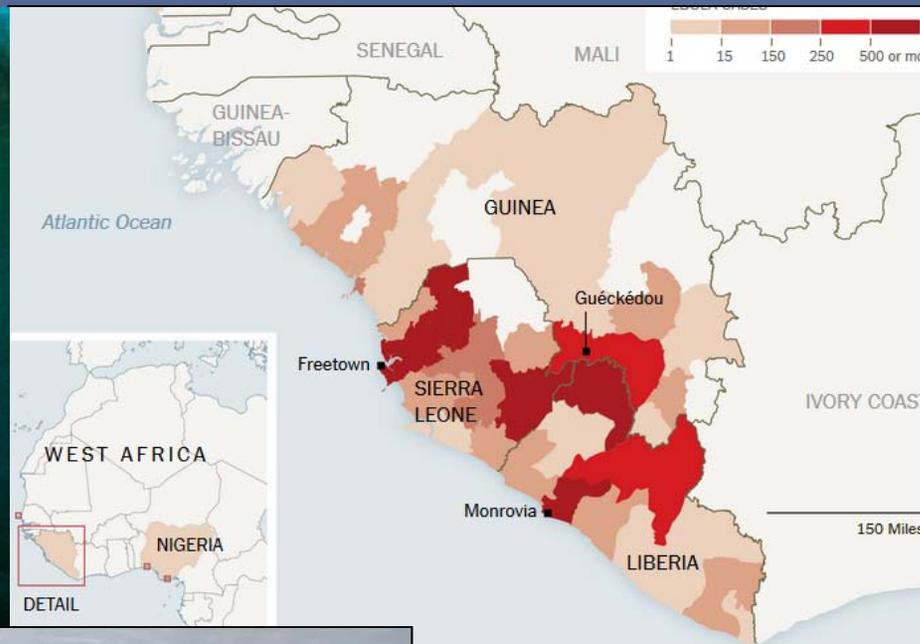


Ebola Preparedness at UCLA Health



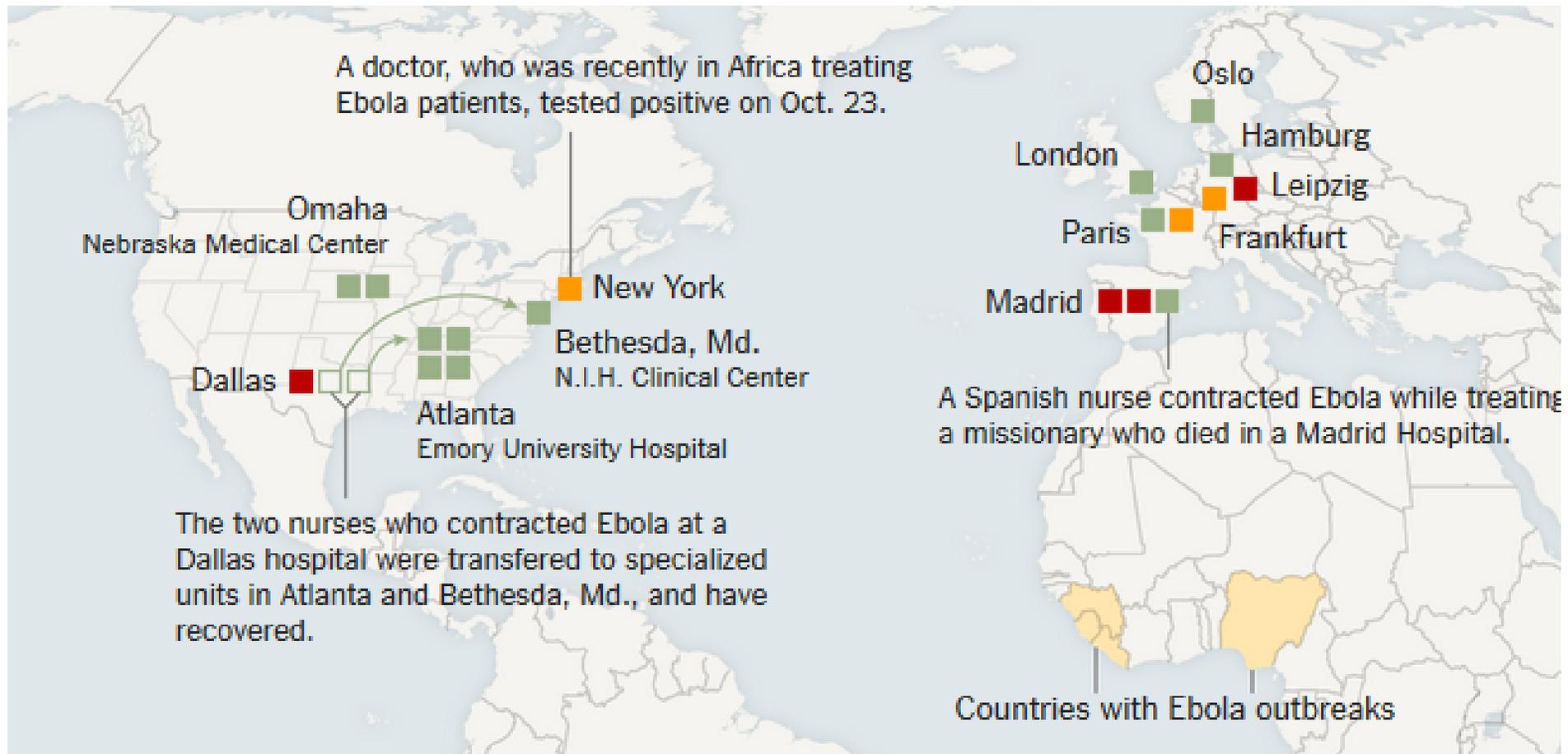
Dr. Zachary Rubin
Medical Director,
UCLA Clinical Epidemiology & Infection Prevention
Associate Clinical Professor,
UCLA Infectious Diseases

