

Personal Protective Equipment (PPE)

Personal protective equipment (PPE): is a specialized clothing or equipment, worn by an employee for protection against infectious materials.

PPE are used as Barrier precautions to minimize the risk of exposure to blood and body fluids. Barrier precautions consist of using masks, gowns, and gloves, to create a barrier between the person (workers and clients) and the microorganism that prevents transmission of the microorganisms.

Equipment:

As indicated according to which activities will be performed, ensure that extra supplies are easily available.

- Gown
 - Mask
 - Eyewear
 - Clean gloves
1. Consider which activities will be required while the nurse is in the client's room at this time.
 2. Remove or secure all loose items such as name tags or jewelry.
 3. Perform hand washing. *Hand washing is necessary before donning gloves or other PPE to reduce the transmission of microorganisms*

Donning and removing clean gown:

Purpose: To reduce or minimize infection transmission on clothing by offering protection barrier.

Equipment: Cloth or disposable full length gown with long sleeves.



Procedure:

N	Steps	Rationale
	* Donning Gown	
	• Hold the gown by the shoulders and allow it to unfold in front of you without allowing it to touch any area soiled with body substances.	• <i>To prevent contaminating the outside of the gown.</i>
	• Slip arms through the gown's sleeves • Pull the gown up onto shoulders by grasping the inside of the gown at the shoulders	• <i>The inner side of the gown is cleaner than the outer side so to prevent touching the outside of the gown with your ungloved hands</i>
	• Adjust the cuffs	• <i>To avoid slipping off</i>
	• position the gown around neck • Fasten the ties at the neck	• <i>To keep the gown in place</i>
	• Grasp the gown at the waistline in the back. • Overlap the gown at the back as much as possible, and fasten the waist ties or belt	• <i>To keep back covered.</i>
	* Removing the gown	
	• Untie the waist and neck ties	• <i>To remove the gown</i>
	• Grasp the inside of the gown at the shoulder area • Bring the neck of the gown forward and draw it over your arms and hands.	• <i>To prevent contamination.</i> • <i>To reduce the transmission of microorganisms.</i>
	• Keep the arms away from the body • Hold the gown so that the contaminated outside of it is folded inward and rolled in a bundle.	
	• Discard the gown in appropriate receptacle in patient's room • Wash your hands	

Donning and removing a clean mask

Purpose: To prevent the transmission of airborne microorganisms from the nurse's respiratory tract to the patients or the sterile area.

Equipment: Mask.

Procedure:

N	Steps	Rationale
	* Donning a mask	
	- Find the top edge of the mask (usually has thin metal strip along edge) - Then grasp the mask by using the strings.	<i>Pliable metal fits snugly against bridge of nose.</i>
	Place the upper edge of the mask over the bridge of the nose.	<i>Position of ties at the top of head provides tight fit.</i>
	Tie the upper ties at the back of the head or secure the loops around the ears.	<i>Ties over ears may cause irritation.</i>
	If glasses are worn, fit the upper edge of the mask under the glasses.	<i>With the edge of the mask under the glasses, clouding of the glasses is less likely to occur.</i>
	Secure the lower edge of the mask under the chin, and tie the lower ties at the nape of the neck.	<i>To be effective, a mask must cover both the nose and the mouth, because air moves in and out of both.</i>
	If the mask has a metal strip, adjust this firmly over the bridge of the nose.	<i>A secure fit prevents both the escape and the inhalation of microorganisms around the edges of the mask and the fogging of eyeglasses.</i>
	Wear the mask only once, and do not wear any mask longer than the manufacturer recommends or once it becomes wet.	<i>A mask should be used only once because it becomes ineffective when moist.</i>
	Do not leave a used face mask hanging around the neck.	
	* Removing the mask	
	If using a mask with strings, first untie the lower strings of the mask.	<i>This prevents the top part of the mask from falling onto the chest.</i>
	- Untie the top strings and, while holding the ties securely, remove the mask from the face. - If side loops are present, lift the side loops up and away from the ears and face. - Do not touch the front of the mask.	<i>The front of the mask through which the nurse has been breathing is contaminated.</i>
	Discard a disposable mask in the waste container. Perform proper hand hygiene again.	<i>To reduce the transmission of microorganisms.</i>

Donning and removing Cap (Head Cover)

Purpose: To prevent the transmission of microorganisms that resides on nurse's hair to the patients or the sterile area.

Equipment: Paper or cloth cap, Hair pins.

Procedure:



N	Steps	Rationale
	* Donning a cap	
	• If hair is long, comb back behind shoulders, then arrange it on the crown of head.	• <i>Cap must entirely cover the hair.</i>
	• Secure hair in place with pins.	• <i>Long hair should not fall down or cause cap to slip and expose hair.</i>
	• Apply cap over the head as you would apply hairnet.	• <i>Loose hair hanging over sterile field results in contamination.</i>
	• Be sure hair fits under cap's edges.	• <i>To control all hair under the cap</i>
	* Removing the head cap	
	• Grasp outer surface of the cap, then lift from hair.	• <i>To minimize contact with hair.</i>
	• Discard the cap in the waste container. • Perform proper hand hygiene again	• <i>To reduce the transmission of microorganisms.</i>

Non- Sterile Gloving Technique

Purpose: provide a mechanical barrier to:

- Reduce the risk of microorganisms in the hospital environment and the risk of infection transfer by healthcare staff onto patients and vice versa.
- Reduce the risk of hand contamination in healthcare personnel with biological material.

Equipment: Non-sterile gloves or elastic gloves.

Procedure:

N	Steps	Rationale
	* Gloving	
	• Remove the gloves from the box one at time	
	• Place the hand through the opening and pull the glove up to the wrist. • Repeat with the second glove. No special technique is required.	
	• If wearing a gown, pull the gloves up to cover the cuffs of the gown. • If not wearing a gown, pull the gloves up to cover the wrists	
	* Removing the contaminated or soiled gloves	
	• Remove the first glove by grasping it on its palmar surface, taking care to touch only glove to glove	• <i>To keep the soiled parts of the used gloves from touching the skin of the wrist or hand.</i>
	• Pull the first glove completely off by inverting or rolling the glove inside out.	
	• Continue to hold the inverted removed glove by the fingers of the remaining gloved hand. • Place the first two fingers of the bare hand inside the cuff of the second glove.	• <i>Touching the outside of the second soiled glove with the bare hand is avoided.</i>
	• Pull the second glove off to the fingers by turning it inside out. • This pulls the first glove inside the second glove.	• <i>The soiled part of the glove is folded to the inside to reduce the chance of transferring any microorganisms by direct contact.</i>
	• Using the bare hand, continue to remove the gloves, which are now inside out, and dispose of them in the refuse container. • Perform hand hygiene.	• <i>Contact with microorganisms may occur while removing PPE.</i>



Gloves should be worn:

- Only once, and should not be washed for reuse
- When in contact with blood, body fluids or excreta
- When handling soiled or contaminated equipment or linen
- When caring for patients with a known infection.

Gloves should be discarded:

- Between each patient
- If they become heavily soiled, or contaminated with infected material
- If torn during patient care.

Points to remember:

- To remove soiled PPE, remove the gloves first since they are the most soiled.
- Remove the gown when preparing to leave the room.
- Remove the mask at the doorway to the client's room. If using a respirator mask, remove it after leaving the room and closing the door.
- Use of gloves does not replace the need to perform hand hygiene.

Establishing and Maintaining a Sterile Field



