



GOVERNMENT OF UGANDA



MINISTRY OF HEALTH

Infection Prevention and Control (IPC) Briefing for Ebola Virus Disease (EVD) healthcare workers

Dr. Namubiru Saudah Kizito
NHLDS, MoH



Outline

- **Introduction to IPC**
- **The WHO Core Components of IPC**
- **How infections Spread**
- **Standard Precautions**
- **Transmission Based Precautions**
- **Hierarchy of Controls**
- **Risk Assessment**



Introduction Infection Prevention and Control ?

- ❑ A *scientific* approach with...
 - Practical solutions designed to prevent harm, caused by infections .
 - Grounded in principles of infectious disease, epidemiology, social science and health system strengthening, and is rooted in patient safety and health service quality



Purpose of IPC



Protect self



Protect patients



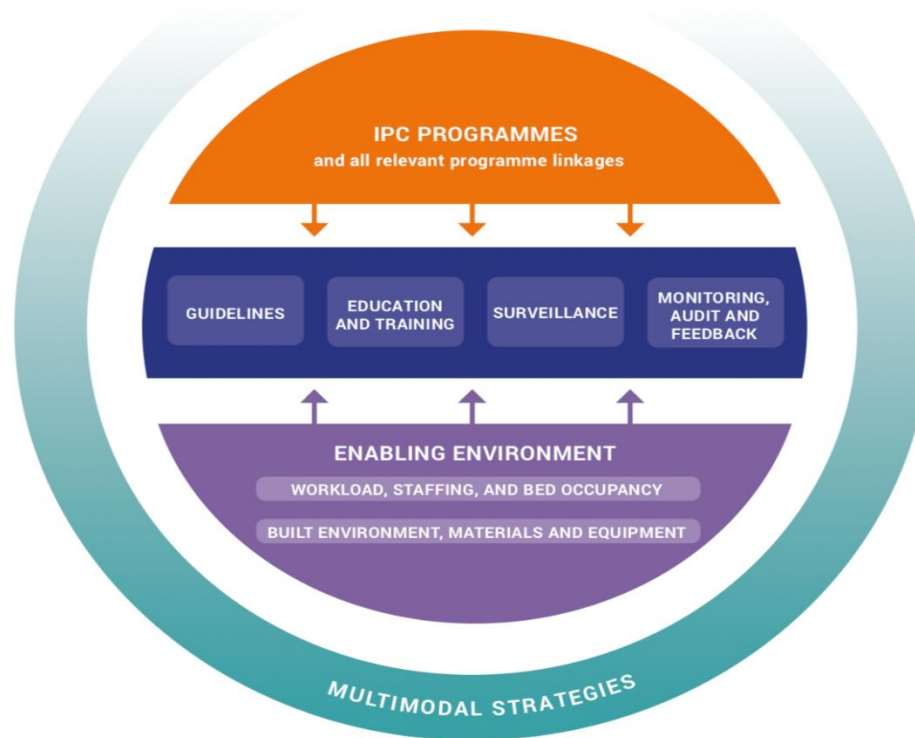
**Protect family
and community**

- **Target audience:** All health care workers Health facility managers, clinicians, and IPC practitioners across various healthcare settings, including primary care clinics, emergency departments, infectious disease clinics, and more.





