

Ebola

Preparedness:

Staff Education and Training

Current Situation:

- Ebola Virus Disease (EVD) epidemic continues to rage in the West African Countries of Liberia, Sierra Leone and Guinea, with additional cases in Spain and the United States.

Ebola, previously known as Ebola hemorrhagic fever, is a rare and deadly disease caused by infection with one of the Ebola virus strains. Ebola can cause disease in humans and nonhuman primates (monkeys, gorillas, and chimpanzees).

Ebola is caused by infection with a virus of the family *Filoviridae*, genus *Ebolavirus*. There are five identified Ebola virus species, four of which are known to cause disease in humans: Ebola virus (*Zaire ebolavirus*); Sudan virus (*Sudan ebolavirus*); Taï Forest virus (*Taï Forest ebolavirus*, formerly *Côte d'Ivoire ebolavirus*); and Bundibugyo virus (*Bundibugyo ebolavirus*). The fifth, Reston virus (*Reston ebolavirus*), has caused disease in nonhuman primates, but not in humans.

Ebola viruses are found in several African countries. Ebola was first discovered in 1976 near the Ebola River in what is now the Democratic Republic of the Congo. Since then, outbreaks have appeared sporadically in Africa.

The natural reservoir host of Ebola virus remains unknown. However, on the basis of evidence and the nature of similar viruses, researchers believe that the virus is animal-borne and that bats are the most likely reservoir. Four of the five virus strains occur in an animal host native to Africa.

Because the natural reservoir host of Ebola viruses has not yet been identified, the manner in which the virus first appears in a human at the start of an outbreak is unknown. However, researchers believe that the first patient becomes infected through contact with an infected animal.

When an infection does occur in humans, the virus can be spread in several ways to others. Ebola is spread through direct contact (through broken skin or mucous membranes in, for example, the eyes, nose, or mouth) with:

- blood or body fluids (including but not limited to urine, saliva, sweat, feces, vomit, breast milk, and semen) of a person who is sick with Ebola
- objects (like needles and syringes) that have been contaminated with the virus
- infected animals

Ebola is not spread through the air or by water, or in general, by food. However, in Africa, Ebola may be spread as a result of handling bushmeat (wild animals hunted for food) and contact with infected bats. There is no evidence that mosquitos or other insects

can transmit Ebola virus. Only mammals (for example, humans, bats, monkeys, and apes) have shown the ability to become infected with and spread Ebola virus

- US cases continue to fuel anxiety nationwide regarding preparedness after the disease spread to healthcare workers.
- St. Joseph's has had a working group following this situation for the last several weeks.
- Screening has been established for all patients entering our system, including the Emergency Department, Urgent Care, and physicians' offices as part of the registration and check in process.

This educational packet contains the following items:

1. Policy/ procedures as they relate to standard precautions, donning and doffing biohazard level C PPE for those areas caring for EVD patients
2. Screening questions and Epic documentation
3. Plan for staff education and return demonstration
4. Steps to follow if you encounter a patient with EVD

The education plan for mandatory PPE training for ALL staff who encounter a patient is as follows:

1. Complete the HealthStream education.
2. Attend educational session held in L100A anytime from 0700 Tuesday, 10/21 to 0700 on Friday, 10/24.
3. If applicable to your area, participate in scheduled drills.

If a patient screens positive at a point of entry, there are 3 C's to follow:

- **Contain** – quickly move patients who screen positive to the areas pre-designated containment area away from other patients and staff.
- **Call** – Contact a care giver or the Administrative Coordinator immediately
- **Clean** – Decontaminate areas the patient may have touched with bleach wipes or other hospital approved cleaning agents (the containment area will be cleaned after the patient is moved by specially trained environmental service personnel)

Internal patient movement – Points of Entry to Designated Isolation and Treatment area

1. Patients will be moved via the most direct route, consistent with all applicable infection control and PPE standards to the isolation room ESI-314 in the emergency department for further evaluation and treatment.

2. **Main Lobby** – Patients screening positive will be placed in the touchdown area of the lobby. Staff from the ED will don screening PPE and transport the patient to ESI-314 for further evaluation.
3. **Labor and Delivery** – L&D staff wearing screening PPE will transport the patient to ESI-314 for further evaluation and definitive care.
4. **Outpatient Areas on the Main Campus** – Will call the Administrative Coordinator and wait for further instructions.
5. **Off Site Primary Care Offices and Urgent Care Centers at North and Northeast** – Will contact providers and consult with the Hospital Administrative Coordinator prior to initiating any patient movement.
6. **Direct Admissions** – Screening will take place over the phone and transport will take place only after appropriate arrangements to receive patient have been made.

