

5. PERSONAL PROTECTIVE EQUIPMENT (PPE)

PPE should not be relied on as a stand-alone primary prevention program. Focusing only on availability and use of various PPE will result in suboptimal protection of all persons, including clients, HCWs and other staff. PPE provides a physical barrier between the uninfected and an infectious agent/infected source, and protects the user from exposure to bloodborne and other microorganisms (e.g., sprays of blood, body fluids, respiratory tract or other secretions or excretions).

Appropriate PPE must be available for use by clients, HCWs, visitors, contractors, and others, to prevent exposure to an infectious agent/infected source. Effective and appropriate use of PPE is reliant on the user's adherence and competence. HCWs should determine what PPE is needed by assessing the risk of exposure to blood, body fluids, secretions and excretions, mucous membranes, or non-intact skin during patient care interactions. The PCRA identifies hazards and enables the HCW to select PPE compatible with the hazard likely to be encountered during the client care interaction. The selected PPE should maximize protection, dexterity and comfort.

Appropriate and proper use of PPE includes:

- Point of Care Risk Assessment (PCRA) to determine need for PPE
- Correct technique for putting on and taking off PPE
- Correct technique when wearing PPE (e.g., not contaminating self)
- Discard into designated receptacles immediately after use, followed by hand hygiene, preferably with alcohol-based hand rub (ABHR)

Following the PCRA, PPE for the appropriate application of Routine Practices may include:

- Gloves
- Gowns
- Facial protection
 - Masks (procedure or surgical)
 - Eye protection (safety glasses or goggles or face shields)
Does NOT include prescription or fashion glasses
 - Masks with visor attachment

Performing a point of care risk assessment to determine whether PPE is necessary is also important to avoid overreliance on PPE, misuse or waste. Over-reliance on PPE may result in a false sense of security. Misapplication or incorrect removal of PPE can result in inadvertent exposure of the user or patient to infectious agents or contamination of the patient's environment.

a) **Gloves**

The use of gloves is not a substitute for hand hygiene, but an additional measure of protection. For Routine Practices, glove use is dependent on a risk assessment of the patient, the environment and the interaction. Gloves are not required for routine client care activities when contact is limited to a client's intact skin. Available gloves for patient care include procedure and surgical (i.e., sterile) gloves.

Gloves are used to reduce the transmission of microorganisms from one patient to another or from one body site to another, and to reduce the risk of exposure of the user to blood, body fluids, secretions and excretions, mucous membranes, draining wounds or non-intact skin and for handling items or touching surfaces visibly or potentially soiled. **Hand hygiene is ALWAYS necessary after the removal of gloves.** Gloves may have microscopic holes, or hands may become contaminated during glove removal.



- i. Wear gloves as determined by the Point of Care Risk Assessment(PCRA):
 - For anticipated contact with blood, body fluids, secretions and excretions, mucous membranes, draining wounds or non-intact skin (including skin lesions or rash)
 - For handling items or touching surfaces visibly or potentially soiled with blood, body fluids, secretions or excretions
 - While providing direct care if the user has an open cut or abrasions on the hands

- ii. Appropriate Glove Use:
 - Perform hand hygiene prior to putting on gloves for tasks requiring clean, aseptic or sterile technique
 - Put gloves on directly before contact with the client or just before the tasks or procedure requiring gloves
 - Wear disposable procedure or surgical gloves or reusable utility gloves for cleaning the environment or medical equipment
 - Remove gloves and perform hand hygiene immediately after client care activities. If gloves are still indicated, replace with a clean pair
 - Remove gloves and dispose into a hands-free waste receptacle immediately following their intended use. Do not reuse single use gloves. Do not clean gloves with alcohol-based hand rub or wash for reuse
 - Perform hand hygiene following the removal of gloves, before leaving the client's environment and before touching environmental surfaces
 - Do not use the same pair of gloves for the care of more than one client
 - Do not double glove

Single use gloves must never be washed. Washing affects integrity and has not been shown to be effective in removing inoculated microorganisms.

b) Long Sleeved Gowns and Other Apparel

Long sleeved gowns are worn for Routine Practices as indicated by the risk assessment, to protect uncovered skin and clothing during procedures and client care activities likely to produce soiling or generate splashes or sprays of blood, body fluids, secretions or excretions.