IPC Core components



A step wise approach

towards the implementation of IPC

standards, at the national and facility

level to provide minimum protection and

safety to patients , HCWs and Visitors

,based on the WHO core components

for IPC programme

<https://www.who.int/infection-prevention/publications/core-components/en/>

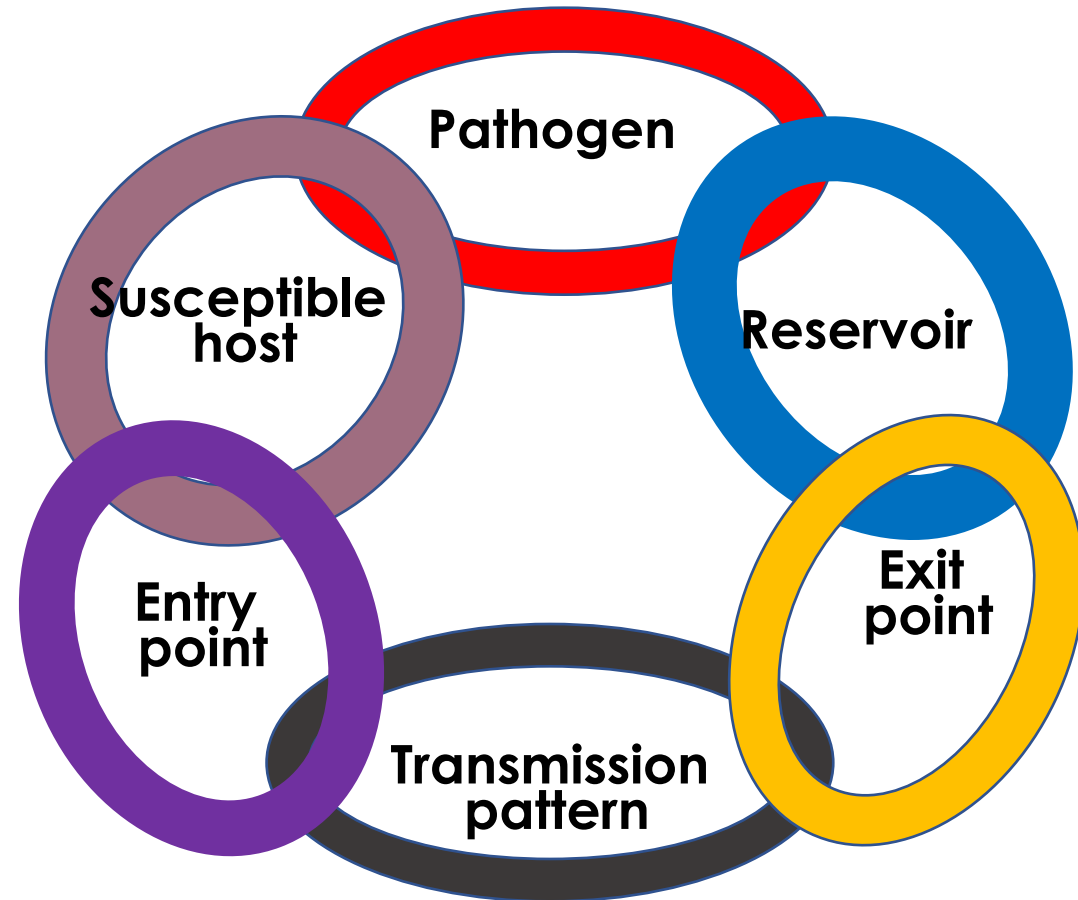


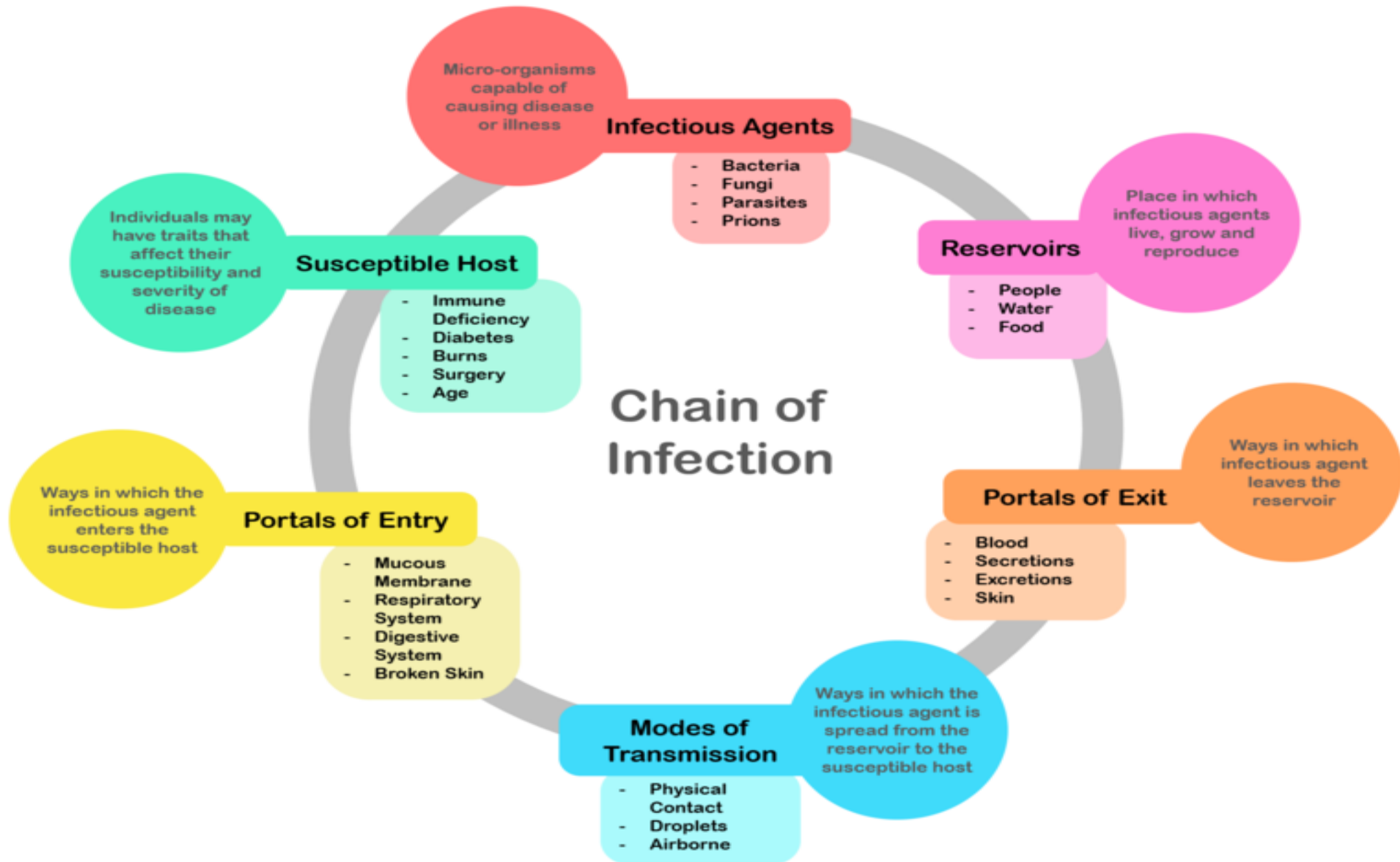
How infections are spread



Transmission chain for infections

- In order for an infection to spread, all links must be connected
- Breaking one of these links will stop the spread of the disease!