THREE C'S OF EBOLA PREPAREDNESS: **CONTAIN, CALL, CLEAN**

EARLY IDENTIFICATION Ask all patients about recent travel history when assessing. Traveled internationally, visited Guinea, Liberia, and Sierra Leone AND have fever, cough, trouble breathing, rash, vomiting or diarrhea are being distributed to designated entry points in the system.



1. CONTAIN

Isolate the patient. Move the patient to a private room — keep the door close. Utilize standard, contact and droplet precautions.

2. CALL

Call Administrative Coordinator at _____. The Administrative Coordinator will notify Infection Prevention and Control, and Infectious Disease physicians, which will prompt the emergency response team to better coordinate care of the patient and safety of the staff.

3. CLEAN

Bleach (Clorox Healthcare Germicidal Wipe or Dispatch), Quaternary or phenolic cleaning solutions are appropriate. Use disposable equipment where possible – do not share equipment guidelines include immediate isolation and notification of the Administrative Coordinator.

If you have any questions or concerns, please call the Infection Prevention and Control Office at (315) 448-3519.

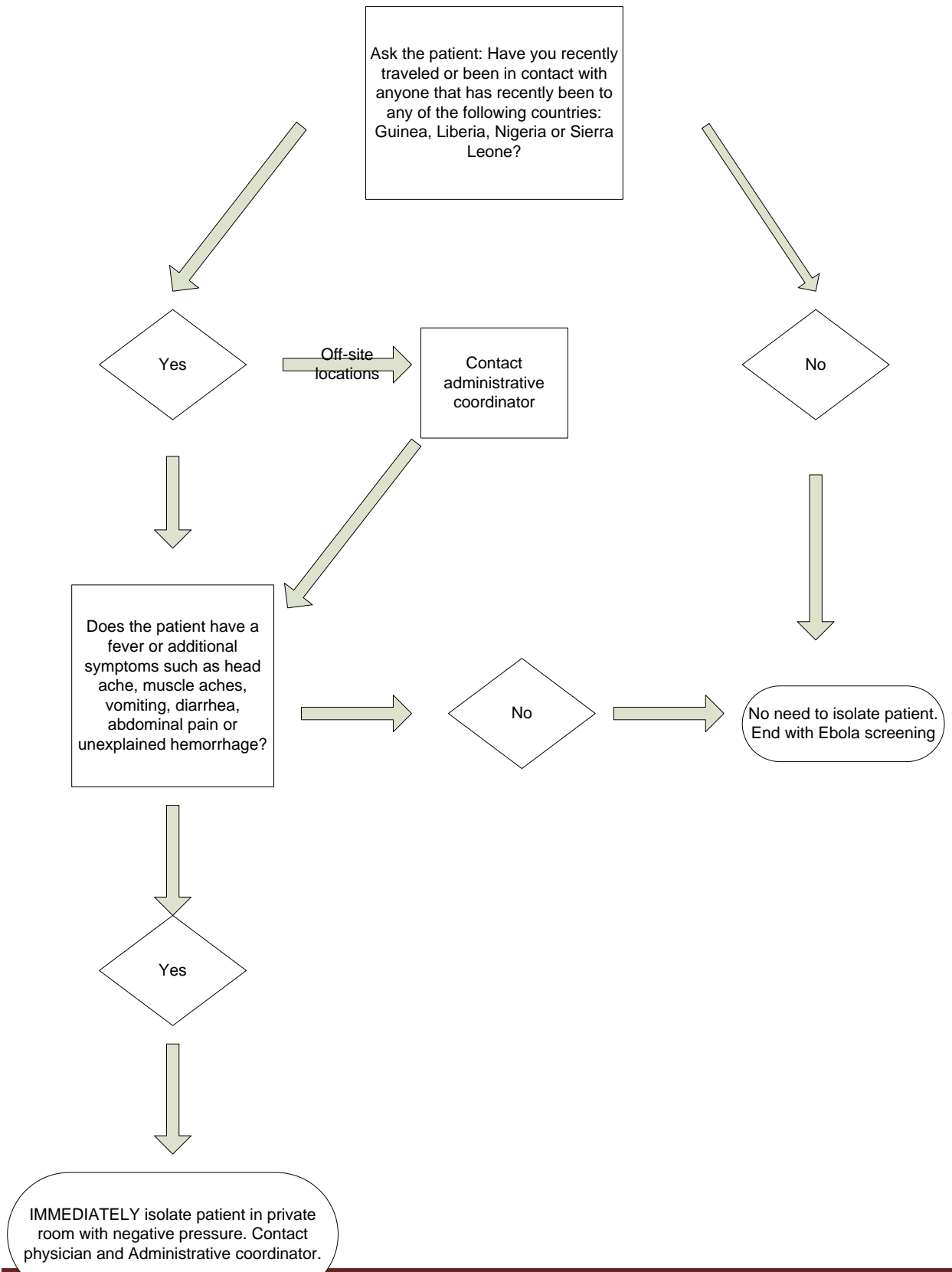
Ebola Screening Tool

The Ebola screening tool will be used in the patient registration areas. They will ask the patient about any recent travel (See the tool on Page 6) and complete the question in EPIC (see screen shot on Page 7).

