

# **Interim PPE guidelines for managing Ebola virus disease patients**

**April 2015**

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For more information contact:

Communicable Diseases Unit, Chief Health Officer Branch, Department of Health, PO Box 2368, Fortitude Valley BC, QLD 4006, email [CDUadministration@health.qld.gov.au](mailto:CDUadministration@health.qld.gov.au), phone (07) 33289728.

An electronic version of this document is available at [www.health.qld.gov.au/ebola](http://www.health.qld.gov.au/ebola)

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## Purpose

This guideline provides recommendations regarding best practice for the selection of personal protective equipment (PPE) and the processes for putting it on (donning) and removing it (doffing).

## Scope

This guideline provides information for all employees, contractors and consultants within Queensland Health (QH) Hospital and Health Services who in the course of their work may have contact with a suspected, probable or confirmed case of Ebola virus disease (EVD) or a potentially contaminated environment.

## PPE guideline for managing patients with EVD

PPE is one of the key elements of preventing the spread of communicable diseases including EVD to healthcare workers (HCW). Strict compliance with the documented processes for donning and removing PPE is critical to staff safety. This document provides recommendations regarding PPE use, and documents the steps HCW should follow when using these items.

The following principles should be adhered to in relation to PPE:

- Facilities should select **one** standardised set of PPE to maintain consistency.
- PPE combinations should be selected to ensure HCW have no skin exposed\*.
- The HCW should be comfortable and ensure that there is sufficient range of movement for all clinical contingencies. The HCW should go through a range of movements to ensure there is sufficient range of movement while all areas of the body remain covered.
- PPE should meet relevant Australian Standards and be provided in a range of sizes.
- All PPE should be disposable where possible.
- PPE training should include the correct application and fit checking of the P2/N95 respirator. A fit check should be performed each time a P2/N95 respirator is applied.
- Facilities need written protocols that clearly detail the procedures for donning and removing PPE.
- Donning and removing PPE should be conducted in clearly designated areas that allow for clear separation of clean and potentially contaminated areas.
- Facilities should have processes in place to manage PPE fatigue including heat stress.
- Training should involve repetition of donning and removing PPE until the HCW is deemed competent and they are confident with both processes. This training should be repeated periodically to ensure staff competency remains current.

\* It should be noted that facial/neck skin may be visible but the intent of PPE is to prevent exposure of this skin to contaminants, i.e. it is visible but not exposed.

- A trained person must supervise the donning and removing process every time. In this document, this person is referred to as a trained observer.
- The trained observer should not undertake patient care and should monitor the HCW who is providing care to the patient to ensure that any breaches in PPE are identified promptly and corrective action taken.
- Facilities may wish to consider undertaking training using a fluorescent marker.

The following PPE recommendations are based on those published in the Centers for Disease Control (CDC) document [Guidance on personal protective equipment](#) to be used by HCW during management of patients with Ebola Virus Disease in U.S. hospitals, including procedures for putting on (donning) and removing (doffing). This is available from [www.cdc.gov](http://www.cdc.gov).

Facilities should select **ONE** of the following options only and apply this across the entire facility to ensure consistency.

### Option 1 – Gown use

- P2/N95 respirator
- Full-length face shield (this can be applied over prescription glasses)
- Two pairs of non-sterile long cuff gloves (nitrile gloves are preferable over latex)
- Long sleeved fluid resistant or impermeable gown that extends to at least mid-calf
- Hood that covers all of the hair and the ears and extends past the neck to the shoulders
- Fluid resistant or impermeable boot covers that extend to at least mid-calf.

### Option 2 – Coverall use

- P2/N95 respirator
- Full-length face shield (this can be applied over prescription glasses)
- Two pairs of non-sterile long cuff gloves (nitrile gloves are preferable over latex)
- Fluid resistant or impermeable coveralls with or without an integrated head covering
- Hood that covers all of the hair and the ears and extends past the neck to the shoulders if the coveralls do not have an integrated hood
- Fluid resistant or impermeable boot covers that extend to at least mid-calf.