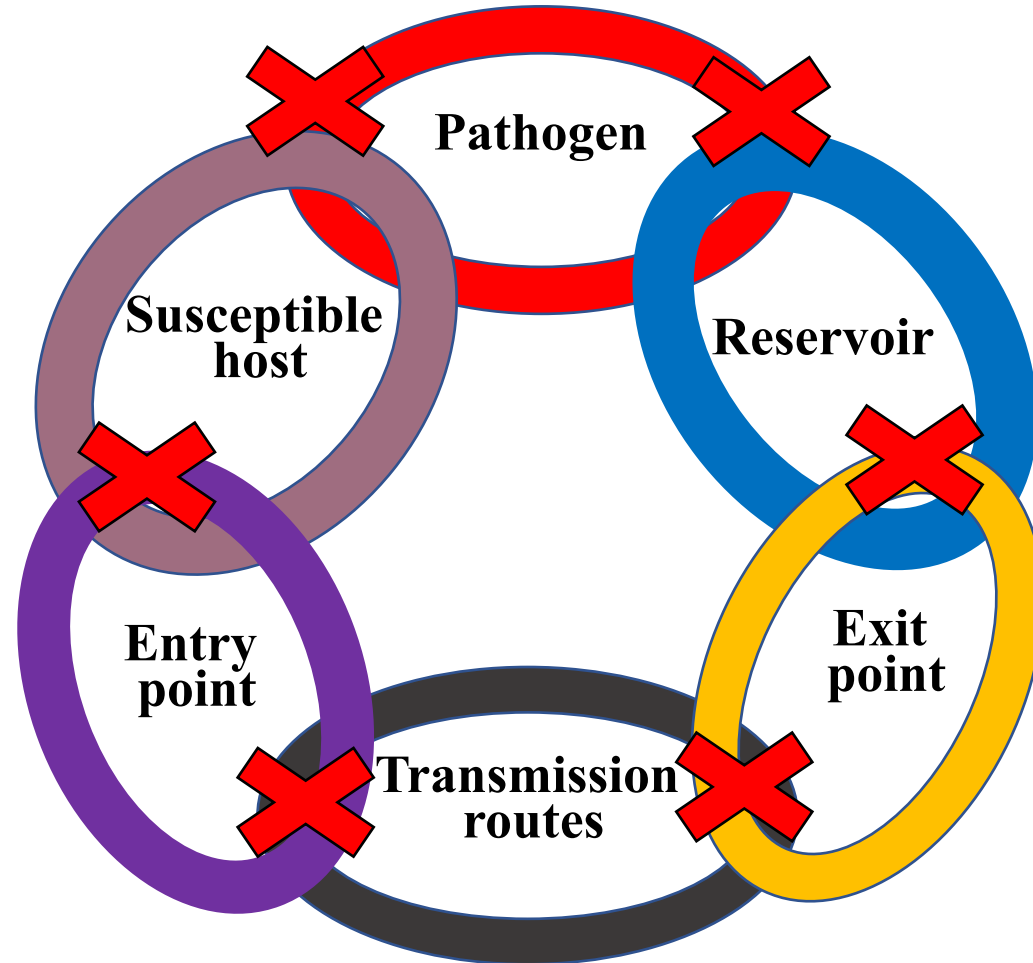






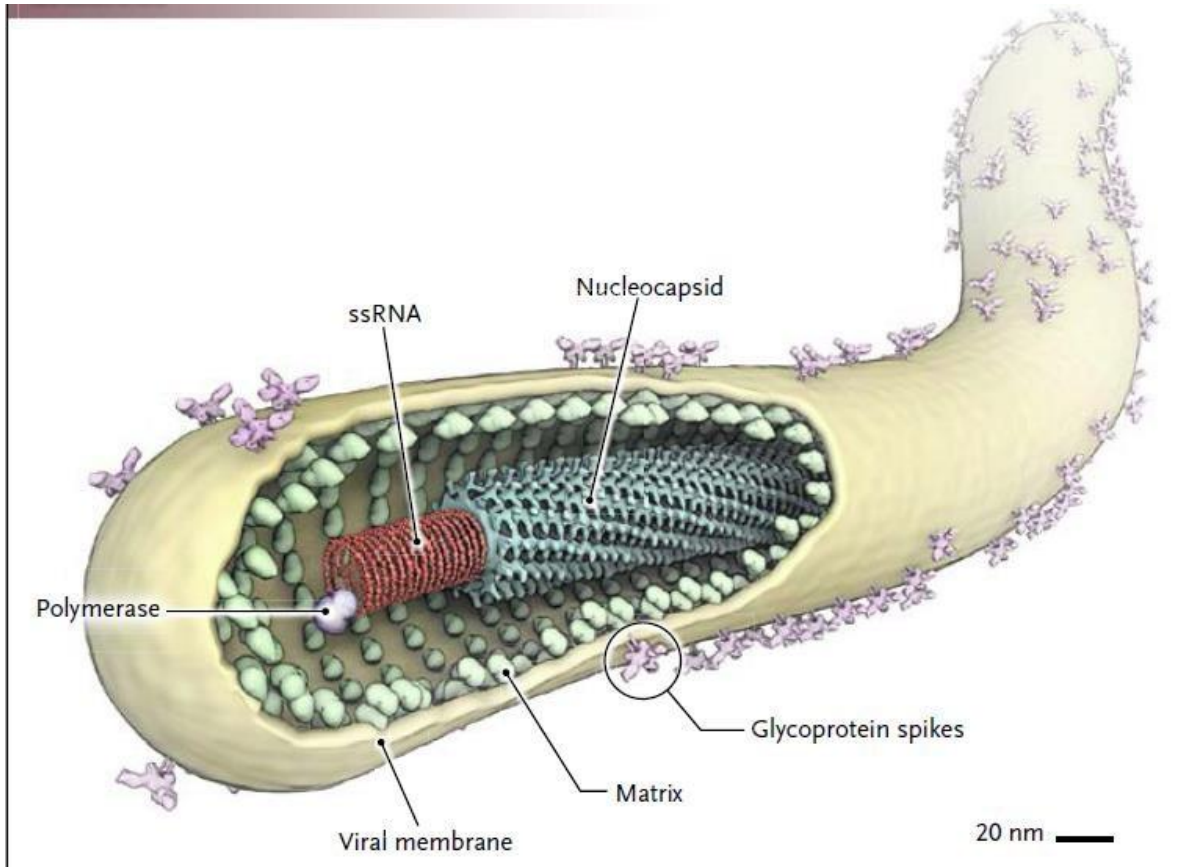
How do you break the transmission chain?

Apply
standard
precautions





Ebola Virus Structure



- lipid envelope
- **easily destroyed by soap, chlorine, and open environment**

How is EVD Transmitted?



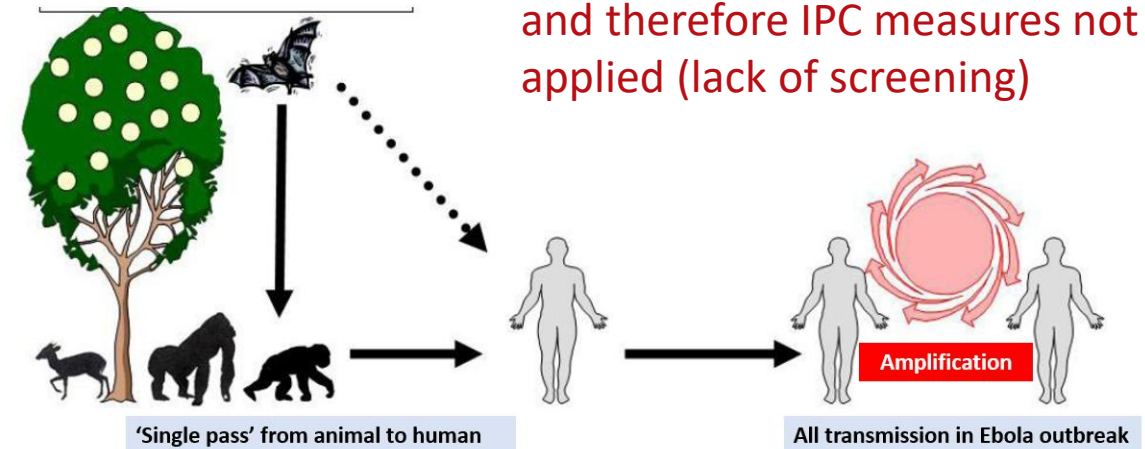
It is believed that fruit bats of the Pteropodidae family are the natural hosts of the Ebola virus

Introduced into the human population through close contact with infected animals,

- blood,
- secretions,
- organs

Interhuman transmission

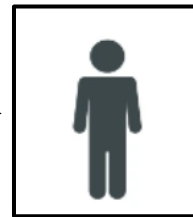
- Direct contact with the blood or secretions of an infected person
- Mother-to-child transmission
- Exposure to objects contaminated with infected secretions (such as needles, surfaces...)



