

# Hospital (~100 HCW) & Health Center (~50 HCW) Training & on-site orientation

One team per Hospital or Health Center per day includes: 3 facilitators (1 Local Patient Care, 1 IPC, 1 Water & Sanitation). The training will consist of 3 components

- Combined training
- Breakout sessions
- Walk around

8:00 am -12 midday: combined training for all staff

- The program for the day

- Use flip chart to learn of the audience's learning expectations of the training

- Current situation overview

- What all should know about Ebola

- What's the strategy to stop the outbreak

- The essentials of PPE, case management, environmental cleaning and waste management

9:45 – 10:00: Coffee Break

12:00 – 1300: Lunch



- 1pm to 3 pm: 3 Breakout Sessions: Targeted trainings

Type of Activity	Audience
Clinicians	Nurses, Physician Assistants, Medical Directors, midwives
Disinfection, environmental cleaning and waste management	Staff in charge of cleaning and disinfecting
Ancillary staff	Lab technicians, pharmacy, security

- Include demonstrations and trials of PPE and chlorine preparation
- 3:00pm: Reconvene all staff to review the day and learning expectations
- 3:30 – 5:30: Walk around to look at patient flows, holding spaces, changing areas, waste flows, PPE storage. Should be lead by medical and nursing Director plus a Focal Point designated to follow up on application of measure. Mock patient run through and establish processes going forward. Demonstration of the monitoring and evaluation tool.



# Keep Safe - Keep Serving

- Protecting Health Care Workers

- Standard Safety Measures ALWAYS FOR ALL
- Early recognition of suspect cases
- Extra safety measures in high risk areas



# Ebola – Key information

- Transmission
  - Contact with blood or body fluids from an infected person (or infected animal)
  - Not air born
- Incubation: 2 to 21 days
- Treatment
  - fluids
  - symptomatic
  - No specific antivirals



# Ebola epidemic in Liberia

September 11, 2014

<b>CASES</b>	<b>Total Number</b>
Total cases (confirmed, probable, suspected)	2610
Total deaths	1413
Total cases among HCW	172
Total deaths among HCW	82



# PROPOSED LEVELS OF CARE

Community health & education agent



## Health Care Provision System (Clinic , Health Center /Hospital)

Triage  
(separate for maternity)



General care zone  
Clinic area  
In-patient ward  
(including maternity)