### Additional considerations

- The HCW should consider the use of a fluid resistant or impermeable apron that covers the torso to the level of the mid-calf if the patient is vomiting, has diarrhoea or is bleeding.
- Powered air purifying respirator (PAPR) with a full face shield, helmet or head piece should also be considered. If these are used they should include a single-use hood that extends to the shoulders. Manufacturer's instructions should be followed for decontamination of all re-useable components. The process for using PAPRs is not addressed in this document. If facilities choose to utilise these, staff should follow

the recommendations including donning and removal instructions on the [CDC website](http://www.cdc.gov) at available [www.cdc.gov](http://www.cdc.gov).

## Trained observer PPE

- Long sleeved fluid resistant or impermeable gown that extends to at least mid-calf
- Full-length face shield
- Two pairs of non-sterile long cuff gloves
- Shoe covers.

EVD is traditionally managed using contact and droplet precautions, however the recommendation for airborne PPE is to further mitigate risk.

At the commencement of their shift the HCW should change into disposable scrubs (or re-useable if a laundering process has been established) and dedicated washable (plastic or rubber) footwear. All personal items should be removed (e.g. jewellery, watches, lanyards, mobile phones, pagers, pens). Hair should be tied back out of the face and eyes; this should include fringes.

If a breach of PPE occurs during the course of patient care the HCW should immediately and safely stop any current tasks, leave the patient care area and safely remove PPE under the supervision of the trained observer, and wash the area as soon as possible with alcohol based hand rub (ABHR) or water if mucous membranes are exposed.

## Donning process

### Option 1 – Gown use donning process

1. The donning process is to be conducted in a designated area, separate from the PPE removal area, under the supervision of a trained observer who observes that the PPE is serviceable and correctly donned resulting in no exposed skin. A checklist should be utilised—see Appendix 1.
2. The trained observer reviews the donning sequence with the HCW before the HCW begins and reads it to the HCW in a step-by-step fashion as each item of PPE is donned. All PPE should be visually inspected to ensure:
  - all required items are available
  - all items are complete, intact and serviceable condition
  - sizes selected are correct for the HCW.
3. The HCW performs hand hygiene with alcohol based hand rub (ABHR). When using ABHR, allow hands to dry before moving to the next step.
4. The HCW puts on boot covers that extend to at least mid-calf.
5. The HCW puts on a gown, ensuring the gown is large enough to allow unrestricted freedom of movement without gaping.

6. The HCW puts on a P2/N95 respirator. A fit check should be performed according to the manufacturer's instructions. Further information on [P2/N95 mask fit checking](#) is available at [www.health.qld.gov.au](http://www.health.qld.gov.au).
7. Over the P2/N95 respirator, the HCW dons a hood that covers all of the hair and the ears, and ensures that it extends past the neck to the shoulders. Be certain that the hood completely covers the ears and neck.
8. If the HCW is using a plastic apron it should be donned at this stage of the process. Put on apron to provide additional protection to the front of the body against exposure to blood, body fluids or excrements from the patient.
9. The HCW should apply a full face shield over the P2/N95 respirator and hood to provide additional protection to the front and sides of the face, including skin and eyes.
10. The HCW then puts on two pairs of gloves. Ensure cuffs of the first pair (inner gloves) are tucked under the sleeve of the gown. Ensure that the second pair (outer gloves) is over the cuff/sleeves of the gown.
11. After completing the donning process, the integrity of the ensemble should again be verified by the trained observer. The HCW should be comfortable and able to extend the arms, bend at the waist and go through a range of movements to ensure there is sufficient range of movement while all areas of the body remain covered. A mirror in the room can be useful for the HCW while donning PPE.

