

Vermont EMS PPE (Tyvek™ and Hood) Donning and Doffing Checklist for Suspected Patient’s with Ebola

In adherence with CDC’s Guidance on Personal Protective Equipment To Be Used by Healthcare Workers during Management of Patients with Ebola Virus Disease in U.S. Hospitals, Including Procedures for Putting On (Donning) and Removing (Doffing)

The following checklist adheres to the CDC’s guideline and represents the equipment being distributed by Vermont EMS to 911 transporting agencies. The following is a checklist to be used by Vermont EMS in conjunction with the Vermont EMS Ebola Virus Disease Protocol.

PPE must remain in place and be worn correctly for the duration of exposure to potentially contaminated areas. PPE should not be adjusted during patient care or cleaning of the ambulance. If during patient care or cleaning a partial or total breach in PPE occurs, the EMS provider must disengage when possible and proceed to the doffing checklist immediately. Take your time to don and doff appropriately!

Green Zone—Ebola Free (i.e., outside of the residence for donning purposes) ●

Orange Zone—Transition, goal to be Ebola free, however this may require frequent decontamination ●

Red Zone—Ebola contamination would be expected, this is variable but must be accounted for with each step ●

Donning Checklist



1

Engage Trained Observer: The donning process is conducted under the guidance and supervision of a trained observer who confirms visually that all PPE is serviceable and has been donned successfully. The trained observer will use this written checklist to confirm each step in donning PPE and can assist with ensuring and verifying the integrity of the ensemble. NO exposed skin or hair of the EMS personnel should be visible at the conclusion of the donning process





2

Remove Personal Clothing and Items: If possible, change into scrubs or disposable garments and washable footwear. Remove jewelry, watches, cell phones, pens, radios, etc.



3

Inspect PPE Prior to Donning: Visually inspect the PPE ensemble to be worn to ensure it is in serviceable condition, all required PPE and supplies are available, and that the sizes selected are correct for the EMS provider. The trained observer reviews the donning sequence with the EMS provider before the EMS provider begins, and reads it to the EMS provider in a step-by-step fashion.

**4**

Perform Hand Hygiene: Perform hand hygiene with ABHR. When using ABHR, allow hands to dry before moving to next step.

**5**

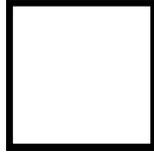
Put on Inner Gloves: Put on first pair of gloves.

**6**

Put on Boot or Shoe Covers.



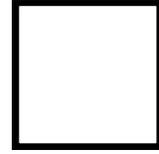
7



Put on Tyvek™ Coverall (without integrated hood): Put on coverall. Ensure coverall is large enough to allow unrestricted freedom of movement. Secure front zipper to the top and make sure toggle is accessible. Ensure cuffs of inner gloves are tucked under the sleeve of the Tyvek™ coverall.



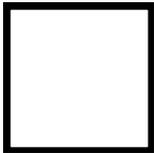
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Put on N95 Respirator: Put on N95 respirator. Complete a user seal check.



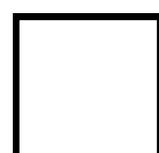
9



Pull on Surgical Hood: Over the N95 respirator, place a surgical hood that covers all of the hair and the ears, and ensures that it extends past the neck to the shoulders. Be certain that hood completely covers the ears and neck. Tie hood to ensure fit. The train observer may tie the hood if needed.



10



Put on Outer Apron (if used-if not skip to step 11): Put on full-body apron to provide additional protections to the front of the body against exposure to body fluids or excrement from the patient.



11

Put on Outer Gloves: Put on a second pair of gloves with extended cuffs. Ensure the cuffs are pulled over the sleeves of the Tyvek™ coverall.



12

Put on Face Shield: Put on a full face shield over the N95 respirator and integrated hood to provide additional protection to the front and sides of the face, including skin and eyes.



13

Verify: After completing the donning process, the integrity of the ensemble is verified by the trained observer. The EMS provider should be comfortable and able to extend the arms, bend at the waist and go through a range of motions to ensure there is sufficient range of movement while all areas of the body remains covered.



14

Disinfect Outer Gloves: Disinfect outer gloved hands with ABHR. Allow to dry prior to patient contact.



Doffing Checklist

Recommended PPE for Trained Observer during Observation of PPE Doffing:

1. Single-use, disposable fluid resistant or impermeable Tyvek™ coverall
2. Single-use, disposable full face shield
3. Single-use, disposable nitrile examination gloves with extended cuffs. Two pairs of gloves should be worn. At a minimum, outer gloves should have extended cuffs
4. Single-use, disposable fluid-resistant or impermeable shoe covers.

******Trained observers should don and doff selected PPE according to same procedures. When the trained observer assists with PPE doffing, then the trained observer should disinfect outer-gloved hands using hand hygiene (ABHR).******

Doffing will take over 20 minutes to be done correctly. Please take your time to do it safely!

PPE doffing is performed in the designated PPE removal area at the receiving hospital. Place all PPE waste in a **leak-proof infection waste container**.



Engage Trained Observer: The doffing process is conducted under the supervision of a trained observer, who reads aloud each step of this procedure and confirms visually that the PPE has been removed properly. Prior to doffing PPE, the trained observer must remind EMS providers to avoid reflexive actions that may put them at risk, such as touching their face. Post this instruction and repeat it verbally during doffing. Although the trained observer should minimize touching EMS providers or their PPE during the doffing process, the trained observer may assist with removal of specific components of PPE as outlined below. The trained observer disinfects the outer-gloved hands immediately after handling any EMS provider PPE.





Inspect: Inspect the PPE to assess for visible contamination, cuts, or tears before starting to remove. If any PPE is visibly contaminated, then disinfect using an EPA-registered disinfectant wipe.