- i. Gowns include isolation gowns – reusable/disposable, fluid repellent, or sterile. The type of gown selected is based on the PCRA:
 - Anticipated degree of contact with infectious material
 - To protect uncovered skin
 - To prevent soiling of clothing
 - During procedures and client care activities likely to soil clothing and/or generate splashes or sprays of blood, body fluids, secretions or excretions
 - Potential for blood and body fluid penetration of the gown (fluid repellence when heavy liquid contamination is anticipated (e.g., operating theatre, dialysis)
 - Requirement for sterility (e.g., operating theatre, central line insertion)

- ii. Appropriate Gown Use:
 - Perform hand hygiene before gowning
 - Ensure gown is long enough to cover the front and back of the user, from the neck to mid-thigh and the sleeves no shorter than just above the wrist
 - Put gown on with the opening at the back, with edges overlapping, thus covering as much clothing as possible

- Ensure cuffs of the gown are covered by gloves
- Tie the gown at the neck and waist
- Remove gown by undoing the neck and waist ties, starting with neck ties, and remove the gown without touching the clothing or agitating the gown unnecessarily; then turn the gown inside on itself, and roll it up
- Remove gown immediately after the indication for use and place in a hands-free waste receptacle (if disposable), or in a soiled linen bag (if reusable), and perform hand hygiene before leaving the client's environment
- Remove wet gowns immediately to prevent a wicking action that facilitates the passage of microorganisms through the fabric
- Do not reuse gowns once removed, even for repeated contacts with same client
- Do not wear the same gown between successive clients

In the laboratory setting, wearing of laboratory coats is considered PPE. Outside of the laboratory, apparel such as uniforms, laboratory coats or scrub suits may be worn by HCWs for purposes of comfort, convenience or identity but do not have a role in the prevention of infection (i.e., they are not considered PPE).

In the dental setting clinic jackets/protective gowns or other clinic designated protective outerwear shall be worn *only* during active client care to protect the wearer's clothing from splatter, splash and spray. If at any time during the clinic day the protective outerwear becomes visibly soiled, it shall be placed in the soiled linen receptacle and replaced with clean protective outerwear. At the end of each day: the protective clothing shall be placed in a designated soiled linen receptacle for laundering

For aesthetic purposes and professional etiquette, HCW apparel and uniforms should be clean. It is safe to launder HCWs uniforms at home. Adhere to organizational policy regarding the laundering of scrub suits and uniforms supplied by the organization.

c) **Facial Protection**

Facial protection includes masks (procedure or surgical), eye protection (safety glasses or goggles or face shields), or masks with visor attachment.

i. Masks

Masks include procedure or surgical masks, and have several uses:

- To protect from sprays or splashes
- As a barrier for infectious sources
- As a barrier when performing aseptic/sterile procedures
- To protect susceptible hosts when within two metres/six feet of clients with respiratory signs/symptoms

ii. Eye Protection

- The eye is an important portal of entry for some pathogens. Pathogens may be introduced into the eye directly via respiratory droplets generated during coughing or suctioning, or by self-inoculation if the eyes are touched with contaminated fingers. Eyes may be protected through use of:
 - Masks with built-in eye protection
 - Safety glasses/goggles, or
 - Face shields



iii. The need for facial protection during routine patient care is based on the PCRA:

- Interactions involving activities likely to generate coughing, splashes or sprays of blood, body fluids, secretions or excretions, and procedures that potentially expose the mucous membranes of the eyes, nose or mouth, require facial protection.
- Transmission of hepatitis C and HIV has been reported by splashes of blood to the mucous membranes of the face.
- To protect the mucous membranes of the eyes, nose and mouth during procedures and patient care activities likely to generate splashes or sprays of blood, body fluids, secretions or excretions including respiratory secretions
- When caring for a coughing/sneezing client

When eye protection is required, wear eye protection over prescription glasses; prescription glasses alone are not adequate for eye protection.

iv. Appropriate Use of Facial Protection:

- Perform hand hygiene prior to applying facial protection
- Wear and discard facial protection appropriately to prevent self-contamination
- Ensure nose, mouth and chin are covered when wearing a mask
- Users should avoid touching their faces with their hands during client care.
- Avoid self-contamination by not touching facial protection on its external surface during use and disposal
- Wear disposable eye protection or face shields only once to avoid self-contamination
- Remove facial protection carefully by the straps or ties
- Discard facial protection immediately after the intended use into a hands-free waste receptacle (i.e., dispose of as soon as removed from the face) and perform hand hygiene
- If eye protection or face shields are reusable, clean and disinfect as per organizational policy before reuse
- Do not dangle a mask around the neck when not in use; do not reuse mask
- Change the mask if it becomes wet or soiled (from the wearer's breathing or due to an external splash)
- Change the mask if breathing becomes difficult
- Do not position on head or around the neck for later use