Almost 5000 deaths in W. Africa

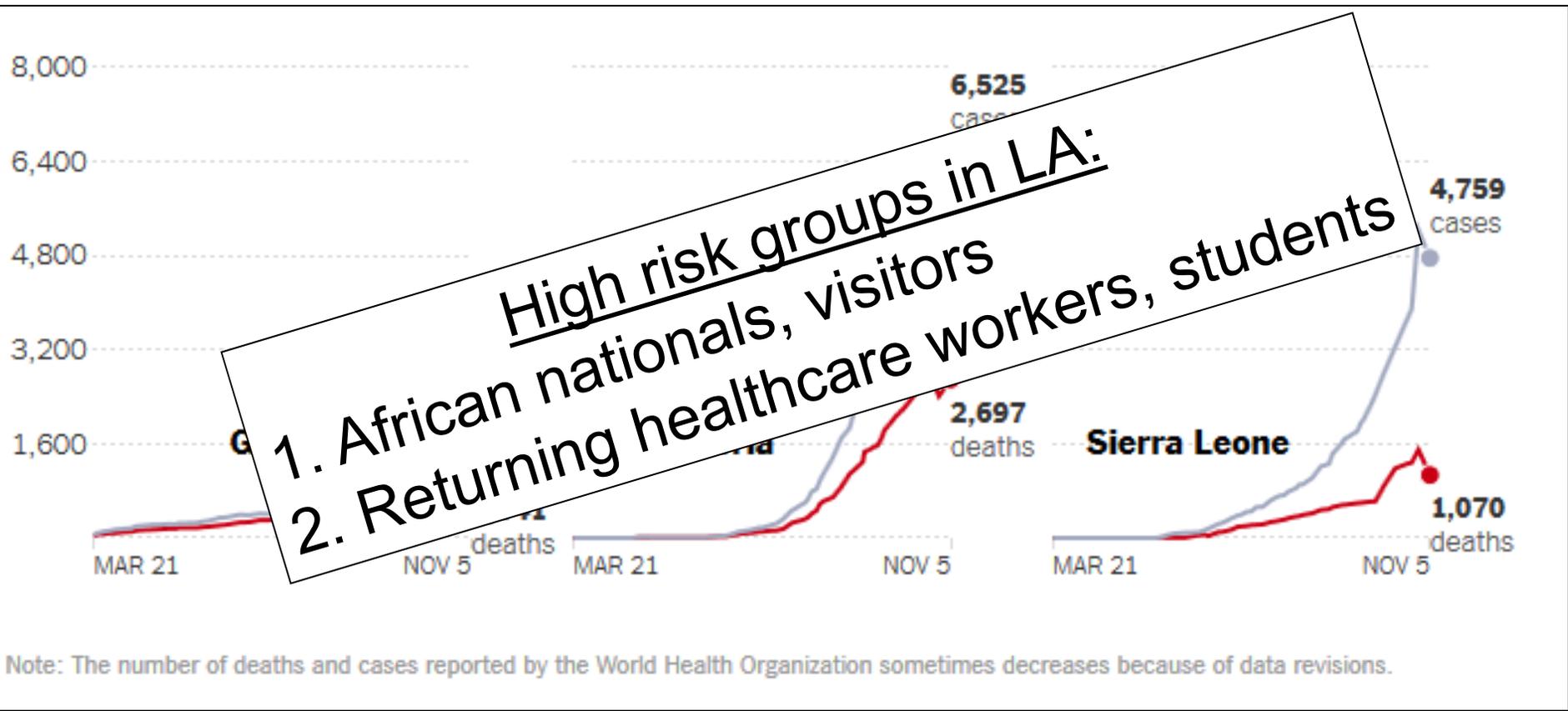


Ebola cases outside Africa, October 23

■ Recovered ■ In treatment ■ Died



Ebola in Africa: Infections and deaths



US Screening for Ebola at airports

Public health following x 21 days



COUNTY OF LOS ANGELES

Public Health



UCLA Health System

<https://www.flickr.com/photos/cbpphotos/15367057140/in/photostream/>

Ebola is not spread through casual contact



Facts *about* **Ebola** in the U.S.

You **CAN'T** get Ebola
through **AIR**



You **CAN'T** get Ebola
through **WATER**



You **CAN'T** get Ebola
through **FOOD** grown or
legally purchased in the U.S.



You can only get Ebola from

- Touching the blood or body fluids of a person who is sick with or has died from Ebola.
- Touching contaminated objects, like needles.
- Touching infected fruit bats or primates (apes and monkeys).

UCLA Health System

CNBC, CDC,
nydailynews.com



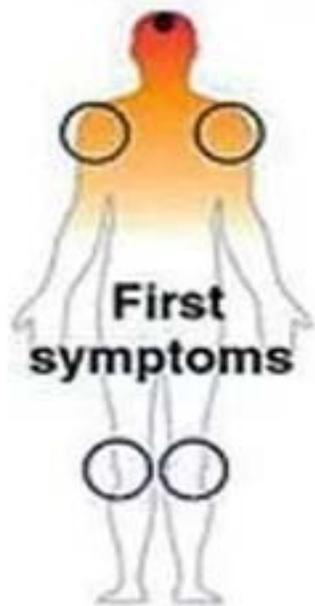
020543880

Symptoms of Ebola

- Incubation period 2-21 days
- Common symptoms:
 - fever (87%)
 - fatigue (76%)
 - vomiting (68%)
 - severe diarrhea (66%)
 - loss of appetite (65%)
 - Bleeding (18%)
 - rash
- Recovery starts in 6 days
- Fatality rate 50% in Africa, 1/9 patients in US

Clinical Progression of Ebola

Ebola virus' typical path through a human being



First symptoms

Day 7-9

Headache, fatigue, fever, muscle soreness



Day 10

Sudden high fever, vomiting blood, passive behavior



Day 11

Bruising, brain damage, bleeding from nose, mouth, eyes, anus



Final stages

Day 12

Loss of consciousness, seizures, massive internal bleeding, death

© 2014 MCT

Source: U.S. Centers for Disease and Control, BBC

Graphic: Melina Yingling

<http://www.md-health.com/Ebola-Symptoms.html>

Treatment of Ebola

Supportive Care

- Fluid & electrolyte management
- Nutrition
- Antibiotics for bacterial superinfection
- Oxygen
- Maintain blood pressure
- Pain control

