



LEGACY
HEALTH

PPE in a Flash

How Legacy Health Approached the Ebola Response

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EBOLA





What is Ebola Virus Disease (EVD)?

- Ebola (also known as Ebola hemorrhagic fever) is a severe, often-fatal disease caused by infection with the virus.
- The first Ebola virus was discovered in 1976 in what is now the Democratic Republic of the Congo near the Ebola River, in Africa.
- Since then, outbreaks have appeared sporadically.
- Ebola is spread through direct contact with: blood or body fluids (such as saliva, sweat, semen, stool or urine) of an infected person or through contact with objects that have been contaminated with the blood or other body fluids of an infected person.
- In the U.S. there have been three Laboratory-confirmed cases of Ebola in Dallas, Texas.

How to Safely Put on PPE

KEY POINTS:
Wash your hands before you put on PPE.





This is the CDC's basic guidance.

The Employee Health and Infection Prevention & Control teams are currently working on PPE guidance and education for full body coverage.


Please expect updates shortly.

SEQUENCE FOR PUTTING ON PERSONAL PROTECTIVE EQUIPMENT (PPE)

The type of PPE used will vary based on the level of precautions required, such as standard and contact, droplet or airborne infection isolation precautions. The procedure for putting on and removing PPE should be tailored to the specific type of PPE.

- 1. GOWN**
 - Fully cover torso from neck to knees, arms to end of wrists, and wrap around the back
 - Fasten in back of neck and waist
- 2. MASK OR RESPIRATOR**
 - Secure ties or elastic bands at middle of head and neck
 - Fit flexible band to nose bridge
 - Fit snug to face and below chin
 - Fit-check respirator
- 3. GOGGLES OR FACE SHIELD**
 - Place over face and eyes and adjust to fit
- 4. GLOVES**
 - Extend to cover wrist of isolator gown

Required Isolation Precautions

- **Droplet and Contact Precautions**
 - Place the isolation sign on the door, enter isolation in the electronic health record and place a cart with personal protective equipment outside of the patient room
- **Personal Protective Equipment (PPE) – required for everyone,**
 - Disposable shoe and leg cover covers
 - Gown
 - Hair cover
 - Mask and full face shield (ocular eye protection)
 - Goggles (double-gloving for exposure to blood or body fluid)

The teams from our Material Services Operations (MSO), Employee Health, Infection Prevention & Control and all Emergency Departments are working together daily to enhance our current supply of personal protective equipment in excess/recommendations from the CDC. This ongoing work includes equipment training and a plan for supply carts to be available in preparation for this situation.

- **Single patient room with private bathroom, keep the door closed**
 - Airborne isolation room preferred, at least an antechamber/greeting procedure is necessary, e.g. intubation. If performing these procedures, wear a PAPR for which you have been trained (or fit test for approved employees only – contact Employee Health)

How to Respond to a Suspect Case in the Hospital:

- When Ebola is suspected, the Clinician will call the On-Call Infectious Diseases Physician, and the local or state health department, immediately.
- The Charge or Triage Nurse will notify the Unit Manager, the House Supervisor and Laboratory Services.
- The House Supervisor will notify the Administrator On Call (AOC). The House Supervisor or AOC will activate the site Emergency Operations Center (EOC) and notify Infection Prevention & Control and Public Relations. The site EOC will determine the next level of response that includes the system EDC and Public Health involvement.
- The Charge or Triage Nurse will assign a designated person to ensure the clinical team is pulling on and removing personal protective equipment, safety – every single time. The observer must also wear PPE. Another person will be designated to document all people who enter and leave the patient's room.
- Visitors are restricted to those who accompanied the patient to the ED or other state area and will be isolated. Evaluate the visitor situation on a case-by-case basis with ID Infection Prevention & Control. All visitors are required to wear personal protective equipment and cover their hands after entering and leaving the room.