Most HW infections occur because EVD was not suspected and therefore IPC measures not applied (lack of screening)



Contact with infected animals



Direct human-human contact or contact with body fluids or vomit



Outbreak

Unknown natural host reservoir

Transmission host



Symptoms and signs of EVD

FIRST STAGE

1. Fever
2. Body weakness
3. Headaches
4. Joints and back pain
5. Muscles pain
6. Eye redness
7. Skin rash

INTERMEDIATE STAGE

1. Signs and symptoms of the first stage, plus:
2. Diarrhea, abdominal pain
3. Vomiting
4. Dysphagia

ADVANCED STAGE

1. Bleeding
2. Mental confusion
3. rapid breathing
4. Convulsions and loss of consciousness

Patients suspected of EVD present mainly in the first stage of the disease illness symptoms that are difficult to distinguish from other types of common infections (for example, malaria, typhoid, or bacterial infections).

Take home: HCWs need a high index of suspicion, ensure screening (out and in patients), risk assessment to guide IPC precautions to ensure early identification and care of EVD
Patients and safe continuity of essential health services

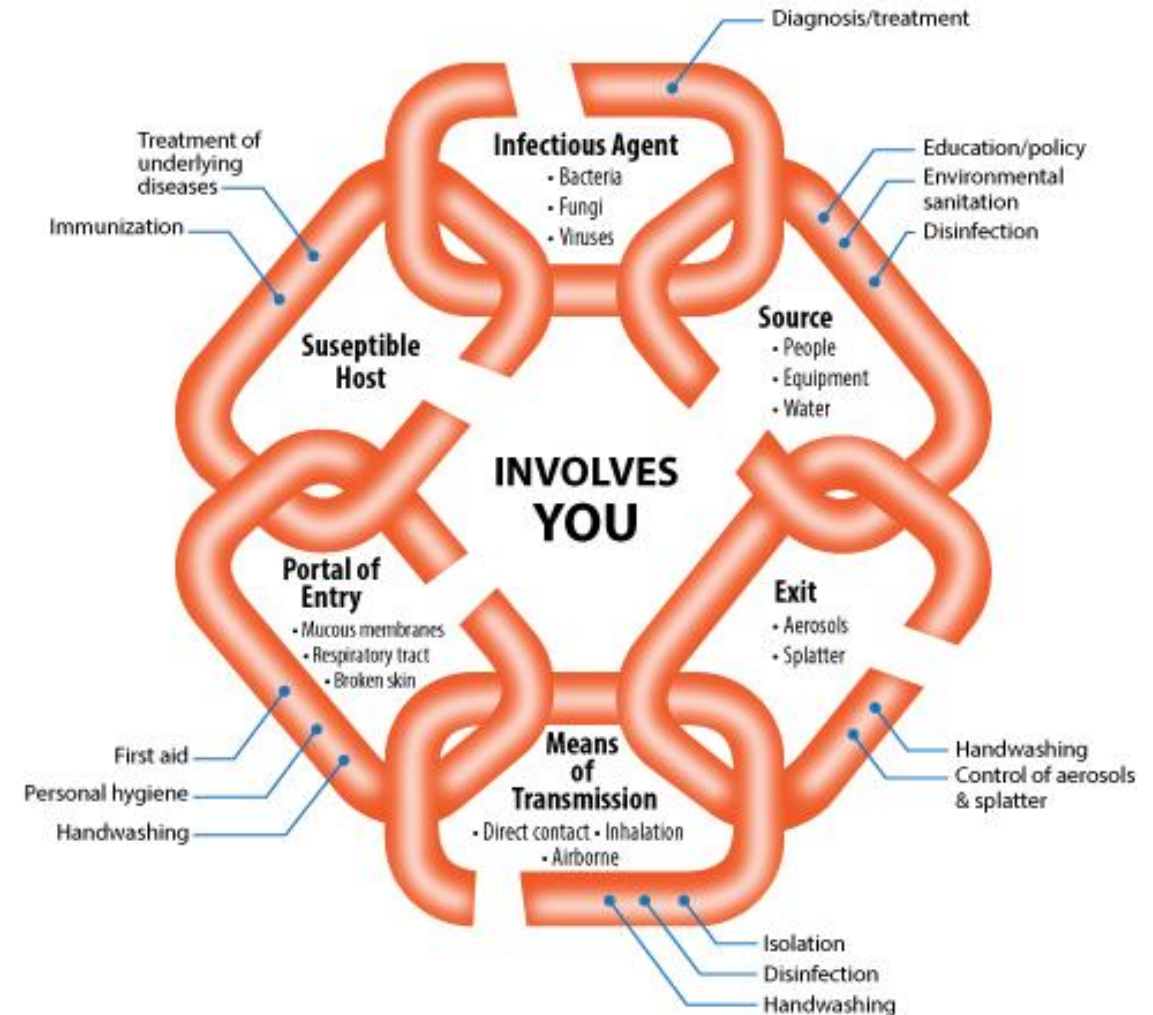


IPC and Ebola

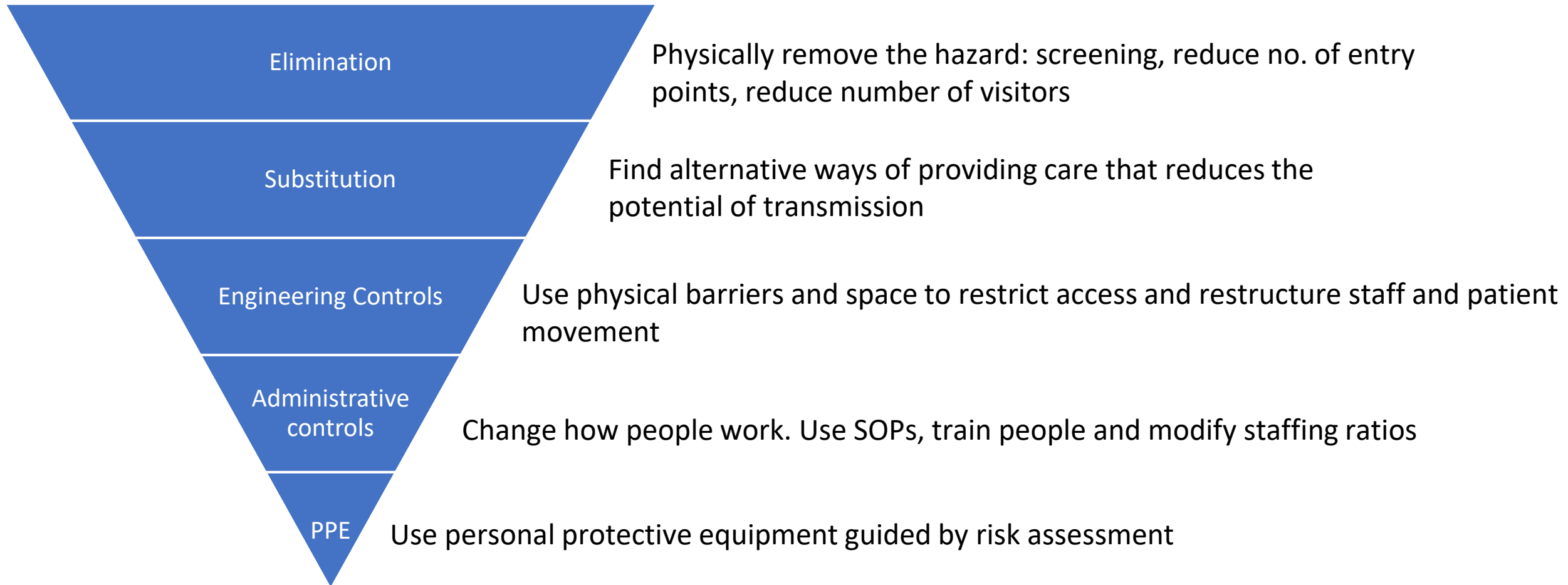
(What IPC measures can we put in place to break the chain of transmission in healthcare settings?)