Clinical areas will answer two questions in EPIC (see screen shot on Page 7) and follow the algorithm as seen on Page 6.

If the patient answers yes, a BPA (see screen shot on Page 8) will also fire in EPIC with instructions.

Screening Tool for Possible Ebola Patients



EPIC Screen Shots – Ebola Screening Tools

Clinical Screening Tool

The screenshot shows a window titled "Ebola Screen". At the top, it displays "Time taken: 1224" and "10/17/2014" with a "Values By" dropdown. Below this is a section for "Ebola Risk" with two questions:

Question 1: Has the patient traveled to any of the following areas; Guinea, Liberia, Nigeria, or Sierra Leone or been in contact with someone who has?
 Response: Yes taken today

Question 2: Does the patient have a fever with additional symptoms such as; headache, muscle ache, vomiting, diarrhea, abdominal pain, or unexplained hemorrhage?
 Response: Yes taken today

At the bottom, there are buttons for "Restore", "Close F9", and "Cancel".

Registration Screening Tool

The screenshot shows a window titled "Travel History" for patient "Vondoom, Victor". The patient's age is 49 years and sex is M. The "Time taken" is 1227 and the date is 10/17/2014. The "Show" dropdown is set to "Row Info".

Question: Has the patient traveled to any of the following areas; Guinea, Liberia, Nigeria, or Sierra Leone or been in contact with someone who has?

At the bottom, there are buttons for "Accept", "Accept and New", and "Cancel".

Clinical BPA

This is a screen shot of the BPA that will fire if a patient screens positive for EVD. The first question will be asked by registration at time of entry into the facility. The questions will be asked again by clinical staff, this will include the second question.

Possible Ebola Risk

EBOLA RISK: This patient has identified EVD risk factors. Please follow organization protocol and notify appropriate provider.

This patient has the following documented EVD risk factors:

Has patient recently traveled to Western Africa or been exposed to persons/remains of persons with Ebola?: Yes
Does Pt. have a Fever: Yes

Current CDC guidelines as of 10/4/2014 identify a Person Under Investigation for Ebola as having BOTH:

1. Fever: subjective or $>38.6^{\circ}$ C AND at least one of: severe headache, muscle pain, vomiting, diarrhea, abdominal pain, unexplained hemorrhage
2. Epidemiologic risk factors within the past 21 days before the onset of symptoms, including:
 - A) contact with blood or body fluids or human remains of a patient known to have or suspected to have EVD
 - B) residence in - or travel to - Guinea, Liberia, Nigeria, or Sierra Leone

Steps to Follow per CDC Guidelines:

1. Isolate patient in single room with a private bathroom and with the door to the hallway closed.
2. Implement standard, contact, and droplet precautions (gown, facemask, eye protections, and gloves)
3. Notify the hospital Infection Control Department and other appropriate staff.

For more information, visit:
<http://www.cdc.gov/vhf/ebola/index.html>

Accept Cancel

EBOLA QUICK PPE FACT SHEET

STANDARD PPE

WHEN

WHAT

**ALL STAFF
ALL THE TIME**



Standard Precautions consists of proper hand hygiene (alcohol-based hand sanitizer or soap/water) and gloves when contact with blood or body fluids is anticipated

ADVANCED PPE

WHEN

WHAT

Used by clinical staff for the purposes of personal protection to gather quantitative data (i.e., temperature) following a positive travel history to Ebola-affected countries and associated symptoms



Considered contact & droplet precautions

PPE consists of impermeable gown, n95 mask, face shield, head cover (to include neck cover), long exam gloves, and surgical boot covers. Additional training and information to be provided

****Staff should not add additional PPE with the intent of increasing protection as removal of additional PPE can lead to unintentional contamination of self or others**

BIO-HAZARD

WHEN

WHAT

Used by clinical staff for the purpose of direct care of the infected, or potentially infected, patient. To be used only by staff and providers who have received specialized training in the donning and doffing (removal) of gear



Prevents exposure to large volumes of blood and body fluid.

Bio-hazard PPE consists of impermeable Tyvek suit, PAPR hood, surgical boot covers and multiple layers of exam/surgical gloves.

Personal Protective Equipment

Standard PPE – Utilized by all staff on all patients

Advanced PPE – Utilized by clinical staff when patient screens positive per the screening tool

Biohazard-Level C PPE- Utilized by a core care team of clinical staff for confirmed Ebola

PPE policies are online in addition to being contained in this packet.