How to Send Specimens to the Lab

- Call Legacy Laboratory Services Referral Department at 503-413-5196 after obtaining the approval of the State epidemiologist.
- Order a MBG LAB in Epic, and note the specimen is for EBOLA testing to CDC.
- For specimen collection, staff should wear a face shield, a mask, gloves and a gown. Discard disposable PPE in red bag trash.
- Collect a minimum volume of 4mL whole blood preserved with EDTA (Dark Purple Top); specimens should be stored at 4° C or frozen.
- **Double bag all specimens and hand-deliver to the Lab.** For urine and body fluid specimens, necessary to tightly close the lids to prevent leaks.
 - Use a bleach wipe to clean all tubes and outer specimen containers, before putting them into a transport bag. Also clean the outer portion of the bag with a bleach wipe before transporting.
 - **Do not send any specimens in the pre-washed tube carrier.**
 - Do not submit specimens in glass containers or specimens preserved in heparin tubes.
- The Laboratory will send the specimen to the Central Laboratory Referral Department.
 - Laboratory personnel should follow specimen guidelines for handling blood and body fluid specimens using Bioscientific/Universal Precautions as outlined on page 37 in the Legacy Laboratory Safety Manual procedure SAF 5946.



*Portland Int'l Airport
Ebola Scare
Not Ebola – “Kid ate too much junk food...”*





SQUIRE



KNIGHT



IDEAL LAYOUT FOR SAFE MANAGEMENT

COLD ZONE = clean areas, e.g. donning area/room, nursing station

WARM ZONE = potentially contaminated areas (and contaminated trash), e.g. area surrounding the patient room, final doffing room

HOT ZONE = contaminated area

DONNING AREA/ROOM COLD ZONE <ul style="list-style-type: none"> ✓ PPE storage ✓ Two chairs 	PATIENT ROOM HOT ZONE	FINAL DOFFING ROOM WARM ZONE <ul style="list-style-type: none"> ✓ Two chairs ✓ Bleach wipes ✓ Trash canisters double layered with red bags
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Note: if only two rooms side-by-side are available, a donning room is not needed.

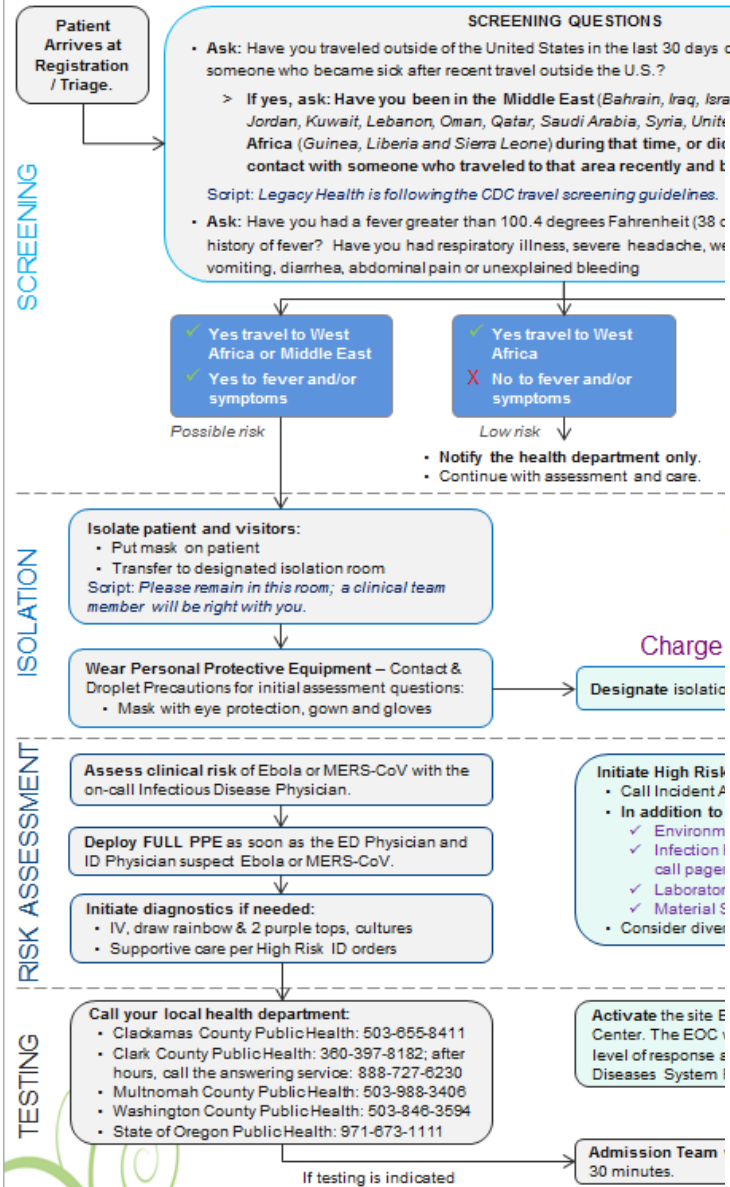
WARM ZONE <ul style="list-style-type: none"> ✓ Mat (surgical drape) for outer layer removal