Specific Care

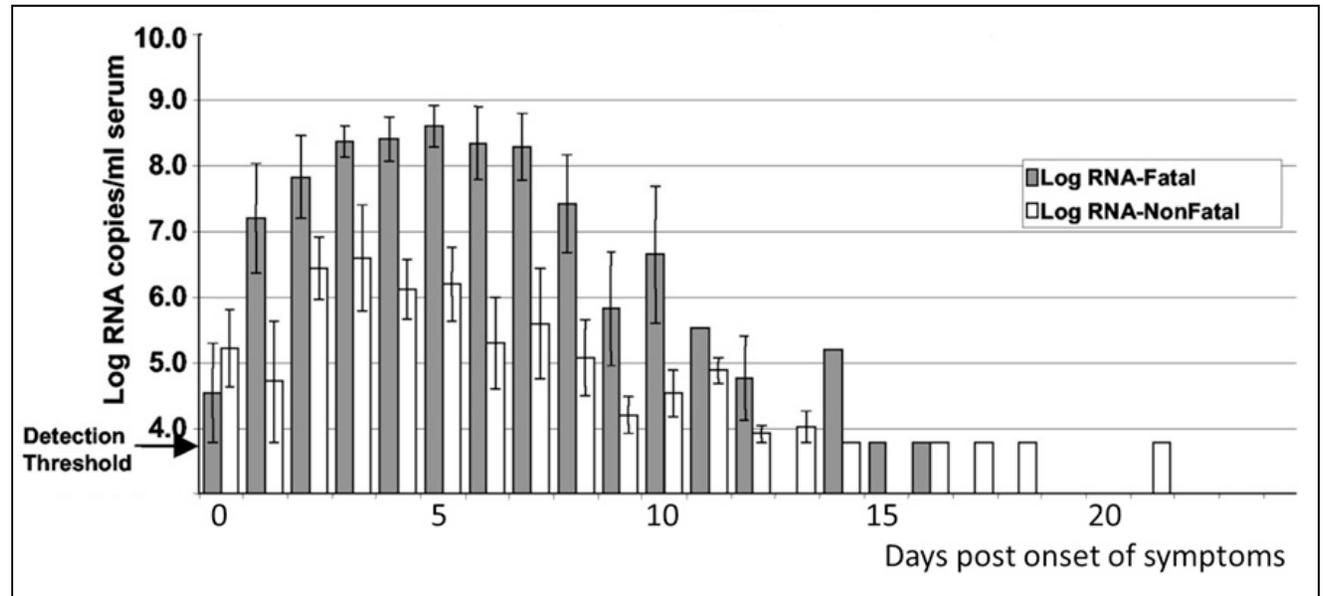
- Investigational drugs
 - Zmapp (3 monoclonal Ab)
 - Antiviral
 - Serum (antibodies)
- Prevention
 - 2 Phase 1 vaccines

- The high risk of transmission to healthcare workers makes management of Ebola disease very challenging.

What makes Ebola difficult to manage?

- Infectious fluids:

- Blood
- Feces
- Urine
- Vomit
- Sweat



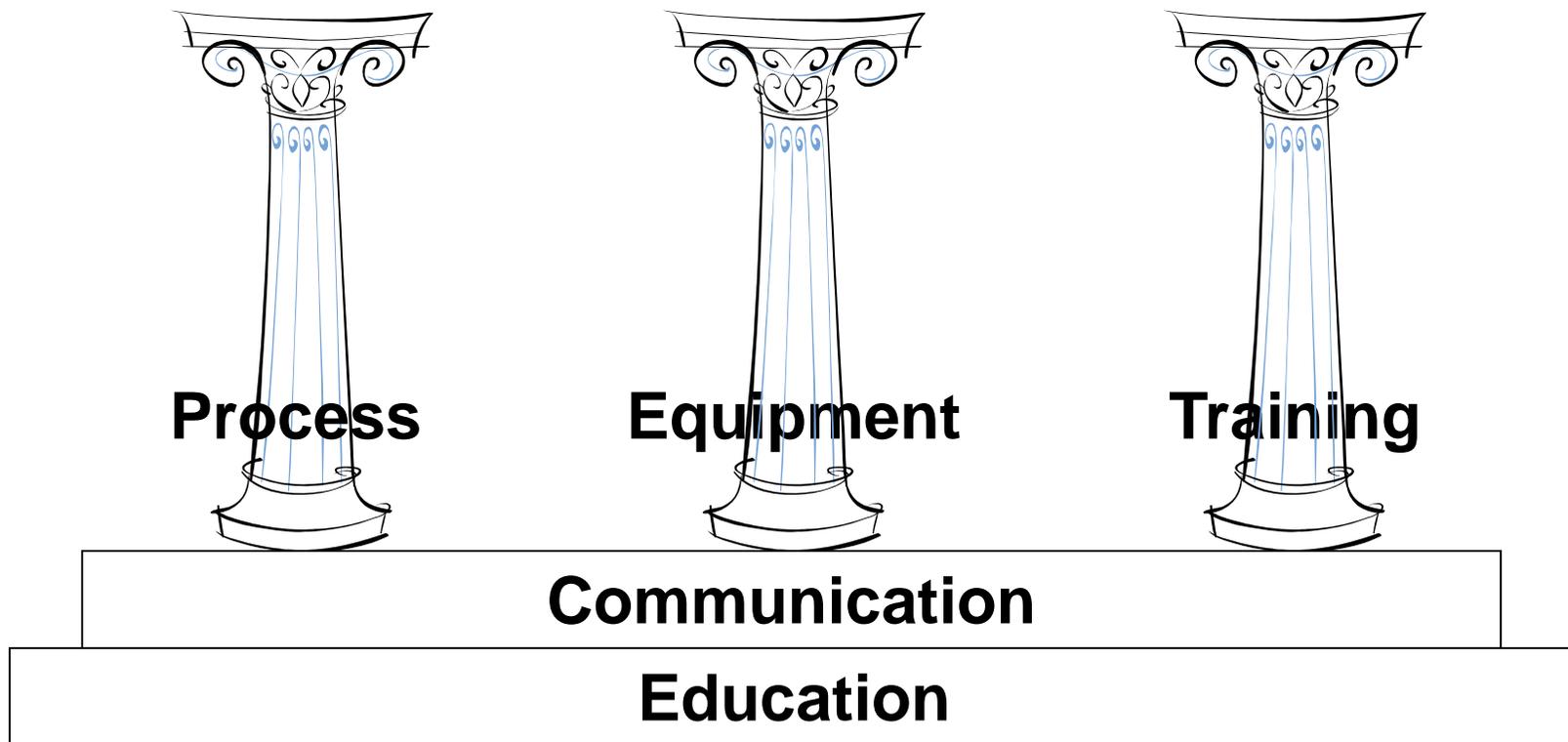
- Ebola is not spread through the air.

- Droplets can transmit Ebola if contact mucous membranes

Successful Ebola management requires large mobilization of resources & people

- Infection Prevention
- Emergency Preparedness
- ED
- Nursing
- Lab
- Critical Care Transport
- Peds ICU
- Adult ICU
- Infectious Diseases
- EVS
- Respiratory therapy
- Materials Management
- Safety/Security
- Media Relations
- Pharmacy
- Anesthesiology
- Blood Bank
- Facilities
- Campus Biosafety