## Option 2 – Coverall use donning process

1. The donning process is to be conducted in a designated area, separate from the PPE removal area, under the supervision of a trained observer who observes that the PPE is serviceable and correctly donned resulting in no exposed skin. A checklist should be utilised—see Appendix 2.
2. The trained observer reviews the donning sequence with the HCW before the HCW begins and reads it to the HCW in a step-by-step fashion as each item of PPE is donned.
  - all required items are available
  - all items are complete, intact and serviceable condition
  - sizes selected are correct for the HCW.
3. Perform hand hygiene with alcohol based hand rub (ABHR). When using ABHR, allow hands to dry before moving to next step.
4. Put on boot covers that extend to at least mid-calf.
5. Put on coveralls. Ensure coverall is large enough to allow unrestricted freedom of movement.
6. Put on P2/N95 respirator. Perform a fit check according to the manufacturer's instructions. Further information on [P2/N95 mask fit checking](#) is available at [www.health.qld.gov.au](http://www.health.qld.gov.au).
7. The HCW should now don the head cover:
  - A. If the coverall has an integrated hood the hood must be pulled into place over the top of the P2/N95 respirator ensuring that the hood covers the hair, ears and neck.

- B. If a separate hood is used, don a hood over the P2/N95 respirator. Ensure that it covers all of the hair and the ears, and that it extends past the neck to the shoulders. Be certain that the hood completely covers the ears and neck.
8. If the HCW is using a plastic apron it should be donned at this stage of the process. Put on apron to provide additional protection to the front of the body against exposure to blood, body fluids or excrements from the patient.
  9. Apply full face shield over the P2/N95 respirator and hood to provide additional protection to the front and sides of the face, including skin and eyes.
  10. Put on two pairs of gloves, ensuring that the first pair (inner gloves) is under the cuff of the coverall and that the second pair (outer gloves) are over the cuff/sleeves of the coverall.
  11. After completing the donning process, the integrity of the ensemble should be verified by the trained observer. The HCW should be comfortable and able to extend the arms, bend at the waist and go through a range of movements to ensure there is sufficient range of movement while all areas of the body remain covered. A mirror in the room can be useful for the HCW while donning PPE.

## Trained observer PPE donning process

1. Perform hand hygiene with alcohol based hand rub (ABHR). When using ABHR, allow hands to dry before moving to the next step.
2. Put on gown. Ensure gown is large enough to allow unrestricted freedom of movement.
3. Put on shoe covers.
4. Put on full-length face shield.
5. Put on two pairs of gloves, ensuring that first pair (inner gloves) is under the cuff of the gown and that the second pair (outer gloves) are over the cuff/sleeves of the gown.

## Removal process

### Option 1 – Gown use removal (doffing) process

PPE removal is to be performed in the designated PPE removal area, separate from the PPE donning area. Place all PPE into clinical waste. If Therapeutic Goods Administration (TGA) registered disinfectant wipes are used for decontamination of PPE, including gloves, facilities may consider having the trained observer hand these to the HCW.

1. The removal (doffing) process is conducted under the supervision of a trained observer who reads aloud each step of the procedure, and confirms visually the PPE has been removed properly. See Appendix 1 for a checklist.
  - Prior to removing PPE, the trained observer must remind the HCW to avoid reflexive actions that may put them at risk, such as touching their face or adjusting their hair. Post this instruction and repeat it verbally during removal.