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INFECTION CONTROL: APPLICATION & REMOVAL OF PERSONAL PROTECTIVE EQUIPMENT (PPE) – GLOVES/GOWN/MASK/SHEILD (For Standard Precautions and Isolation)

PURPOSE: To protect the employee’s hands, non-intact skin, clothing, and mucous membranes of the eyes, nose and mouth from exposure to blood/body fluids, excretions and secretions of the patient for either identified isolation needs or standard precautions.

GENERAL INFORMATION:

Sequence to Apply PPE	Sequence for Removal of PPE
1 st Gown	1 st Gloves
2 nd Mask or Respirator	2 nd Goggles or Face Shield
3 rd Goggles or Face Shield	3 rd Gown
4 th Gloves	4 th Mask or Respirator

*Refer to Appendix A for a diagram of sequence of donning and removing the PPE: [Appendix A](#)

GLOVES:

- The following fluid resistant gloves are available as required by procedure:
 - Exam gloves – non-latex, extra small to extra large sizes.
 - Surgical gloves – latex or non-latex, sizes 5½ to 9.
- Exam or surgical gloves are a one time use item and disposed of after use or when punctured, torn or contaminated. They are to be worn as required for Standard Precautions and according to the directions on the isolation signs.
- If allergic reaction to the exam, surgical or utility gloves occur, an Employee/Affiliate Occurrence Report is to be filled out and the employee seen in the Employee Health Office or Emergency Room when the Employee Health Office is closed.

GOWN:

- Fluid resistant gowns are ordered from Materials and come in three sizes, large (yellow) and extra large (blue), xx large and hypo allergenic cloth.
- Fluid resistant gowns are to be used as a barrier protection when:
 - Required by the directions on the isolation sign.
 - The generation of droplets or splattering of blood, body fluids, secretions or excretions is likely to penetrate clothing and expose potential non-intact skin.
- Contaminated gowns are not to be worn outside the patient’s room or outside the isolation area. Exception: Patient Transport when indicated.

Network Policies & Procedures/Infection Control: Application & Removal of Personal Protective Equipment (PPE) – Gloves/Gown/Mask/Shield(for standard precautions and isolation)/September 2013/Page 1 of 6

MASK or RESPIRATOR:

1. Surgical style fluid resistant masks with goggles or combination fluidshield masks are to be worn during the care of patients when generation of droplets or splattering of blood, body fluids, secretions or excretions are likely to occur and infect the caregiver's exposed eyes, nose, or mouth.
2. For protection against airborne diseases a particulate filter respirator mask, if a proper fit test can be achieved, or a Powered Air Purifying Respirator (PAPR) at the direction of the Employee Health Office; must be worn. A particulate filter respirator mask should be worn with protective eyewear as needed for Standard Precautions. No additional eye protection is required when using a PAPR.
3. Masks shall never be hanging around the neck of the caregiver when they are out of the procedural/clinical area.

GENERAL:

1. Perform hand hygiene before putting on personal protective equipment and after taking off personal protective equipment.

PROCEDURE	CLINICAL CONSIDERATIONS/RATIONALE
APPLICATION OF GLOVES:	The use of gloves does not replace the need for hand hygiene.
1. Sterile Gloves: <ul style="list-style-type: none">• Grasp the fold of the cuff of the glove for the dominant hand with the opposite hand.• Insert hand into the glove and pull into place.• Insert the gloved fingers under the cuff of the other glove.• Insert the opposite hand into the 2nd glove and pull into place.	Lift glove away from all surfaces to prevent contamination.
2. Exam Gloves: <ul style="list-style-type: none">• Grasp the cuff of the glove with the right or left hand.• Shake glove gently and insert right or left hand into glove and pull into place.• Repeat steps for other hand.	
REMOVAL OF GLOVES	
1. Using one gloved hand, grasp the other glove by the heel of the hand, below the cuff. With the fingers pointed down, remove by pulling down toward fingers and turning glove inside out, keeping the contaminated area on the inside. Hold removed glove in other gloved hand.	The contaminated area does not come into contact with the hands and wrists.
2. To remove the other glove, slide fingers of ungloved hand into the cuff of the glove. Pull down towards fingertips, turning glove inside out, and over first glove as it is removed, keeping the contaminated area on the inside.	The contaminated area does not come into contact with the hands and wrists.
3. Discard gloves in the trash.	
4. Perform hand hygiene	Organisms multiply rapidly in the warm, moist environment of the gloved hand.

