital signs?



## PPE for Additional Precautions

- Additional Precautions include:
  - Contact Precautions
  - Droplet Precautions
  - Airborne Infection Isolation



## PPE for Additional Precautions, cont.

- Contact Precautions
- Droplet Precautions
- Airborne Precaution
- Gown and gloves for contact with patient or environment of care
- Surgical masks within 6 feet of patient
- Respirator



## Key Points

- PPE is available to protect you from exposure to infectious agents in the healthcare workplace.
- PPE is designed to protect the skin and the mucous membranes of the eyes, nose, and mouth of health-care personnel from exposure to blood or other potentially infectious material or organisms.
- Facilities are obliged to provide the PPE.



## 2.10 Find the PPE Mistakes



**2** ISOLATE



## 2.10 Find the PPE Mistakes cont..

Problem	Correct Action
<ul style="list-style-type: none"><li>• No gloves while drawing blood</li></ul>	<ul style="list-style-type: none"><li>• Wear gloves when drawing blood</li><li>• Do <u>NOT</u> draw blood from suspected Ebola patients</li></ul>





## 2.10 Find the PPE Mistakes cont....

Problem	Correct Action
<ul style="list-style-type: none"><li>• Touching coverall hood with hands</li><li>• Coverall hood not fully covering hair</li><li>• Mask not covering nose</li><li>• No eye protection</li></ul>	<ul style="list-style-type: none"><li>• Do not touch or adjust PPE</li><li>• Do not touch your face</li><li>• Ensure coveralls or hood fully covers hair and ears</li><li>• Ensure mask fully covers nose and mouth</li><li>• Wear face shield or goggles and face mask</li></ul>







## 2.10 Find the PPE Mistakes cont....

Problem	Correct Action
<ul style="list-style-type: none"><li>• Holding phone with gloves on</li></ul>	<ul style="list-style-type: none"><li>• Do not pick up objects (phones, pens, books, patient files, etc.) while wearing PPE</li><li>• Doff gloves, perform hand hygiene, then pick up objects</li></ul>







## 2.10 Find the PPE Mistakes cont....

Problem	Correct Action
<ul style="list-style-type: none"><li>• Face mask not covering nose and mouth</li><li>• Wearing PPE outside of the healthcare facility area</li></ul>	<ul style="list-style-type: none"><li>• Ensure face mask fully covers nose and mouth and adjust to fit</li><li>• Doff PPE before leaving healthcare facility area</li></ul>





## 2.11 Session summary

- PPE is available to protect you from exposure to infectious agents in the healthcare workplace.
- Facilities are obliged to provide the PPE.
- Health-care personnel are obliged to use PPE to assure reduced risk of contamination
- Health-care personnel are obliged to use PPE to assure reduced risk of contamination
- Different kinds of PPE are appropriate to different patient care activities.
- It is important to know what type of PPE is necessary for the duties you perform and how to use it correctly.



# Thank You Questions ?



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