DESCRIPTIONS FOR TEAM MEMBERS OUTSIDE THE PATIENT ROOM

COLD ZONES – Donning area/room, nursing station	WARM ZONE – areas surrounding the patient room	WARM ZONE – final doffing room
<p>Recorder:</p> <ul style="list-style-type: none"> • Document all people entering room: first and last name, role, date, time of entry and exit • Stay in the cold zone (or clean areas); do not enter any hot or warm zone, e.g. patient room, areas around the patient room final doffing room <p>Squires:</p> <ul style="list-style-type: none"> • Help caregivers put on PPE in the donning room • The squires and recorder can communicate needs of the team, e.g. if additional supplies are needed 	<p>Observer:</p> <ul style="list-style-type: none"> • Watch for potential breaks in protection or skin exposure from outside the patient room • Communicate with the caregivers using a paper / white board if needed • Read doffing instructions to the squires • Give feedback if needed <p>Squires:</p> <ul style="list-style-type: none"> • Help the caregiver remove the outer layer of PPE outside the patient room before going to final doffing room – see procedure • Do not walk into the cold zone or clean areas during PPE removal 	<p>Squires:</p> <ul style="list-style-type: none"> • Accompany caregiver to the final doffing room for help with removal of PPE – see procedure • Contain all removed PPE in double-layered red bags • Maintain an organized and clean environment in the final doffing room • Use bleach wipes to clean frequently-touched surfaces



High-Risk Infectious Diseases in the Emergency Department



!! Possible Ebola Risk:

If the patient calls to make an appointment:

- Notify an RN, licensed independent practitioner (NP, PA, MD / DO) or Clinic Leader.
- RN/LIP or Clinic Leader will collect information about patient demographics, current symptoms, medical history, details of travel history and pertinent clinical information.
- Call Legacy Health Infection Prevention & Control and On-Call Infectious Disease Physician to discuss next steps, before directing the patient for care.
- If unable to contact Infection Prevention and Control or Infectious Diseases, please call the local or state health department.

If the patient presents to the front desk:

- Instruct the patient to wear a mask.
- Bring the patient to an exam room and keep the door closed. Place a sign on the door indicating gloves, gown, mask and eye protection is required for entry. Additional personal protective equipment may be required, including: double gloving, disposable shoe covers and leg coverings.
- As always, practice strict hand hygiene when entering and leaving the exam room.
- Notify an RN, licensed independent practitioner (NP, PA, MD / DO) or Clinic Leader.
- Call Legacy Health Infection Prevention and Control and the On-Call Infectious Disease Physician to discuss next steps.
- RN/LIP or Clinic Leader will collect information about patient demographics, current symptoms, medical history, details of travel history and pertinent clinical information.
- If unable to contact Infection Prevention and Control or Infectious Diseases, please call the local or state health department.