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PROCEDURE	CLINICAL CONSIDERATIONS/RATIONALE
5. Apply hospital approved moisturizing lotion as needed.	Petroleum based lotions may affect the antibacterial action of the hand hygiene products and may NOT be used.
APPLICATION OF GOWNS:	
1. Place your arms into the gown with the opening in the back.	To fully protect the area of the uniform most likely to come into contact with the patient and their environment.
2. Tie the gown at the top neck area.	To protect the area from the shoulders to the waist tie. If this area is not tied, the gown will fall to the waist level.
3. Tie the gown at the waist area	
REMOVAL OF GOWN:	
1. Unfasten ties, neck first then back or waist.	
2. Pull away from neck and shoulders, touching the inside of the gown only, folding or rolling it into a bundle. (Contaminated area is contained on the inside).	The contaminated area does not come into contact with the uniform of the staff member.
3. Discard of gown in the trash.	
APPLICATION OF MASK:	
SURGICAL STYLE FLUID RESISTANT MASK/MASK WITH EYE SHEILD	
1. Earloop style: <ul style="list-style-type: none"> • Hold mask snugly over the nose and mouth. • Apply loops around ears. • Mold the metal nose-piece to the shape of your nose by pushing inward while moving your fingertips down both sides of the nose piece. 	
2. Tie style Fluid Resistant Mask: <ul style="list-style-type: none"> • Pick up mask by the string. • Tie the top strings first above ears, then tie the lower stings at back of the neck underneath the hair line making sure that the mask fits snugly over the nose and mouth. • Mold the metal nose-piece to the shape of your nose by pushing inward while moving your fingertips down both sides of the nose piece. 	
PARTICULATE FILTER RESPIRATOR MASKS	
1. Technol (orange) Mask: <ul style="list-style-type: none"> • Separate mask to open fully. • Gently pre-bend nose-piece to conform mask to your face. • Hold mask upside down to expose the two headbands. • Separate the headbands with index fingers • Cup the mask under the chin (orange side out) • Bring the headbands over your head. 	Fit check: To fit test the respirator, the wearer should forcefully inhale and exhale several times. The respirator should slightly collapse when inhaling and expand when exhaling. The wearer should adjust the respirator until any leakage of air is corrected. This is not the same as a fit test (done in Employee Health on annual basis) This is done EVERY time a mask is placed.

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PROCEDURE	CLINICAL CONSIDERATIONS/RATIONALE
<ul style="list-style-type: none"> • Place the first headband at your neck. Pull the remaining headband up and place at the crown of your head. • Form nose-piece tightly across the bridge of nose and face, Adjust mask to achieve facial seal. 	
<p>2. 3M (white) Mask:</p> <ul style="list-style-type: none"> • Hold the mask in your hand so that the headbands hang freely below your hand. • Position the mask comfortably under the chin and against the bridge of your nose. • Pull the top headband over your head, placing it at the crown of your head. • Adjust the top and bottom straps by pulling on the loose ends for a comfortable, secure fit. • Pinch the nose-piece for a comfortable, secure fit. 	<p>Fit check: To fit test the respirator, the wearer should forcefully inhale and exhale several times. The respirator should slightly collapse when inhaling and expand when exhaling. The wearer should adjust the respirator until any leakage of air is corrected. This is not the same as a fit test (done in Employee Health on annual basis) This is done EVERY time a mask is placed.</p>
<p>REMOVAL OF MASK:</p>	
<p>Surgical Style Fluid Resistant Mask/Mask with eye shield</p>	
<p>1. Earloop Style:</p> <ul style="list-style-type: none"> • Remove the earloops. • Hold the mask by the elastic loop and discard into trash. • Perform hand hygiene 	
<p>2. Tie Style Fluid Resistant Mask:</p> <ul style="list-style-type: none"> • Untie top and bottom strings. • Hold the mask by the string and discard into the trash. • Perform hand hygiene. 	
<p>3. Particulate Filter Respirator Mask:</p> <ul style="list-style-type: none"> • Remove the top headband over your head, and then remove the bottom headband over your head. • Hold the mask by the headband and discard into the trash. • Perform hand hygiene. 	



A Higher Level of Care

INFECTION CONTROL: DONNING AND DOFFING OF ADVANCED PERSONAL PROTECTIVE EQUIPMENT (PPE) –FOR EBOLA

Purpose:

To protect the employee's hands, skin, clothing, and mucous membranes from exposure to blood/body fluids, excretions and secretions of the patient suspected or identified as having Ebola.

General information: Donning and doffing will be assisted and observed with a buddy. Donning and doffing checklist will be utilized to ensure appropriate procedure is followed.