- Although the trained observer should minimise touching the HCW or their PPE during the removal process, the trained observer may assist with removal of specific components of PPE as outlined below (the trained observer must be in PPE). The trained observer disinfects the outer-gloved hands immediately after handling any HCW PPE.
2. The health care worker should exit the patient care area onto an absorbent mat that is secured to the floor and clearly identified as a contaminated area. The mat should be changed at least daily or if visibly contaminated.
  3. The observer and HCW should inspect the PPE to assess for visible contamination, cuts or tears before starting to remove it. If any PPE is visibly contaminated, then disinfect using a TGA registered disinfectant wipe.
  4. Disinfect outer-gloved hands with either a TGA registered disinfectant wipe or ABHR.
  5. If an apron is used it should be removed at this stage of the PPE removal process. Remove and discard apron taking care to avoid contaminating gloves by rolling the apron from inside to outside.
  6. Inspect the PPE ensemble to assess for visible contamination or cuts or tears. If visibly contaminated, then disinfect affected PPE using a TGA registered disinfectant wipe.
  7. Disinfect outer-gloved hands with a TGA registered disinfectant wipe or ABHR.
  8. While sitting down or leaning on an appropriate surface, remove and discard boot covers and step off the mat into a non-contaminated area.
  9. Disinfect outer-gloved hands with either a TGA registered disinfectant wipe or ABHR. Remove and discard outer gloves taking care not to contaminate inner gloves during removal process.
  10. The inner gloves should be inspected for visual contamination, cuts or tears. If an inner glove is visibly soiled, cut or torn, then it should be disinfectant with either a TGA registered disinfectant wipe or ABHR. The soiled, cut or torn inner gloves are then removed and discarded taking care not to contaminate bare hands during the removal process. Hand hygiene with ABHR on bare hands is performed, and a clean pair of gloves is donned. If no visible contamination, cuts or tears are identified on the inner gloves, then the inner-gloved hands are disinfectant with either a TGA registered disinfectant wipe or ABHR.
  11. 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; or grab the distal ends of the arms, pull away from the face and discard. Avoid touching the front surface of the face shield.
  12. Disinfect inner gloves with either a disinfectant wipe or ABHR.
  13. A. Surgical hood with ties: Unfasten hood, gently remove and discard. The trained observer may assist with unfastening the hood if required.  
B. Pullover hood: The HCW should tilt the head down, grasp the hood at the crown of the head and pull the hood over the head in a slow continuous movement.
  14. Disinfect inner gloves with either a TGA registered disinfectant wipe or ABHR.
  15. Remove gown and discard it. Depending on gown design and location of fasteners, the HCW can either untie fasteners, receive assistance by the trained

observer to unfasten the gown or gently break fasteners. Avoid contact of scrubs or disposable garments with outer surface of gown during removal. Pull gown away from body, rolling inside out and ensure that your clean inner-gloved hands are touching only the inside of the gown.

16. Disinfect inner gloves with either a TGA 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.
17. Remove the P2/N95 respirator by tilting the head slightly forward, grasping first the bottom elastic strap, then the top elastic strap, and remove without touching the front of the P2/N95 respirator. Discard P2/N95 respirator into clinical waste.
18. Disinfect inner gloves with either a TGA registered disinfectant wipe or ABHR.
19. If the HCW is wearing prescription glasses they should don a new pair of gloves and remove and clean their glasses with a TGA registered disinfectant wipe and allow to dry before re-applying. Disinfect inner gloves with either a TGA registered disinfectant wipe or ABHR.
20. Sitting on a clean chair (chairs used during PPE removal should be clearly labelled and decontaminated after use) use a TGA registered disinfectant wipe to wipe down every external surface of the washable shoes.
21. Disinfect inner gloves with either a TGA registered disinfectant wipe or ABHR. Remove and discard gloves taking care not to contaminate bare hands during removal process.
22. Perform hand hygiene with ABHR.
23. Perform a final inspection of HCW for any indication of contamination of the surgical scrubs or disposable garments. Facilities should have a process that includes a designated person that the HCW should immediately inform if contamination is identified.
24. HCW can leave PPE removal area wearing dedicated washable footwear and surgical scrubs or disposable garments.
25. Showers should be provided for HCW to use at the end of their shift if desired and for situations where there has been a breach in the HCW PPE.

## Option 2 – Overall use removal (doffing) process

PPE removal is to be performed in the designated PPE removal area, separate from the PPE donning area. Place all PPE into clinical waste. If TGA registered disinfectant wipes are used for decontamination of PPE including gloves, facilities may consider having the trained observer hand these to the HCW.

1. The removal (doffing) process is conducted under the supervision of a trained observer who reads aloud each step of the procedure and confirms visually that the PPE has been removed properly. See Appendix 2 for a checklist.
  - Prior to removing PPE, the trained observer must remind the HCW to avoid reflexive actions that may put them at risk, such as touching their face or adjusting their hair. Post this instruction and repeat it verbally during removal.

