

Standard of the Month – April 2021

Doffing Practices

Over the past year, the use of Personal Protective Equipment (PPE) has become a part of our daily lives to an extent never imagined. In our workplaces, droplet precautions are now routine practice and we're adapting to wearing N95 respirators for extended periods of time. Many of you have attended at least one inservice on proper PPE donning and doffing.

With so much focus on PPE, the Standards Committee has been asked to provide rationale for differences between the doffing sequence recommended by the ORNAC Standards and the public health guidelines that are being used in many organizations.

While Surgical Gowns and Gloves are a type of PPE, for the purposes of this discussion we will define PPE as those items worn specifically for infection control purposes as part of Routine and Additional Precautions. These items may include; isolation gowns, exam gloves, eye protection (goggles or face shield), and procedure masks or respirators.

When removing contaminated surgical gown and gloves, ORNAC recommends the following procedure;

1. Scrubbed person unties wrap-around waist tie
2. Circulating nurse (or other non-scrubbed person) unties the inner/back tie(s) of the surgical gown (if necessary, e.g. for reusable gowns)
3. Scrubbed person removes the gown by grasping the front of the gown and pulling the gown down over the arms, turning inside out and rolling it away from their body. This supports containing contaminants.
4. Gloves are then removed using a glove-to-glove then skin-to-skin technique.
5. Perform hand hygiene

ORNAC does not have specific recommendations for doffing masks, respirators or eye protection. Please see ORNAC Standards (2019), Section 2.12.12-2.12.16 for complete recommendations.

Many Infection Prevention and Control authorities/Public Health agencies recommend the following procedure for doffing PPE worn for infection control purposes*;

1. Remove contaminated gloves using a glove-to-glove then skin-to-skin technique.
2. Perform Hand Hygiene
3. Untie isolation gown (collar and waist ties).
4. Remove gown by pulling the gown down over the arms, turning inside out and rolling up.
5. Perform Hand Hygiene.
6. Remove Eye protection
7. Remove Mask/Respirator
8. Perform Hand Hygiene

*Procedures may vary please refer to your local Infection Prevention and Control authority/Public Health agency.

The goal of the doffing sequence for PPE is to ensure that there is no unnecessary contamination of the healthcare providers' clothing, skin or mucous membrane with potentially infectious material (CDC, nd; Public Health Ontario, 2012). Additionally, the CDC recognizes that there are a number of ways to safely doff PPE.

The differences between the recommendations can be attributed to the work environment/resources and the design of the PPE, specifically the gowns.

Isolation gowns typically have ties at the collar, which require direct handling when doffing. By removing contaminated gloves (and performing hand hygiene) *prior* to removing the isolation gown, the wearer can safely untie the gown without contaminating their skin or clothing. Donning and doffing practices for PPE are developed so they can be safely completed by an individual practitioner working in isolation - by removing the gloves first, the wearer does not require assistance from another individual when doffing.

The ORNAC recommended practice in the operating room is an effective method to ensure that the hands remain covered and are not exposed to contaminants on the front of the surgical gown. Surgical gowns are usually designed with a snap or other break away collar enabling the scrubbed person to unfasten the gown without having to handle the fastenings. Also, in the operating room there are also a number of team members available that can assist with doffing (e.g. when using reusable surgical gowns).

We hope this provides clarity around doffing recommendations.

References

Centers for Disease Control (CDC), (n.d.) Sequence for putting on personal protective equipment. <https://www.cdc.gov/hai/pdfs/ppe/PPE-Sequence.pdf>

Public Health Agency of Ontario (2012). Routine practices and additional precautions; in all health care settings, 3rd edition. <https://www.publichealthontario.ca/-/media/documents/B/2012/bp-rpap-healthcare-settings.pdf?la=en>