Ebola Preparedness at UCLA



Identifying a suspect case & Transport to Ronald Reagan UCLA

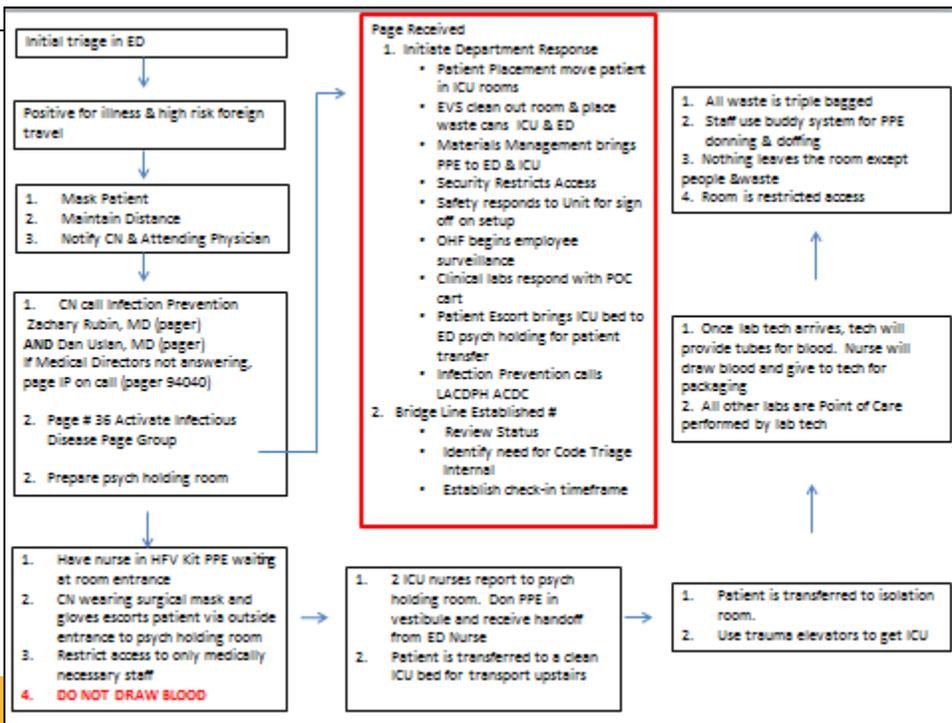
Foreign Travel Screening

Have you traveled to and/or been in contact with a person that has traveled outside of the country within the last 30 days?

Yes No

Country:

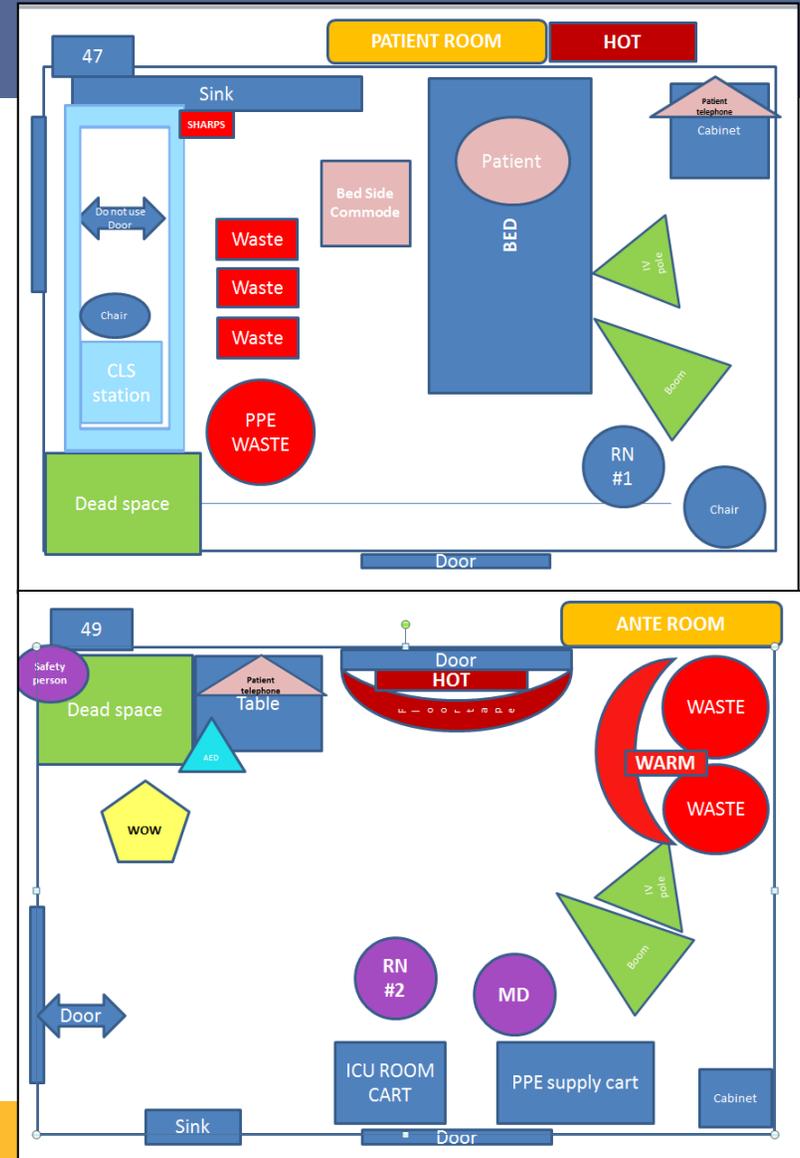
Guinea Liberia Nigeria Sierra Leone Saudi Arabia United Arab Emirates Qatar Oman Jo
Democratic Republic of Congo None of the above