- Although the trained observer should minimise touching the HCW or their PPE during the removal process, the trained observer may assist with removal of specific components of PPE as outlined below (the trained observer must be in PPE). The trained observer disinfects the outer-gloved hands immediately after handling any HCW PPE.
2. The HCW should exit the patient care area onto an absorbent mat that is secured to the floor and clearly identified as a contaminated area. The mat should be changed at least daily or if visibly contaminated.
  3. The trained observer and HCW should inspect the PPE to assess for visible contamination, cuts or tears before starting to remove. If any PPE is visibly contaminated, then disinfect using a disinfectant wipe.
  4. Disinfect outer-gloves with either a TGA registered disinfectant wipe or ABHR.
  5. If an apron is used it should be removed at this stage of the PPE removal process. Remove and discard apron taking care to avoid contaminating gloves by rolling the apron from inside to outside.
  6. Inspect the PPE ensemble to assess for visible contamination, cuts or tears. If visibly contaminated, then disinfect affected PPE using a disinfectant wipe.
  7. Disinfect outer gloves with either a TGA registered disinfectant wipe or ABHR. Remove and discard outer gloves taking care not to contaminate inner gloves during removal process.
  8. The inner gloves should be inspected for visual contamination, cuts or tears. If an inner glove is visibly soiled, cut or torn, then it should be disinfect with either a TGA registered disinfectant wipe or ABHR. The soiled, cut or torn inner gloves are then removed and discarded taking care not to contaminate bare hands during the removal process. Hand hygiene with ABHR on bare hands is performed, and a clean pair of gloves is donned. If no visible contamination, cuts or tears are identified on the inner gloves, then the inner-gloved hands are disinfect with either a TGA registered disinfectant wipe or ABHR.
  9. 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; or grab the distal ends of the arms, pull away from the face and discard. Avoid touching the front surface of the face shield.
  10. Disinfect inner gloves with either a TGA registered disinfectant wipe or ABHR.
  11. A. To remove coverall, tilt head back to reach zipper or fasteners. Unzip or unfasten coverall completely and remove hood by grasping it with both hands, lift up and away from the head turning it inside out before rolling down coveralls and turning them inside out. Avoid contact of scrubs with outer surface of coverall during removal, and ensure that your clean inner-gloved hands are touching only the inside of the coverall.  
 B. If a separate hood cover is used, the HCW should tilt the head down, grasp the hood at the crown of the head and pull the hood over the head in a slow continuous movement. Disinfect inner gloves with either a TGA registered disinfectant wipe or ABHR. To remove coverall, tilt head back to reach zipper or fasteners. Unzip or unfasten coverall completely. Roll down coveralls and turn them inside out. Avoid contact of scrubs with outer surface of coverall during

removal, and ensure that your clean inner-gloved hands are touching only the inside of the coverall.

12. Disinfect inner gloves with either a TGA registered disinfectant wipe or ABHR.
13. While sitting down or leaning on an appropriate surface, remove and discard boot covers and step off the mat into a non-contaminated area.
14. Disinfect inner gloved hands with a TGA registered disinfectant wipe or ABHR.
15. If a chair was used to assist the HCW to remove their boot/leg covers it should be wiped over with a TGA registered disinfectant wipe and allowed to dry.
16. Disinfect inner gloves with either a TGA 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.
17. Remove the P2/N95 respirator by tilting the head slightly forward, grasping first the bottom elastic strap, then the top elastic strap, and remove without touching the front of the P2/N95 respirator. Discard P2/N95 respirator into clinical waste.
18. Disinfect inner gloves with either a TGA registered disinfectant wipe or ABHR.
19. If the HCW is wearing prescription glasses they should don a new pair of gloves and remove and clean their glasses with a TGA registered disinfectant wipe and allow to dry before re-applying. Disinfect inner gloves with either a TGA registered disinfectant wipe or ABHR.
20. Sitting on a clean chair (chairs used during PPE removal should be clearly labelled and decontaminated after use) use a TGA registered disinfectant wipe to wipe down every external surface of the washable shoes.
21. Disinfect inner-gloves with either a TGA registered disinfectant wipe or ABHR. Remove and discard gloves taking care not to contaminate bare hands during removal process.
22. Perform hand hygiene with ABHR.
23. Perform a final inspection of HCW for any indication of contamination of the surgical scrubs or disposable garments. Facilities should have a process that includes a designated person that the HCW should immediately inform if contamination is identified.
24. HCW can leave PPE removal area wearing dedicated washable footwear and surgical scrubs or disposable garments.
25. Showers should be provided for HCW to use at the end of their shift if desired and for situations where there has been a breach in the HCW PPE.