- **Identification, isolation and rapid notification of suspected Ebola cases**
- **Standard precautions**
 - Hand hygiene
 - Wearing personal protective equipment (PPE)
 - Injection safety and sharps injury prevention
 - Safe waste management
 - Proper linens, environmental cleaning and sterilization of patient-care equipment
 - Respiratory hygiene
 - Risk assessment
- **Transmission based precautions** (standard precautions + contact + droplet precautions)
- Engineering controls and administrative measures



IPC hierarchy of Controls





Screening, Triaging, Isolation and Notification during an EVD outbreak

Many people will visit your healthcare facility! Some with Ebola symptoms. To protect yourself, your patients and your colleagues from Ebola, you must:



SCREENING

Patients in a designated area: Screen before entering the health facility



ISOLATION

Patients suspected of having Ebola, in a designated isolation area

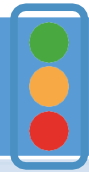


NOTIFICATION

So that patients suspected of having Ebola can receive care at a designated facility



Screening, Triage, and Isolation



Screening

- Observing patient, taking non-contact temperature, and asking questions
- Key outcome: determine **if** patient is suspected EVD case
- Does not require close or physical contact



Screening, Triage, and Isolation



Screening

- Observing patient, taking non-contact temperature, and asking questions
- Key outcome: determine **if** patient is suspected EVD case
- Does not require close or physical contact

Triage

- Assessment of patient to determine severity of illness and prioritize care
- Key outcome: determine **how sick** is the suspected EVD case
- Likely requires close or physical contact

Screening, Triage, and Isolation





Screening

- Observing patient, taking non-contact temperature, and asking questions
- Key outcome: determine **if** patient is suspected EVD case
- Does not require close or physical contact

Triage

- Assessment of patient to determine severity of illness and prioritize care
- Key outcome: determine **how sick** is the suspected EVD case
- Likely requires close or physical contact

Isolation

- Separation of patient from others (to reduce risk of contact/spread)
- Key outcome: patient is transferred for testing and further care
- Patient care in isolation area likely requires close or physical contact

Screening



What is it?

- Identifies individuals that meet suspect case definition

Where should it be done?

- **Before entrance** into a healthcare facility

What is process?

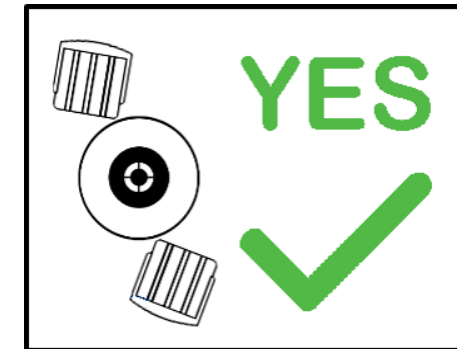
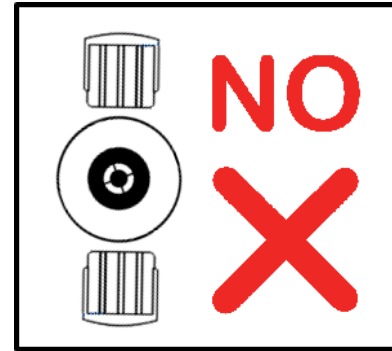
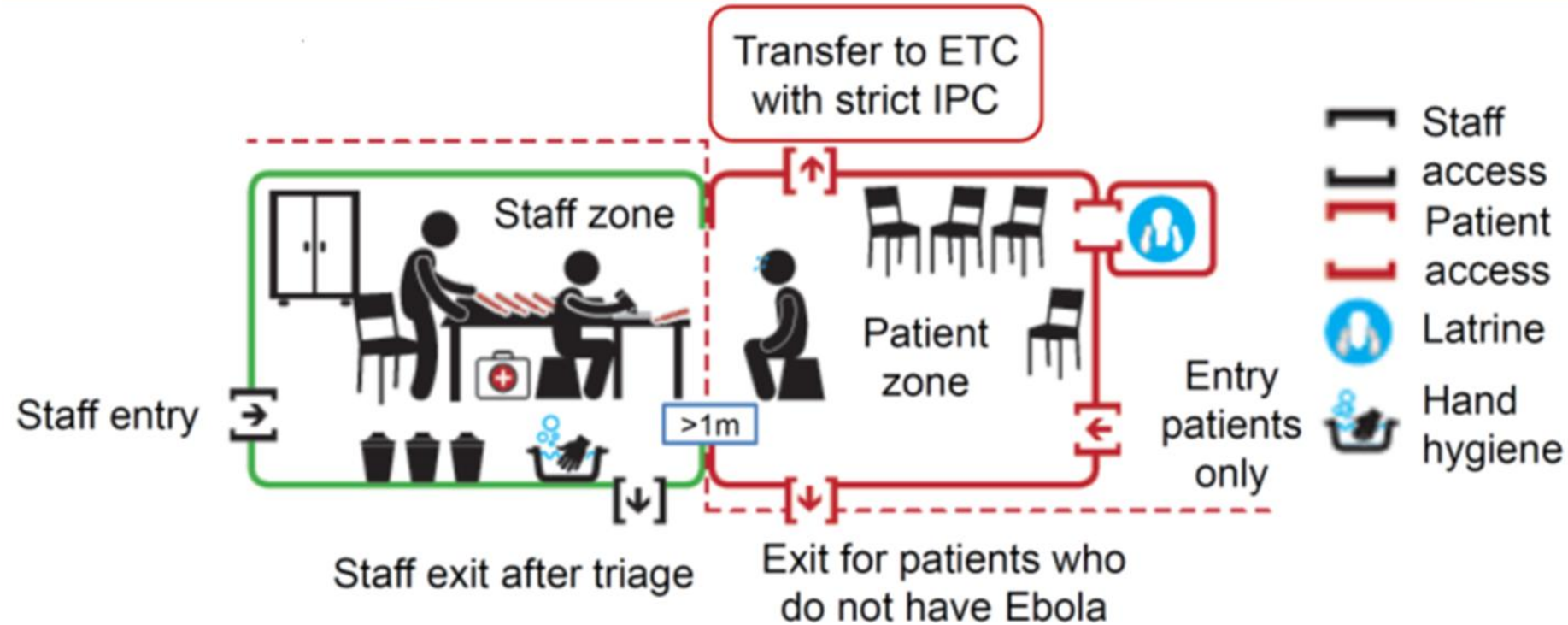
- Assessing for **symptoms** (including fever) and **exposures**

Who should be screened?