Transport from ED to Medical ICU Ebola Care Area



Clinical care in medical ICU



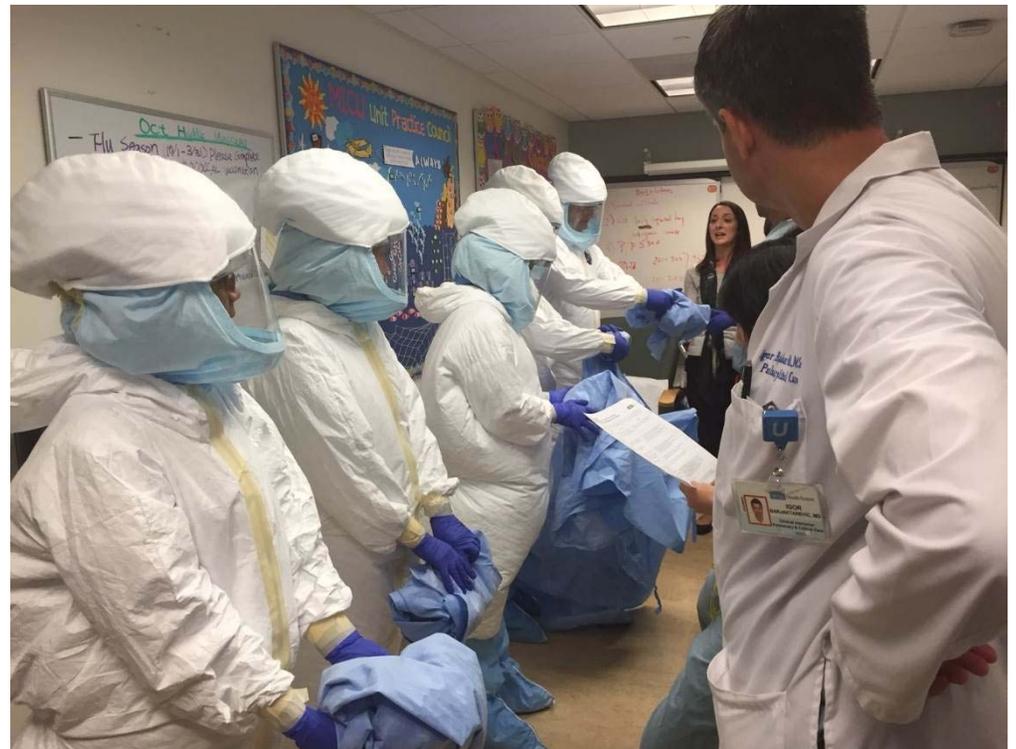
Lab testing & Waste management

POC LAB PIC

Waste Mgmt PIC

Clinical Care

- Ebola Response Team
 - Adult & Pediatric Infectious Diseases & Intensivists
 - MICU and PICU nurses
 - Laboratorians
 - Respiratory Techs
 - DaVita Dialysis nurses
 - Etc.
- No staff in training
- No transport off unit until Ebola test negative

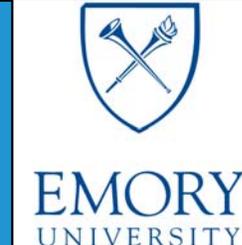


Enhanced Personal Protective Equipment



Features:

- 2 layers
- All skin covered
- AMII 4, ASTM f1670 & f1671 compliant gown & booties
- 2 gloves
- PAPR APF 25
- Easy to wear & doff



Personal Protective Equipment (PPE) is a PROCESS

- Buddy System
 - Double check, help doff
- Safety monitor
 - Donning & Doffing SOP
 - Situational awareness
- Doff ASAP when contaminated
- Practice & repetition



Ebola (Ebola Virus Disease)

Ebola (Ebola Virus Disease)

About Ebola

2014 West Africa Outbreak +

[CDC](#) > [Ebola \(Ebola Virus Disease\)](#) > [Healthcare Workers](#)

Guidance on Personal Protective Equipment To Be Used by Healthcare Workers During



If Ebola Came to Kalamazoo

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By SEHVILLA MANN



... Ronald Reagan UCLA Medical Center in Los Angeles p...



Doctors and staff at the Ronald Reagan UCLA Medical Center in Los Angeles participate in an Ebola preparedness exercise.

<http://wmuk.org/post/if-ebola-came-kalamazoo>