## **Trained observer PPE removal process**

1. Remove shoe covers and discard.
2. Disinfect outer-gloves with a TGA registered disinfectant wipe or ABHR.
3. Remove and discard outer gloves taking care not to contaminate inner gloves during removal process.
4. 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 a registered disinfectant wipe or ABHR. Then remove the inner gloves, perform

hand hygiene with ABHR on bare hands and don a clean pair of gloves. If no visible contamination, cuts or tears are identified on the inner gloves, then disinfect the inner-gloved hands with either a TGA registered disinfectant wipe or ABHR.

5. 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 or grab the distal ends of the arms, pull away from the face and discard. Avoid touching the front surface of the face shield.
6. Remove gown and discard. Depending on gown design and location of fasteners, the HCW can either untie fasteners or gently break fasteners. Avoid contact of scrubs or disposable garments with outer surface of gown during removal. Pull gown away from body, rolling inside out and ensure that your clean inner-gloved hands are touching only the inside of the gown.
7. Remove gown and discard.
8. Disinfect inner-gloved hands with either a TGA registered disinfectant wipe or ABHR. Remove and discard gloves taking care not to contaminate bare hands during removal process.
9. Perform hand hygiene with ABHR.

## Review

This guideline is due for review on: 30/04/2016

**Date of last review:** N/A

**Supersedes:** Version 1: November 2014

## Business area contact

Communicable Diseases Unit, Chief Health Officer Branch

## Approval and implementation

### Policy custodian:

Senior Director, Communicable Diseases Unit, Chief Health Officer Branch

### Approving officer:

Dr Sonya Bennett

Senior Director, Communicable Diseases Unit, Chief Health Officer Branch

**Approval date:** 1 May 2015

**Effective from:** 1 May 2015

## Version control

Version	Date	Prepared by	Comments
1.0	11/11/2014	SHECC EVD IMT	New document
2.0	30/04/2015	SHECC EVD IMT	Addition of alternate hood removal process

## Appendix 1 PPE donning and removal checklist: Gown option

### Donning:

1.  HCW is wearing scrubs and dedicated washable footwear, has removed personal items (watch, jewellery etc.) and has hair tied back and out of eyes.
2.  Inspect PPE prior to donning to ensure it is intact and serviceable.
3.  Perform hand hygiene.
4.  Put on leg/boot covers.
5.  Put on gown.
6.  Put on P2/N95 respirator. Perform a fit check.
7.  Put on hood and ensure that the ears and neck are covered.
8.  Put on apron if used (i.e. if gross contamination with body fluid is anticipated).
9.  Put on face shield.
10.  Put on two pairs of gloves, ensuring that the first pair are under the cuff of the gown and the second pair are over the cuff of the gown.
11.  Verify integrity of PPE ensemble and that all skin is covered.

### Removing:

1.  The HCW exits the patient care area onto an absorbent mat that is identified as the contaminated area.
2.  Inspect PPE to check it is intact and identify and remove any gross contamination with a TGA registered disinfectant wipe.
3.  Disinfect outer gloves with a TGA registered disinfectant wipe or ABHR.
4.  Remove apron if used, taking care not to contaminate gloves by rolling the apron from inside to outside.
5.  Inspect remaining PPE after apron removal to ensure it is intact and remove any visible contamination with TGA registered disinfectant wipe.
6.  Disinfect outer gloves with TGA registered disinfectant wipe ABHR.
7.  HCW removes shoe covers and steps off the mat into a non-contaminated area.
8.  Disinfect and remove outer gloves ensuring inner gloves are not contaminated in the process.
9.  Inspect and disinfect inner gloves. If inner glove is soiled or torn remove inner gloves, perform hand hygiene and replace with new set of gloves.
10.  Remove face shield by tilting the head forward grabbing the rear strap and pulling over the head allowing the shield to fall forward and discard or grab the distal ends of the arms, pull away from the face and discard. Avoid touching the front surface of the shield.
11.  Disinfect inner gloves with TGA registered disinfectant wipe or ABHR.