Equipment needed:

Fluid impervious gown

Bouffant cap

Head and neck cover

Gloves long cuff- 3 pairs

Knee high boot covers

Red bag trash bags

Duct tape

N95 mask

Face shield

Alcohol hand sanitizer

Impervious trash receptacle

Bleach wipes –stocked in patient room and outside door

Doffing Pad- fluid impervious drape

Donning Sequence: Staff buddy to assist and observe

1. Perform hand hygiene with either alcohol hand sanitizer rub or soap and water
2. Remove ALL jewelry
3. ALL long hair will be tied back and tucked up in bouffant cap-apply cap at this time
4. Apply knee high boot covers
5. Apply head and neck cover and tie at the lower rear neck. The ties for the head and neck covers CROSS IN FRONT and then tie in a bow in the BACK. IT IS WORN UNDER THEGOWN
6. Apply N95 respirator-sealing mask to face ensuring straps are not crossed and area

properly located.

7. Apply face shield- ensure face shield and head cover overlap to protect forehead
8. Apply fluid impervious gown. NOTE: ALL TIES should be properly secured with a SIMPLE BOW. Ensure all fit well and cover intended areas.
9. Hand hygiene
10. Apply close fitting, long cuffed exam gloves. Bring cuffs of gown over the gloves.
11. Apply 2nd pair long cuff gloves over 1st pair. Make sure the glove cuff covers the gown sleeve adequately to prevent exposure when providing patient care.
12. Duct tape gown sleeve and glove cuff to one another- make tab for easy removal with assistance from buddy
13. Buddy to record donned time and complete donning check list
14. Buddy will place doffing pad in front of door and place garbage can lined with red biohazard bag at edge of doffing pad.
15. Buddy will place extra pair of long cuffed gloves on doffing pad opposite to garbage can

Doffing sequence: Staff buddy to assist and observe

1. Before exiting patient room use bleach wipe to remove ANY visible soiling on suit and dispose of wipe in trash.
2. Use new bleach wipe to wipe off outer pair of gloves and dispose wipe in trash.
3. Step out of room directly onto doffing pad, already placed on floor- with red biohazard bag nearby. Doffing buddy will have ready additional pair of gloves ready.
4. While standing on doffing pad, GENTLY remove duct tape- discard in red bag.
5. Remove 1st pair long cuff gloves using glove-in-glove technique.
6. IF inner gloves are accidentally removed during doffing of 1st gloves, additional clean gloves WILL be applied.

PLACE EVERY DISPOABALE ITEM DIRECTLY INTO RED BIOHAZARD BAG

7. Untie gown bow to reduce aerosolization.
8. With gloved hands gently begin to gather gown rolling it down, keeping dirty surface to the inside.
9. Discard gown in red biohazard bag

10. Remove boot covers at this time by rolling it down, keeping the dirty surface to the inside.
11. Step onto a clean area of doffing pad and discard shoe covers into red biohazard bag.
12. DO NOT STEP ONTO SOILED AREA of DOFFING PAD FROM THIS POINT FORWARD
13. Remove final pair of gloves using glove-in-glove technique and dispose in biohazard bag
14. Perform hand hygiene with hand sanitizer- DO NOT LEAVE DOFFING PAD
15. Apply new clean gloves
16. Remove face shield
17. Grab rear strap and pull it over head forward, gently allowing face shield to fall forward.
18. Dispose of face shield in red biohazard bag
19. Holding lower corner of N95 facemask with 1 hand, remove each strap over the head.
20. Place in red biohazard bag
21. Remove surgical cap and place in red biohazard bag
22. Step off doffing pad
23. Gather up doffing pad, rolling dirty surface inward
24. Place rolled doffing pad in red biohazard bag.
25. Remove gloves using glove-in-glove technique.
26. Place in red biohazard bag
27. Perform hand hygiene with alcohol hand sanitizer and apply clean exam gloves.
28. Tie up red biohazard bag.
29. Wipe gloves with bleach wipe
30. Remove gloves using glove-in-glove technique-discard in trash
31. Call incident command for removal of trash
32. Buddy will record time of doffing on checklist/complete checklist

Advanced PPE



**INFECTION CONTROL: DONNING AND DOFFING OF PERSONAL PROTECTIVE
EQUIPMENT (PPE) –FOR EBOLA**

PURPOSE:

To protect the employee's hands, skin, clothing, and mucous membranes from exposure to blood/body fluids, excretions and secretions of the patient suspected or identified as having Ebola.

GENERAL INFORMATION:

Donning and doffing will be assisted and observed with a buddy. Donning ([Appendix A](#)) and doffing ([Appendix B](#)) checklist will be utilized to ensure appropriate procedure is followed.

EQUIPMENT:

Hospital issued scrubs
Croc/plastic washable footwear- hospital issued
Tyvek suit
Bouffant cap
Gloves long cuff- 3 pairs
Plastic boot liners
Red bag trash bags
Duct tape
Vital sign machine
Alcohol hand sanitizer
Impervious trash receptacle
Bleach wipes
Fluid impervious bin PAPR hood with battery pack
PAPR tubing
Pail or bucket
Liquid sodium hypochlorite

Donning Sequence: Staff buddy to assist:

1. Perform hand hygiene with either alcohol hand sanitizer rub or soap and water.
2. Remove All jewelry.
3. Apply hospital issued scrubs and plastic footwear ie. Crocs.
4. All long hair will be tied back and tucked up in cap- apply cap at this time.
5. Take and record each other's vital signs and record on check list.