3

Disinfect Outer Gloves: Disinfect outer-gloved hands with either an EPA-registered disinfectant wipe or ABHR.



4

Remove Apron (if used-if not skip to step 7): Remove and discard apron taking care to avoid contaminating gloves by rolling the apron from the inside to outside.



5

Inspect: Following apron removal, inspect the PPE ensemble to assess for visible contamination or cuts or tears. If visibly contaminated, then disinfect affected PPE using an EPA-registered disinfectant wipe.

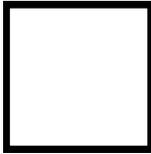


6

Disinfect Outer Gloves: Disinfect outer-gloved hands with either an EPA-registered disinfectant wipe or ABHR.

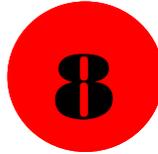


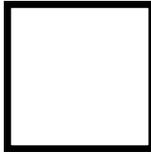




Remove Outer Gloves: Remove and discard outer gloves taking care not to contaminate inner gloves during removal process.



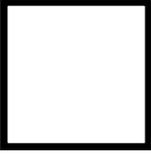




Inspect and Disinfect Inner Gloves: Inspect the inner gloves' outer surfaces for visible contamination, cuts, or tears. If an inner glove is visibly soiled, cut, or torn, then disinfect the glove with either an EPA-registered disinfectant wipe or ABHR. Then remove the inner gloves, perform hand hygiene with ABHR on bare hands, and don a clear pair of gloves. If no visible contamination, cuts, or tears are identified on the inner gloves, then disinfect the inner-gloved hands with either an EPA-registered disinfectant wipe or ABHR.



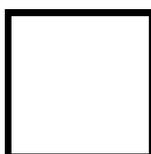




Remove Face Shield: Remove the full face shield by tilting the head slightly forward, grabbing the rear strap and pulling it over the head, gently allowing the face shield to fall forward and discard. Avoid touching the front surface of the face shield.







Disinfect Inner Gloves: Disinfect inner gloves with either an EPA-registered disinfectant wipe or ABHR.





11

Remove Surgical Hood: Untie surgical hood, gently remove, and discard. The trained observer may assist with unfastening the hood. ***If the Trained Observer does assist, the Trained Observer Performs Hand Hygiene.***





12

Disinfect Inner Gloves: Disinfect inner gloves with either an EPA-registered disinfectant wipe or ABHR.





13

Remove Tyvek™ Coverall WITH TRAINED OBSERVER to minimize contamination by trapping contamination inside the Tyvek™ Coverall:

1. The provider unzips the coverall completely:





14

Remove Tyvek™ Coverall WITH TRAINED OBSERVER:

2. Trained observer helps to roll the coverall into itself, while the provider assists by shrugging off the coverall:





15

Remove Tyvek™ Coverall WITH TRAINED OBSERVER:

3. Observer steps back while providers continues to remove. When feasible, the provider may sit in a chair to facilitate removal:





16

Trained Observer Performs Hand Hygiene, Removes Outer Gloves, and Performs Hand Hygiene:





17

Disinfect Inner Gloves: Disinfect inner gloves with either an EPA-registered disinfectant wipe or ABHR.





18

Remove Boot or Shoe Covers: While sitting down, remove and discard boot or shoe covers. Be mindful when removing boot or shoe covers to move from red to orange zone in your doffing area—one set of chux to another.





19

Disinfect and Change Inner Gloves: Disinfect inner gloves with either an EPA-registered disinfectant wipe or ABHR. Remove and discard gloves taking care not to contaminate bare hands during removal process. Perform hand hygiene with ABHR. Don a new pair of inner gloves.






20

Remove N95 Respirator: Remove the N95 respirator by tilting the head slightly forward, grasping first the bottom tie or elastic strap, then the top tie or elastic strap, and remove without touching the front of the N95 respirator. Discard N95 respirator.





21

Disinfect Inner Gloves: Disinfect inner gloves with either an EPA-registered disinfectant wipe or ABHR.



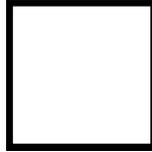


22

Disinfect Washable Shoes: Sitting on a new clean surface (e.g., second clean chair, clean side of a bench) use an EPA-registered disinfectant wipe to wipe down every external surface of the washable shoes including the bottom of the shoes. Be mindful when disinfecting to move from orange zone to green zone in your doffing area—one set of chux to the floor.



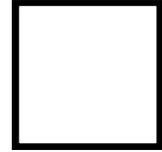
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Disinfect and Remove Inner Gloves: Disinfect inner-gloved hands with either an EPA-registered disinfectant wipe or ABHR. Remove and discard gloves taking care not to contaminate bare hands during removal process.



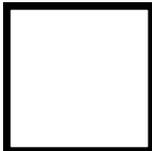
24



Perform Hand Hygiene: Perform hand hygiene with ABHR.



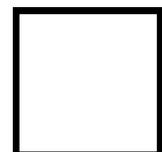
25



Inspect: Perform a final inspection of EMS provider for any indication of contamination of the garments. If contamination is identified, immediately inform occupational health provider or supervisor before exiting PPE doffing area.



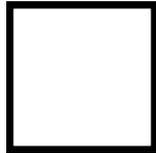
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Garments: EMS provider can leave PPE doffing area wearing their garments. The EMS provider should wash his/her hands and face with soap and water at first opportunity.



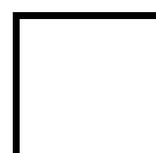
25



Shower: Showers are recommended.



26



Protocol Evaluation/Medical Assessment:

There should be a review of the patient care activities performed to identify any concerns about care protocols and to record EMS providers level of fatigue.