Ebola Care Center

Testing

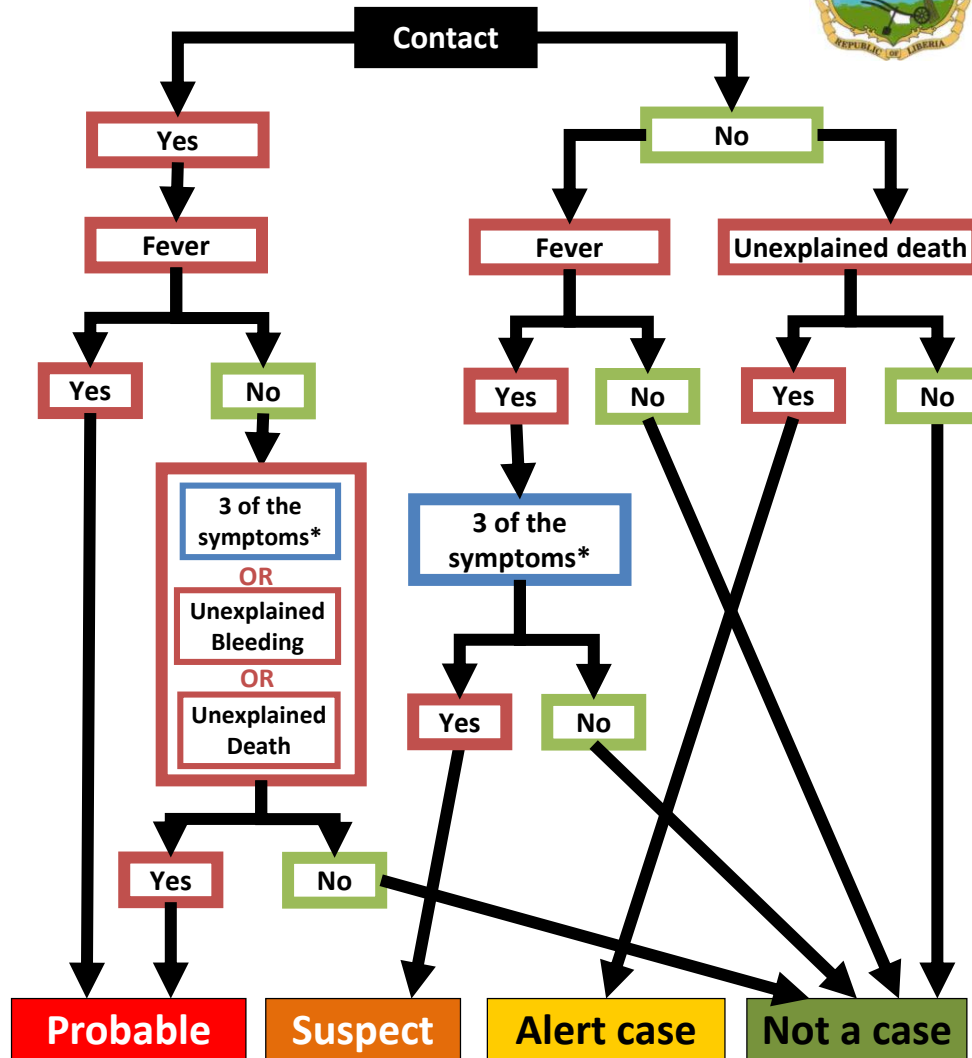


Ebola Treatment Unit (ETU)

Community Household



# EVD OUTBREAK Triage Decision-making Flowchart



Identify suspect cases early

**\*Symptoms include:** headache, vomiting, nausea, loss of appetite, diarrhoea, intense fatigue, abdominal pain, general muscular or articular pain, difficulty in swallowing, difficulty in breathing, hiccoughs



# Standard precautions

## - Everywhere, Always

1. Hand hygiene
2. Appropriate selection and use of PPE
  - 2 levels;
    - For all healthcare workers
    - For those working in areas of higher risk eg holding space and maternity
3. Injection safety
4. Cleaning and disinfection
5. Waste management





# Precautions in health-care facilities

- Avoid physical contact with people and especially any body fluids (blood, faeces (poo poo), urine (pee pee), sputum, etc.)
- Early identification of suspect cases at triage
  - For referral to ETUs or ECCs
- PPE is required in all patient care areas (low and high risk areas)



# How to Prevent Infections in Healthcare Workers

- Do not go to work if you are sick
  - Call your supervisor and tell him/her that you are sick
- Tell your co-workers not to go to work if they are sick
- Do not wear your work clothes (or scrubs) home
- Wear and remove PPE properly with a buddy watching
- Wash your hands according to protocol



# Items for low and high-risk areas

## Everyone: Basic PPE

- Closed toe shoes with covers or boots
- Face shield
- Gown
- Gloves (1 set)

## High risk: Advanced PPE

- Rain boots
  - or closed toe shoes & covers
- 1<sup>st</sup> set of gloves
- Gown
- Head cover or hood
- Mask
- Shield
- 2<sup>nd</sup> set of gloves
  - outer set can be rubber
- Apron





With acknowledgments to  
Kumblytee Johnson

# Ebola Care Centres (ECCs)

Ebola Care Centres will be established near and managed by designated healthcare facilities across Liberia.

Hospitals can supervise ECCs of up to 30 patients. Health centres can supervise ECCs of up to 15 patients at one time.

The site should be able to provide the following:

- Three separate areas for
  - wet patients (e.g. vomiting, diarrhoea, bleeding)
  - dry patients
  - family members to sleep



# Staffing the ECC

- A family member will provide all direct patient care and clean their patient care area.
- The Health care facility will provide core staff to manage the centre.
  - 2 triage staff at all times
  - 4 staff (1-2 nurses and 2-3 nurse aids) for supervising care and infection control for family members.
  - A mobile lab tech will attend every second day
  - One watsan person present at all times



# Role of the Supervising Hospital or Health care centre

- Supplies inc PPE
- Core group of trained staff
- Report cases
- monitoring and evaluation of IPC, security, facility



# PPE for staff at the ECCs

- Extended level PPE whenever inside the facility.
- Only change PPE after being involved in patient contact or when leaving the facility.
- Avoid touching sick people and particularly their bodily fluids.
- Try to stay 1 meter (3 feet) away.
- Wash your gloved hands with soap and water or bleach or chlorine water or hand sanitizer, after touching the sick person or anything that belongs to the person.
- always wash hands after removing gloves.





