



POLICIES AND PROCEDURES MANUAL

System Department

Supersedes:

Section: Biocontainment Unit
Subject: **Doffing PPE with PAPR (Biological Protective Suit and Powered Air Purifying Respirator)**
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Nebraska Biocontainment Unit

Doffing Biological Protective Suit and PAPR

Policy:

Nebraska Biocontainment Unit (NBU) staff shall wear the level of personal protective equipment determined by the NBU Medical Director or designee. This PPE shall be doffed in a manner that shall prevent staff exposure to potential contaminants acquired during the care of patients with highly hazardous communicable diseases.

This procedure is not to be rushed.

Materials:

Appropriate PPE for doffing partner (DP)

1:10 bleach solution wipes

Clean gloves

Hand sanitizer

Autoclave bag x2

Waste container x2

Cap for PAPR air outlet

Surgical mask

Physical therapy stool (PT stool)

IV pole

1 chair inside the patient care room

Purpose:

To provide guidelines for doffing PAPR Level PPE. The DP shall assist the healthcare worker (HCW) in the removal of the HCW's PPE.

See appendix A for appropriate PPE to be worn by the DP.

Prior to the HCW leaving the patient care room:

The DP shall prepare the doffing area by gathering two waste containers lined with autoclave bags, one PT stool and one IV pole to hang the PAPR motor on.

Patient care room door

(Figure 1)

Note: With each glove change, perform hand hygiene then use glove-in-glove technique to remove gloves and perform hand hygiene again using the WHO method prior to donning clean gloves

(WHO, 2009, retrieved from http://www.who.int/gpsc/5may/Hand_Hygiene_Why_How_and_When_Brochure.pdf.)

HOW TO HANDRUB?

RUB HANDS FOR HAND HYGIENE! WASH HANDS WHEN VISIBLY SOILED

ⓐ Duration of the entire procedure: 20-30 seconds



Exiting the Patient Care Room

Prior to exiting the patient care room the HCW shall:

1. Communicate with the DP to ensure they are ready to assist with doffing PPE.
2. Wipe any soiled areas of their suit with bleach wipes.

3. Place chair near the door then wipe it with a bleach wipe and allow to dry.
4. Sit in the chair, remove outer boots and discard into waste.
5. Stand, disinfect gloves and then remove the 3rd layer gloves with a bleach wipe.
6. Wipe the 2nd layer gloves with a bleach wipe.
7. Wipe the door handle with a bleach wipe, open door with the wipe and step out into the designated doffing area.

PAPR Belt Removal

8. Keeping the PAPR blower unit switched on, the HCW shall face away from the DP and unbuckle the PAPR belt while the DP supports the PAPR unit.
9. The HCW passes the PAPR belt to the DP
10. The DP shall buckle the belt and hang the PAPR unit on the IV pole.
11. The DP shall wipe the PAPR motor and tubing using separate bleach wipes and taking care to prevent any parts from touching the HCW.
 - a. The DP shall use a twisting motion to ensure the entire surface of the tubing is disinfected; starting at the hood and moving down to the PAPR unit.
12. The DP shall perform hand hygiene and change gloves.

Note: The PAPR tubing is to be disposed of unless there is a supply shortage. In such circumstance, the DP shall carefully remove the PAPR tubing for disinfection and reuse.

Glove Removal

13. The HCW shall perform hand hygiene, then holding arms low and over the waste container carefully remove the tape from both wrists.
14. The HCW will now remove the long cuff purple nitrile gloves using glove in glove technique and dispose of them into the waste.
15. HCW performs hand hygiene.

Suit Removal

16. DP rolls up the outer cape of the PAPR hood.
 - a. Do this by grasping underneath the outer layer of the hood cape and rolling the edges tightly inward and upward all the way around.
17. The DP shall open the zipper flap by releasing the adhesive strip and folding it back on itself to cover the adhesive and then unzip the suit.
18. HCW shall pull the coverall sleeves down over hands/inner gloves and holds the ends in each hand in a way that closes the sleeve.
19. HCW grasps suit at waist/flank level and shrug/ pulls it off over shoulders, turning it inside out as it is being lowered to knee level..
 - a. Be sure to keep both hands inside the suit arms.

20. Pull the hands out of the suit arms. When the suit is pulled from the arms, the inner gloves remain in place. If the gloves are accidentally removed, perform hand hygiene and don a clean pair of gloves. Be sure to contain the arms of the suit after removal.
 - a. Shuffle out of suit by alternatively moving feet up and down, then remain standing on the inside of the suit.
 - b. The inner boot liners remain in place.