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6. Hydrate self with 6-8oz of non caffeinated drink ie: water or sports drink.
7. Perform hand hygiene with either alcohol hand sanitizer product or soap and water.
8. Apply plastic boot liners tape to secure to scrub pants.
9. Step into Tyvex suit and pull up to waist.
10. Apply shoe covers- donning buddy will duct tape shoe covers to Tyvex suit-tabling ends for easy removal.
11. Apply close fitting, long cuffed exam gloves, with cuffs under sleeve of suit-pair #1.
12. Pull remainder of Tyvex suit up to upper body only zip to waist.
13. Donning buddy will roll down hood of suit and tuck into back.
14. Strap PAPR battery back to waist, ensuring comfortable and secure fit.
15. Donning budding will attach tubing to battery pack.
16. Apply 2nd pair of long cuff gloves. Donning buddy will duck tape to suit-tab ends for easy removal.
17. Attach PAPR tubing to hood.
18. Apply hood and buddy will turn on PAPR.
19. Hold outer of hood up over face while donning buddy tucks inner layer into neck of suit.
20. Donning buddy will zip suit to neck.
21. Donning buddy will remove paper tape from zipper flap and secure flap to suit.
22. Pull outer layer of hood down over shoulders.
23. Buddy will perform PPE safety check list.
24. Record time donned.
25. Upon entering patient room apply 3rd pair long cuffed gloves.

Doffing sequence:

1. Before exiting patient room use bleach wipe to remove any visible soiling on suit and dispose of wipe in trash.
2. Remove foot covers and dispose in trash.
3. Use new bleach wipe to wipe off outer pair of surgical gloves and dispose wipe in trash.
4. Remove and discard outer glove by using glove-in-glove technique.
5. Discard gloves in trash before opening the door.
6. Step out of room directly into large biohazard bin lined with red biohazard bag.

7. Doffing partner will remove tape from your cuffs.
8. Place every disposable item directly into biohazard bag.
9. Doffing buddy will unfasten PAPR belt and place unit on table with PAPR still switched on.
10. Doffing buddy will wipe down PAPR tubing, battery pack, and belt with bleach wipe and discard wipe into biohazard bag-DO NOT allow tubing to touch suit.
11. Doffing buddy will pull outer layer of hood up.
12. Doffing buddy will unzip suit.
13. Doffing buddy can now begin to remove suit by rolling suit from inside, down toward biohazard bin, leaving 2nd pair of gloves intact and allowing cuff of 2nd pair of gloves to fold over. Do not allow external surfaces to come in contact with wearers skin or clothing.
14. Continue to remove suit until it reaches ankles tucking suit into red biohazard bag.
15. Doffing buddy will remove 2nd pair of gloves and discard in biohazard bag.
16. Doffing buddy will roll outer hood down so visibility is restored.
17. Step out of suit and biohazard bag onto floor while doffing buddy secures suit in biohazard bag.
18. Doffing buddy will now switch off PAPR unit and disconnect hoses from PAPR battery pack only not the hood.
19. You will now remove your hood lifting it up over your head and place in biohazard bag careful not to touch PAPR tubing or yourself with exam gloves.
20. Doffing buddy will carefully retrieve PAPR tubing for cleaning.
21. Remove tape and inner boot liners and place in biohazard bag.
22. Remove final pair of gloves using glove-in-glove technique and dispose in biohazard bag.
23. Doffing buddy will seal and dispose of biohazard bag in approved Biohazard container and attend to reusable items.
24. Perform hand hygiene with hand sanitizer and proceed immediately to sink to perform hand hygiene with soap and water.
25. Rehydrate with non-caffeinated fluid.
26. Take vital signs and document time out of room on checklist.
27. Proceed to shower.

APPENDIX A

St Josephs Hospital Health Center

DONNING TYPE C PPE CHECKLIST
Ebola

Date __/__/__ Time __: __

Name _____

Vital signs: T ___ P ___ bpm R ___/min BP ___ mmHg

Doffing buddy _____

Doffing Partner (DP): Initial each step as being completed for your doffing partner.