# Flow of patients in the ECC

- 2 patient care areas
  - wet and dry patients confirmed on testing
  - dry patients without a confirmed diagnosis (by laboratory)
- A patient in the dry area who becomes “wet” should be promptly moved to the wet area.



# Expectations of the family care giver

- Provide food, utensils
- Wash clothes and bedding
- Disinfect spills of body fluids
- Clean the patient area
- Clean after the patient does poo-poo or pee-pee in the chamber/bucket
- Wash plates and utensils



# Equipment and supplies to be provided at the ECC



- Beds/mattresses
- Linen
- Buckets
- Body bags

## Environmental cleaning and management of linen

- Heavy duty/rubber gloves
- Detergent
- Chlorine
- Cleaning tools
- Bags for waste disposal
- Rags and paper towels

## IPC equipment:

- Hoods, Gloves, Gowns
- Masks, Face shields
- Boots, Aprons

## Hand hygiene supplies:

- Soap & clean water
- Alcohol based hand sanitizer
- Chlorine water

## Basic Medical Kit

- Thermometer
- Oral Rehydration Solution
- Paracetamol
- Antimalarials and antibiotics



## *Hand hygiene*

- Before and after contact with a patient or the surrounding environment
- Before putting on gloves and after removing
- Wash with soap and water or use alcohol-based handrub or chlorine/bleach water



# Injection safety

**Always!**





# **Disinfection and Elimination of Waste**

*Part of standard precautions!*



# Disinfection

- Disinfection
  - Bleach can kill most germs
  - Use bleach as 0.05% or 0.5% solutions.
  - Germs are quickly killed in a 0.5% solutions or after being soaked at least 30 minutes in a 0.05% solution.
- Clean with detergent before disinfecting