This patient has the following documented risk factors:

Possible Ebola Risk

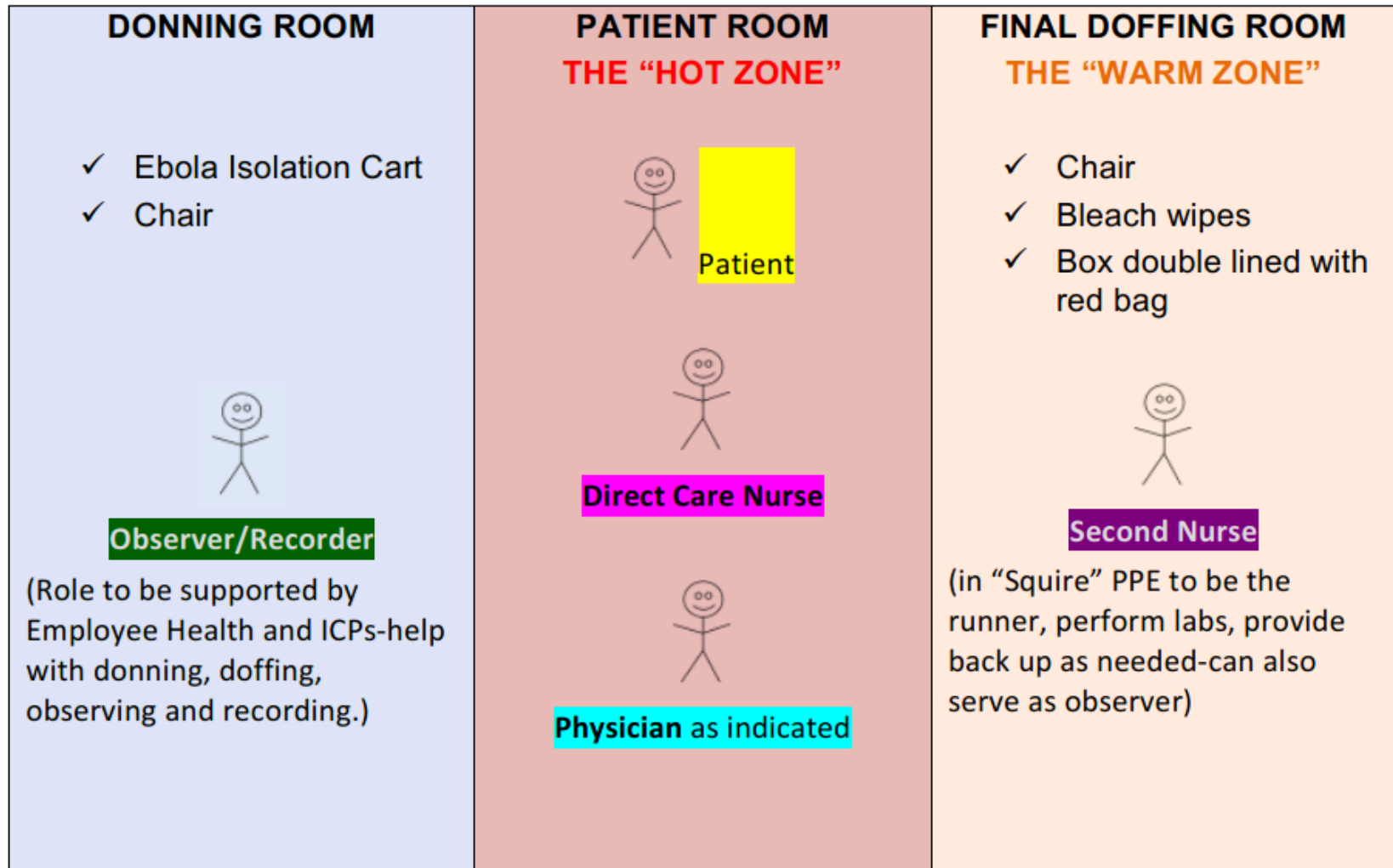
Ebola Travel Risk	12/2/2014	11/19/2014
Travel to Africa in the last 30 days, or been in close contact with someone who became sick after recent travel outside the U.S.?	(No Data)	Yes
Where in Africa did you travel?	Other	Other
Travel to Other Country not Named	-	Cario for one day