12.  Remove hood.
  - A. If a surgical hood with ties is used: Unfasten hood, gently remove and discard. The trained observer may assist with unfastening the hood if required.
  - B. If a pullover hood is used: The HCW should tilt the head down, grasp the hood at the crown of the head and pull the hood over the head in a slow continuous movement.
13.  Disinfect inner gloves with a TGA registered disinfectant wipe or ABHR.
14.  Remove gown: untie or break fasteners and pull gown away from body rolling inside out and ensure that your clean inner-gloved hands are touching only the inside of the gown.
15.  Disinfect and change inner gloves being careful not to contaminate bare hands during glove removal. Perform hand hygiene and don new pair of gloves.
16.  Remove P2/N95 respirator by holding the elastic straps. Do not touch the front of the P2/N95 respirator.
17.  Disinfect inner gloves with a TGA registered disinfectant wipe or ABHR.
18.  If the HCW is wearing prescription glasses they should don a new pair of gloves and remove and clean their glasses with a TGA registered disinfectant wipe and allow to dry before re-applying. Disinfect inner gloves with either a TGA registered disinfectant wipe or ABHR.
19.  While sitting on a designated chair, disinfect washable footwear by wiping all external surfaces with a TGA registered disinfectant wipe.
20.  Disinfect and remove inner gloves.
21.  Perform hand hygiene.
22.  Inspect HCW to ensure no contamination of the surgical scrubs.
23.  The HCW should describe patient care activities performed and identify any exposure concerns.
24.  HCW can now leave PPE removal area and shower if desired and don uniform/clothes.

Patient care activities:

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Staff member name: \_\_\_\_\_

Date: \_\_\_\_\_



## Appendix 2 PPE donning and removal checklist: Coverall option

### Donning:

1.  HCW is wearing scrubs and dedicated washable footwear, has removed personal items (watch, jewellery etc.) and has hair tied back and out of eyes.
2.  Inspect PPE prior to donning to ensure it is intact and serviceable.
3.  Perform hand hygiene.
4.  Put on boot covers.
5.  Put on coveralls.
6.  Put on P2/N95 respirator. Perform a fit check.
7.  Put on hood of coveralls or separate hood and ensure that the ears and neck are covered.
8.  Put on apron if used (i.e. if gross contamination with body fluid is anticipated).
9.  Put on face shield.
10.  Put on two pairs of gloves, ensuring that the first pair are under the cuff of the coveralls and the second pair are over the cuff of the coveralls.
11.  Verify integrity of PPE ensemble and that all skin is covered.

### Removing:

1.  The HCW exits the patient care area onto an absorbent mat that is identified as the contaminated area.
2.  Inspect PPE to check it is intact and identify and remove any gross contamination with a TGA registered disinfectant wipe.
3.  Disinfect outer gloves with a TGA registered disinfectant wipe or ABHR.
4.  Remove apron if used, taking care not to contaminate gloves by rolling the apron from inside to outside.
5.  Inspect remaining PPE after apron removal to ensure it is intact and remove any visible contamination with TGA registered disinfectant wipe.
6.  Disinfect and remove outer gloves ensuring inner gloves are not contaminated in the process.
7.  Inspect and disinfect inner gloves. If inner glove is soiled or torn remove inner gloves, perform hand hygiene and replace with new set of gloves.
8.  Remove face shield by tilting the head forward grabbing the rear strap and pulling over the head allowing the shield to fall forward and discard; or grab the distal ends of the arms, pull away from the face and discard. Avoid touching the front surface of the shield.
9.  Disinfect inner gloves with TGA registered disinfectant wipe or ABHR.
10.  A: Remove coverall: tilt head back to reach zipper or fastener. Unzip/unfasten coverall completely and remove integrated hood by grasping it with both hands at the crown of the head, lift up and away from the head, turning it inside out before rolling down coveralls and turning them inside out. Avoid

contact between scrubs and the outside of the coverall. Ensure that your clean inner gloved hands are touching only the inside of the coverall.