PAPR battery pack, tubing and belt are the only non-disposable items

Step	Task	Initial as completed
1	All jewelry has been removed	
2	Partner is wearing scrubs and foot wear provided by the SJHHC	
3	Hair has been secured away from face (if required)	
4	Vital signs have been recorded	
5	Donning person has consumed 6-8 fl oz of fluid (<i>preferably a sport type drink</i>).	
6	All items of required PPE has been collected (<i>TYVEK Suit, Boot Liner, Shoe Covers, PAPR with tubing, PAPR Hood, 2 pairs of gloves (exam gloves and extra protection exam gloves)</i>).	
7	Correctly assembled per manufacturer specs PAPR unit and the plug is securely screwed into the bottom port.	
8	PAPR battery and filter flow test complete	
9	Plastic boot liners in place and taped to secure them to scrub pants	
10	TYVEK donned	
11	Shoe covers applied to both feet over the TYVEK	
12	Hands washed (soap and water or alcohol rub)	
13	Close fitting exam gloves donned with cuffs under the sleeves of the TYVEK	
14	Extra protection latex gloves donned over the close fitting exam gloves and the cuffs sealed to the outside of the TYVEK sleeves.	
15	PAPR unit securely applied to waist with unit comfortable seated at the small of the back	
16	PAPR tubing securely attached to PAPR hood	
17	PAPR Hood donned with inner layer tucked into TYVEK and outer layer over shoulders on outside of the TYVEK.	
18	PAPR is turned on	
19	Donned time recorded	
20	Visual inspection of donned buddy reveals no apparent compromises to PPE	
21	Donned person reports feeling comfortable	

APPENDIX B

St Josephs Hospital Health Center
DOFFING TYPE C PPE CHECKLIST
Ebola

Date __/__/__ Time __: __

Name _____

Vital signs: T ___ P ___ bpm R ___/min BP ___ mmHg

Doffing buddy _____

Doffing Buddy (DB) Initial each step as being completed for your doffing partner.

PAPR battery pack, tubing and belt are the only non-disposable items

Step	Task	Initial as completed
1	Soiled area on Tyvek suit wiped with bleach wipes before exiting room	
2	Foot covers removed before exiting room and disposed into biological waste	
3	Doffing buddy stepped directly into a large biohazard bag that had been placed in a plastic tub for stability and placed directly outside the patient care room	
4	Doffing Buddy removed tape from the arms and legs of the person being doffed	
5	Tape was placed directly down into the biohazard bag	
6	PAPR belt was unfastened and the unit placed on a table while still switched on	
7	PAPR belt and tubing wiped clean with bleach wipes	
8	Tyvek suit was removed without any external surfaces coming in contact with the wearers skin or clothing	
9	Person being doffed, stepped out of suit and onto floor	
10	Extra protection gloves removed without any external surfaces coming in contact with the wearers skin or clothing and placed into the biohazard bag	
11	Doffing buddy assisted with removing plastic booties without coming in contact with the wearers skin or clothing and placed them into the biohazard bag	
12	Doffing buddy switched off the PAPR and disconnected the PAPR tubing from the PAPR battery pack (Not the hood).	
13	The hood was removed by the person being doffed by gathering the outer layer together overhead and using a forward-up-and-over-motion and placed into the biohazard bag without coming in contact with the wearers skin or clothing and placed them into the biohazard bag	
14	Doffing buddy retrieved the PAPR tubing for cleaning and reuse	
15	Person being doffed removed inner exam gloves and placed them in the biohazard bag	
16	Person being doffed, used the alcohol gel that is available outside the patient room to sanitize hands.	
17	Person being doffed then went directly to the sink to wash hands	
18	Vital signs taken and recorded on checklist	
19	Doffing buddy sealed and disposed of waste per SJHHC policy	

DONNING BIOLOGICAL PPE - EBOLA PATIENTS



DOFFING BIOLOGICAL PPE - EBOLA PATIENTS



Frequently Asked Questions

Q: Will the critical care nurses be the only nurses trained to care for EVD patients, even when they no longer require that level of care?

A: The plan is to minimize exposure as much as possible and to keep the number of care providers to a minimum, We are currently recruiting for the core care team

Q: Will there be arrangements for the core care team to stay on campus if they choose?

A: yes, there is an active plan for that

Q: What accommodations will be made of the patient has to go to the OR?

A: EVD patients will not enter the OR—all care will be rendered in room 314 in the ER

Q: What if a staff nurse is pregnant or trying to become pregnant?

A: We do not recommend that they care for an EVD patient

Q: What if the patient is receiving dialysis?

A: At this time all care for the patient will be rendered in room 314 in the ER

Q: How do we prioritize the care?

A: Your safety comes first! Then the care of the patient is next. This is the utilitarian approach, defined as maximizing the benefit and reducing suffering or negatives.

Q: “What if.....?”

A: There are going to be many questions and potential scenarios that could come up. Some of these questions can only be answered at the point of care.

Q: Will the core care team receive additional pay?

A: Not at this time.

Q: Will I be paid for the mandatory training?

A: Yes

Recognition, Notification, & Self-protection

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