[CDC Guidelines](#)

Accept Cancel










Biological Isolation Unit (Kern Critical Care Pod A)



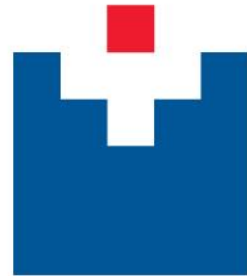


Infectious Disease Drill Action Plan: BICU

#	Date Assigned	Issue/Opportunity	Action Item	Owner	Due Date	% Done
1	3/11/2015	Security too close to patient during intake	Revise Security plan to clarify the process	Angela H., Chris S.	April	
2	3/11/2015	Need security escort from BICU to loading dock to receive patient and back up to unit	Revise Security plan to reflect this information	Angela H., Chris S.	April	
3	3/11/2015	Admitting physician to accepting physician handoff	Clarify process	Laura VanderWerff	April	
4	3/11/2015	RN to RN handoff	Clarify process	Ashley B.	April	
5	3/11/2015	The EOC needed a checksheet for BICU prep prior to patient arrival	Develop BICU preparation checklist assigning roles to various disciplines, including a checklist for cold/w arm/hot room preparation	Susan D., Jana B., Angela H.	April	
6	2/27/2015	No one to help set up the BICU	Kern ICU Charge Nurse to initiate using a checklist for each room	Ashley B.	April	
7	3/11/2015	Uncertainty about who deems BICU ready for patient occupancy - the final sign off	Determine who can authorize BICU as ready for use and add to EOC checklist - most likely Jonathan and/or AOC	Ashley B., Angela H.	April	
8	2/27/2015	Covering the carpet with plastic sheeting was very time consuming	Remove carpet outside Kern near elevators; consider use of stick-on plastic sheeting if carpet still present	David A. (Facilities)		
9	3/11/2015	Communication difficult initially between BICU and EOC	Need phone numbers for EOC posted in BICU and walkie talkies brought to BICU sooner; add to SOP	Susan D., Jana B.	Spring BICU training 3/31	
10	3/11/2015	Caregivers not wearing visible badges/name tags over PPE	Purchase white duct tape and sharpies for badges; include "apply name tag/credentials" in PPE donning checklist	Susan D., Angela H.	Spring BICU training 3/31	
11	3/11/2015	Confusion on what housekeeping supplies are needed for the space and each zone	Develop a housekeeping supply checklist	Susan D., Michael W.	Spring BICU training 3/31	
12	3/11/2015	PPE was disorganized and missing sizes	Lean Opp! Put complete PPE sets together in separate bags for each individual (e.g. squire) for "grab and go"; post inventory (to include sizes) on outside of bins; establish ongoing PPE checks	Bryan G., Susan D., Jana B., Angela H.	Wait on all Tychem suits to arrive	
13	3/11/2015	Too few PAPR units for the BICU	Need additional PAPR units; new PPE equipment on the way	Bryan G.	April	
14	2/27/2015	Wifi signal in BICU not strong enough for TeleHealth	Work with IS to improve strength of signal; this issue is on LGS's safety huddle list	Jonathan A.		
15	2/27/2015	Difficult for caregivers to communicate with each other in the patient room	Explore options for communication devices; have options in place to be tested in time for next BICU training session at end of March	Angela H.	Spring BICU training 3/31	
16	3/11/2015	Inconsistency in handing off of supplies and equipment (the "who" and "how")	Develop a hand-off process to include in the SOPs; train caregivers, squires and observers	Susan D., Jana B.	Spring BICU training 3/31	
17	3/11/2015	Need a stethoscope with bluetooth and speaker	Ordered one; will test with providers in Spring BICU training	Ashley B.	Spring BICU training 3/31	
18	2/27/2015	Anesthesia still needs PPE training	Schedule and conduct training with Anesthesia on PPE	LuAnn S.	Need Tychem Suits	

BICU & ED Drill Action Plans on EPLT SharePoint





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Thank you!
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