B: If a separate hood cover is used, the HCW should tilt the head down, grasp the hood at the crown of the head and pull the hood over the head in a slow continuous movement. Disinfect inner gloves with either a TGA registered disinfectant wipe or ABHR. To remove coverall, tilt head back to reach zipper or fasteners. Unzip or unfasten coverall completely. Roll down coveralls and turn them inside out. Avoid contact of scrubs with outer surface of coverall during removal, and ensure that your clean inner-gloved hands are touching only the inside of the coverall.

11.  Disinfect inner gloves with TGA registered disinfectant wipe or ABHR.
12.  While sitting down or leaning on an appropriate surface, HCW removes shoe/boot covers and steps off the mat into a non-contaminated area.
13.  Disinfect inner gloves with TGA registered disinfectant wipe or ABHR.
14.  If a chair was used to assist the HCW to remove their boot/leg covers it should be wiped over with a TGA registered disinfectant wipe and allowed to dry.
15.  Disinfect and change inner gloves being careful not to contaminate bare hands during glove removal. Perform hand hygiene and don new pair of gloves.
16.  Remove P2/N95 respirator by holding the elastic straps. Do not touch the front of the P2/N95 respirator.
17.  Disinfect inner gloves with a TGA registered disinfectant wipe or ABHR.
18.  If the HCW is wearing prescription glasses they should don a new pair of gloves and remove and clean their glasses with a TGA registered disinfectant wipe and allow to dry before re-applying. Disinfect inner gloves with either a TGA registered disinfectant wipe or ABHR.
19.  Sitting on another chair use a TGA registered disinfectant wipe to wipe down every external surface of the washable shoes.
20.  Disinfect and remove inner gloves.
21.  Perform hand hygiene.
22.  Inspect HCW to ensure no contamination of the surgical scrubs.
23.  The HCW should describe patient care activities performed and identify any exposure concerns.

HCW can now leave PPE removal area and shower if desired and don uniform/clothes.

Patient care activities:

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Staff member name: \_\_\_\_\_

Date: \_\_\_\_\_

## Appendix 3

# PPE donning and removal checklist: Trained Observer

### Donning:

1.  Perform hand hygiene with alcohol based hand rub (ABHR). When using ABHR, allow hands to dry before moving to the next step.
2.  Put on gown. Ensure gown is large enough to allow unrestricted freedom of movement.
3.  Put on shoe covers.
4.  Put on full-length face shield.
5.  Put on two pairs of gloves, ensuring that first pair (inner gloves) is under the cuff of the gown and that the second pair (outer gloves) are over the cuff/sleeves of the gown.

### Removing:

1.  Remove shoe covers and discard.
2.  Disinfect outer-gloves with a TGA registered disinfectant wipe or ABHR.
3.  Remove and discard outer gloves taking care not to contaminate inner gloves during removal process.
4.  Inspect and disinfect inner gloves. If inner glove is soiled or torn remove inner gloves, perform hand hygiene and replace with new set of gloves.
5.  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 or grab the distal ends of the arms, pull away from the face and discard. Avoid touching the front surface of the face shield.
6.  Remove gown and discard. Depending on gown design and location of fasteners, the HCW can either untie fasteners, receive assistance by the trained observer to unfasten the gown or gently break fasteners. Avoid contact of scrubs or disposable garments with outer surface of gown during removal. Pull gown away from body, rolling inside out and ensure that your clean inner-gloved hands are touching only the inside of the gown.
7.  Remove gown and discard.
8.  Disinfect inner-gloved hands with either a TGA registered disinfectant wipe or ABHR. Remove and discard gloves taking care not to contaminate bare hands during removal process.
9.  Perform hand hygiene with ABHR.