- **Everyone** entering the facility (including patients and health workers)



Screening setup



- Maintain at least 1 meter and a physical barrier (table or desk) between staff and individuals requiring screening
- Provide waiting area with adequate space
- Provide access to a dedicated toilet (if feasible)



Using an infrared thermometer



Read thermometer screen

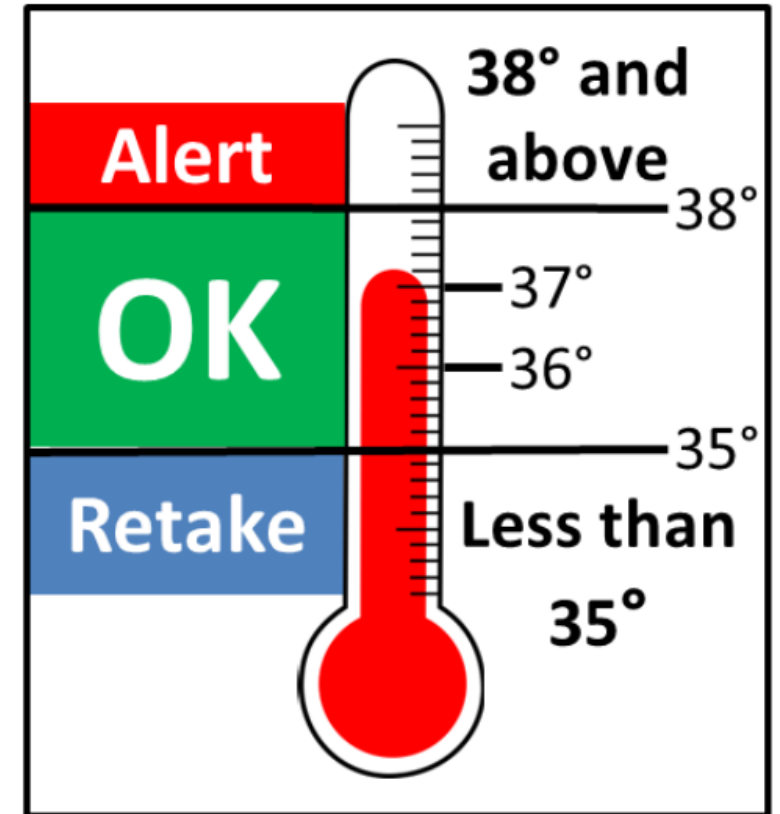
- If less than 35°C, take again
- If 38°C or higher, fever indicated



If symptom (e.g., fever) and exposure criteria met:

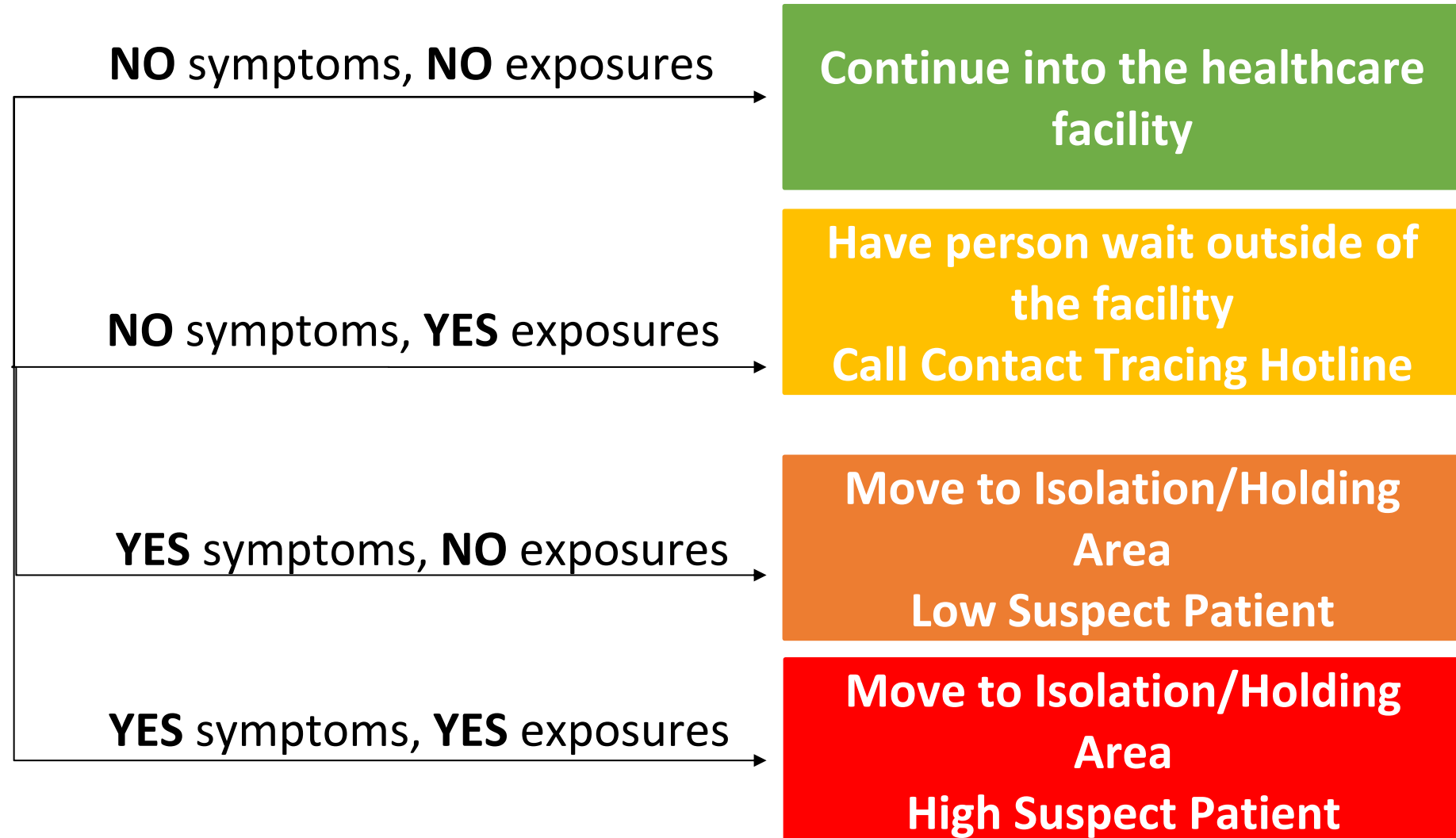
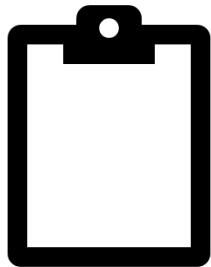
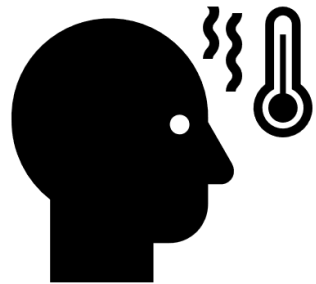
- **Notify supervisor**
- **Escort patient to the isolation area**