# Preparation and use of chlorine

## 1:10 solution

- Soiled clothes
- Toilets
- Body Fluid Spills
- Floors/Environment

## 1:100 solution

- Bare hands and skin

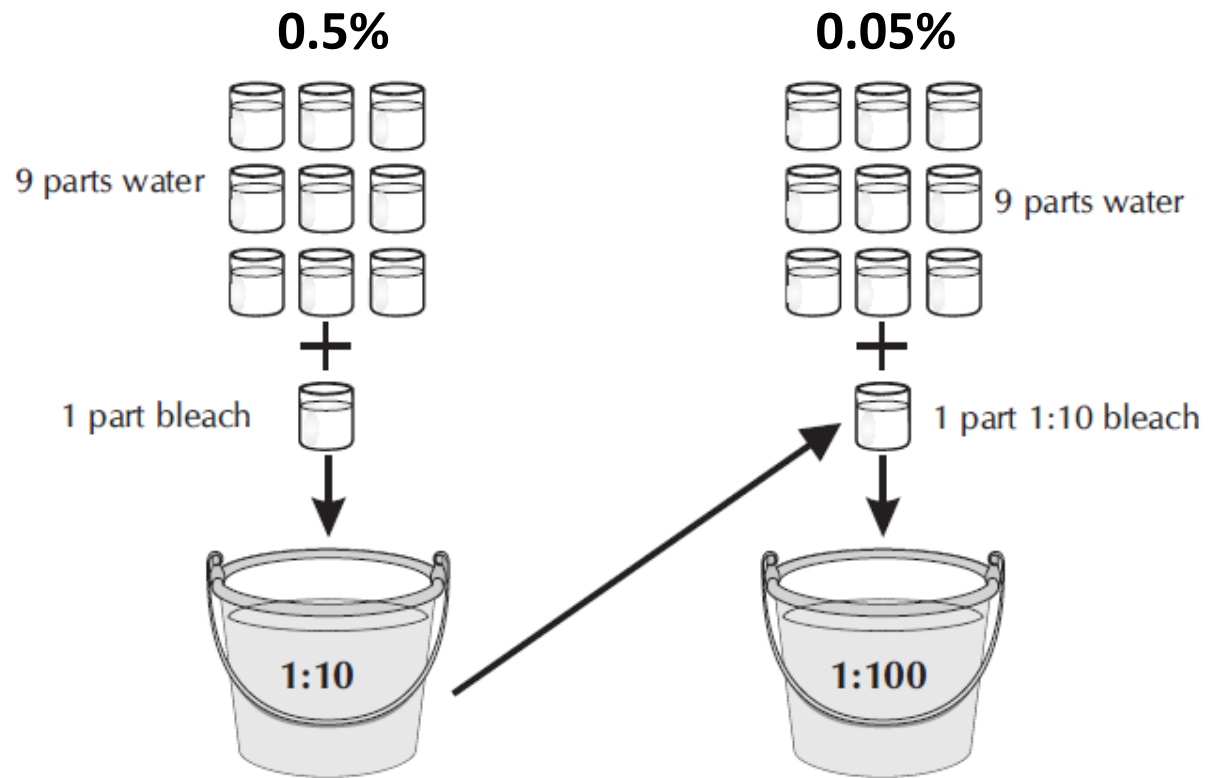
1 tablespoon per 2 liters of water

1 tablespoon per 20 liters of water

Calcium hypochlorite  
powder or granules  
70%



# Making chlorine water from 5% bleach



# Disinfection

<b>Chlorine Solutions &amp; Uses</b>	
<b>0.05%</b>	<ul style="list-style-type: none"><li>• Disinfection of bare hands and skin</li><li>• Disinfection of medical equipment</li><li>• Disinfection of laundry</li><li>• Disinfection of plates and eating utensils</li></ul>
<b>0.5%</b>	<ul style="list-style-type: none"><li>• Disinfection of body fluids</li><li>• Disinfection of corpses</li><li>• Disinfection of toilets and bathrooms</li><li>• Disinfection of gloved hands</li><li>• Disinfection of floors</li><li>• Disinfection of beds and mattress covers</li><li>• Footbaths</li></ul>



# Waste Separation

Sharps

Collected in water-proof and puncture-proof containers

Liquid Waste

Collected in buckets and basins (spills mopped up using absorbent pads)

Solid Waste

Collected in plastic bags (double bags)



# Waste Treatment

Sharps

Disposed of in sharps pit

Liquid Waste

Disinfected in basin or bucket, disposed of in toilet or latrine

Other Solid Waste

Burnt in burning pit, ashes pushed into adjacent ash pit & buried



# PSYCHOSOCIAL SUPPORT



# Psychosocial Health Support

- What is the greatest problem, fear or feeling you have about caring for an Ebola Patient?
- How is it showing up in your life?
- How are you coping?
- How can you help others



# Psychosocial Health Support

- What is the greatest problem or fear you have about caring for an Ebola Patient?
- Death, family would die, loss income, loss of mobility, loss of friends, social life, physical attractiveness
- Patients-loses, physical strength, mobility, job, attractiveness, social life





# Signs and symptoms

- How is that showing up in your life?
  - Not caring for patients, depression, not eating,
  - Shock and denial, anger, guilt, depression, despair, hopelessness, search for meaning, change/challenge to religious , reevaluate, goals
  - Stress that it is normal
  - Normal to be abnormal when faced with life threatening or treats to identity



# “Abnormal” reactions, are normal

- Listening to others and share insights-What do they say and think
- Take care of yourself, eat well, limit alcohol, food, and drugs, tobacco, and stay fit
- Avoid perfectionist expectations- they often lead to disappointment and conflict
- Do not try to hide feelings
- Do not self medicate-food, drug
- Look for healthy outlet
- Seek professional advice



Keep Safe - Keep Serving

Thank you!



# Now to break out groups.....

- Clinical care
- Water, sanitation and environmental cleaning
- All ancillary staff.....
  - Tab techs, pharmacy, security etc.