PAPR Hood Removal

21. The DP shall then switch off the PAPR unit, disconnect the PAPR tubing from the PAPR motor and immediately secure a clean cap onto the PAPR unit air outlet port.
22. The HCW shall then remove the PAPR hood by bending forward and placing both hands under the inner cape towards their ears and pushing the inner cape forward and off their head to place the hood in the empty autoclave bag lined waste container.
 - a. As the HCW removes the hood the DP assists with managing the tubing and ensures it does not touch the HCW's clothing, skin or hair.
23. The HCW and DP perform hand hygiene, remove their gloves using glove in glove technique, perform hand hygiene again and don a clean pair of gloves.
24. The HCW shall don a procedure mask provided to them by the DP after hand hygiene and clean gloves have been donned.
25. The HCW will step over onto the clean portion of the doffing area.
26. Holding onto the PT stool for balance, the HCW removes clear boot liners and steps away from the clean portion of the doffing area.
27. The HCW shall remove gloves using glove in glove technique, perform hand hygiene and don clean gloves.

Health Care Worker Leaves the Doffing Area

27. The HCW shall proceed directly to the sink to wash their hands and forearms with soap and water and don clean gloves.
28. The HCW shall wait in the warm zone in the designated area until notified to proceed to the dry shower.

Dry Shower Procedure

26. The HCW will close both doors to the dry shower and remove clothing and shoes from bottom to top.
27. Remove shoes and submerge them in the bucket of 1:10 bleach solution 3 times and then place them in the drying bucket.
28. Remove gloves and place them in the waste container.
29. Remove scrub pants and place them in the laundry container.

30. Remove scrub top by pulling the neck from behind the neck up and over the head so as the outside material does not touch your face.
31. Remove undergarments and place in the waste container or the laundry container.
32. Proceed to the shower.
29. After showering, the HCW shall exit the biocontainment unit for rest, nutrition and rehydration.

Doffing Area Clean-up

30. The DP shall gently fold under the sides of the HCW's suit and place in waste container.
31. Wipe the door, door frame and walls that may have been exposed to the HCWs PPE with bleach wipes and dispose of the wipes in the waste container.
32. Wipe down the PT stool and IV pole with bleach wipes and allow to air dry.
 - b. Place the PAPR motor in red biohazard bag and store in the designated area. Refer to NBU policy 1055 Cleaning and Disinfecting PAPR Battery – Tubing
33. The DP shall remove the autoclave bags from the waste containers following NBU policy 1167.
 - a. Secure the bags with autoclave tape.
 - b. Do not express any trapped air from the bag.
 - c. Place the bags in the designated area until it is time to autoclave them.
34. Bleach mop the entire area and allow to dry.
35. Follow NBU policy 1167 Waste Process to remove the waste from the NBU.

Staff Accountability:

Nebraska Biocontainment Unit Leadership
Policy and Procedure Workgroup

Appendix A: Guidance for DP personal protective equipment use

1. A person wearing equivalent level of PPE as the HCW shall remain outside the patient care room to assist with doffing those providing patient care.
2. The DP shall assist with doffing all individuals who exit the patient care rooms. If 2 individuals need to exit the room they shall be assisted one at a time.
3. Only DPs may assist with doffing.

4. Persons waiting to be doffed are to remain in the patient care room until the DP is prepared to assist with doffing.
5. When all individuals have been assisted with doffing, the DP shall be assisted by the oncoming DP.
 - a. If the DP is the last person in PPE after patient discharge they shall doff without assistance, but under the guidance of the last person they doffed who shall remain at a safe distance wearing gloves, yellow isolation gown and a surgical mask.

Appendix B: Guidance for doffing transportation personnel with external footwear (i.e. firemen boots)

1. Place the boots into a separate autoclave bag
2. Gently and loosely gather the bag and secure it with autoclave tape.
3. Do not express any trapped air from the bag.
4. Place the bag in the designated area for items awaiting autoclaving.

Appendix C: Guidance for removing communication devices

1. After removing the PAPR hood and donning clean gloves the HCW shall remove the communication device(s)
2. Place the communication device(s) in the designated container and place it in the dirty room to be processed by NBU environmental experts. **DO NOT AUTOCLAVE.**

Department Approval

Signed | s |: Kate Boulter
 Title: Nurse Manager
 Department: NBU

Administrative Approval

Signed | s |: Michele Schwedhelm
 Title: Executive Director