- Read instructions for calibration
- Change batteries frequently





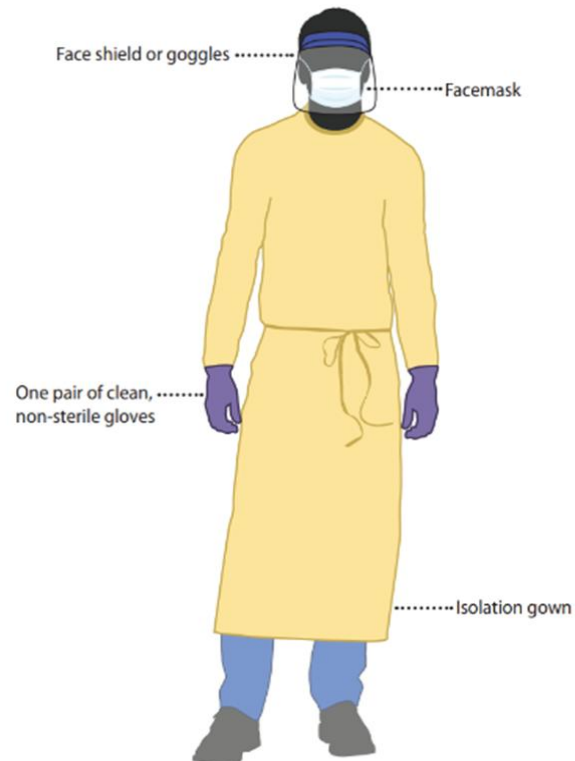
How to use the screening algorithm/job aid





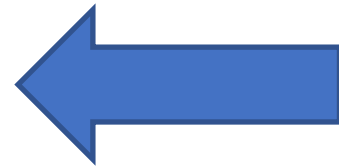
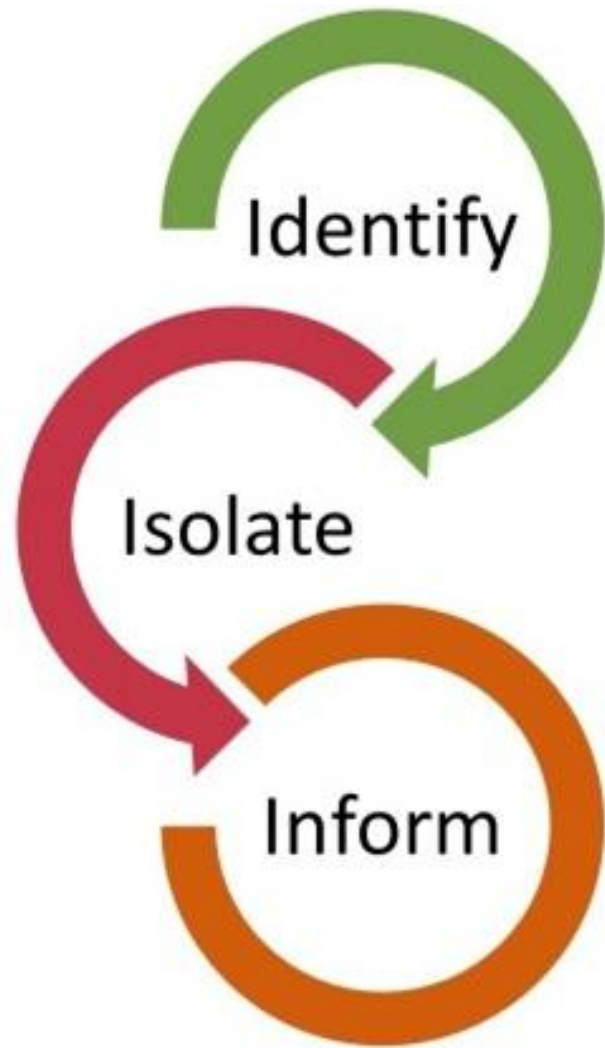
PPE use during screening

- If the screener **cannot maintain distance** (for example, needs to assist the patient), then PPE is put on to protect from risk of exposure to blood or other body fluids



(Gloves, medical mask, eye protection and gown)

Refer to Job Aid 5b for more on PPE use during screening



Healthcare Facility
EVD Holding/Isolation

Isolation Area setup



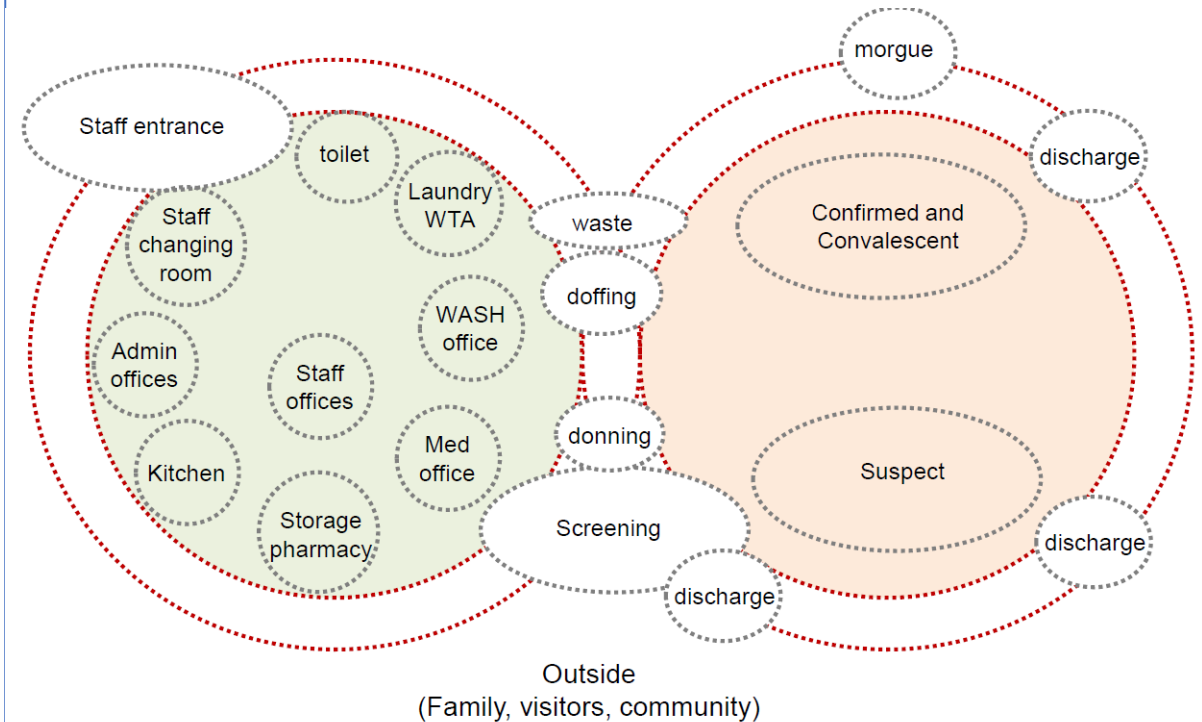
- ***Separated from patients and healthcare workers at facility***
 - Clearly demarcated with a barrier and signage
 - Chairs/beds between individuals kept at least 1m apart
 - Dedicated toileting (e.g., latrine, commode), ideally private
 - Separate entrance and exit (away from other patient care areas)
- ***ONLY for suspected Ebola patients***
 - Restrict access (except for designated Ebola response team members)
 - Assign someone to monitor individuals (including staff) entering isolation area
- ***Equipment designated to the isolation area (not shared with other parts of the facility)***

Setting up isolation



Built environment

- Indicate high and low risk zones before starting patient admission
- Use barriers/scaffolding to guide movement in outdoor spaces or large wards
- Prioritize using areas with a solid walls and ability to restrict access (doors or gates)
- Patient care areas should have adequate natural ventilation and natural light



Isolation Area: Examples



- Existing facilities can be modified to serve as isolation areas
 - Outdoor areas
 - Empty wards
 - Temporary tents
- Isolation area is for **temporary use** until transfer can be arranged for testing and further evaluation/care





Isolation Area Supplies

For patients

- Chairs or beds
- Access to toilet facilities
- Food and water
- Hand hygiene station

Patient care

- Designated equipment for isolation area
- PPE for healthcare workers
- Hand hygiene stations for healthcare workers

Cleaning and disinfection

- 0.5% chlorine solution (for disinfection) or other disinfectant
- Soap and water
- Cleaning equipment (buckets, cloths, mop)

Waste management

- Biohazard waste bins
- Inside isolation area
- PPE doffing area

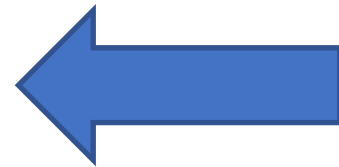
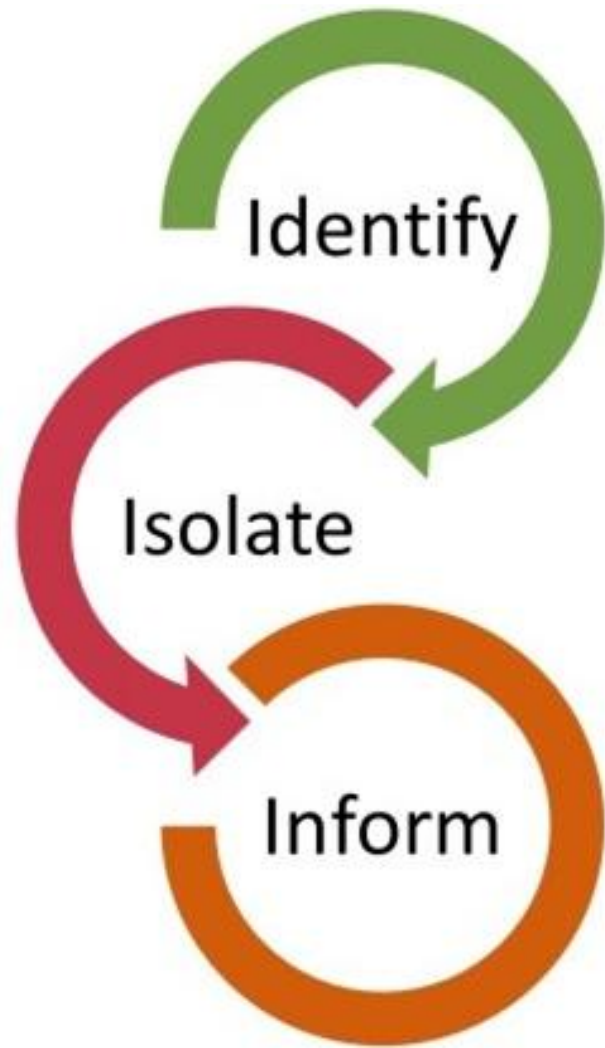


PPE use in Isolation Area

- HCW puts on PPE for patient care activities in the isolation area



Refer to Job Aid 5a for more on PPE use in the isolation area



Notification

Who to notify?



- **Always call call center: Toll free**
- Will perform second screening on the phone with the clinician
- **Notify supervisor**
 - For awareness and coordination
- **Notify district surveillance point of contact**
 - District rapid response team and surveillance officers will provide support

PPE for EVD management



Risk stratification	PPE items
Physical contact with patients with suspected or confirmed EVD, their body fluids or objects contaminated by their body fluids	• Examination gloves (double gloves) • Eye protection (Face shield/goggles) • Medical mask • Coverall or gown with hood • Disposable aprons • Gumboots
For dead body management and cleaning/decontamination	On top to the items above, heavy duty gloves and heavy-duty aprons are recommended.
*Mixing disinfectants	Gloves, respirator, apron/disposable gown, goggles/face shield

Personal Protective Equipment use Principles



- PPE is the least effective safety control if used in isolation of the engineering and administrative controls
- Its success is dependent on availability of an enabling environment and guidance for appropriate risk assessment
- Proper PPE use is a motor skill. You must do it to learn it.
- Safety considerations
 - never touch your face while wearing PPE
 - Change PPE immediately if it becomes contaminated or damaged
 - PPE should not be adjusted during patient care
 - if there is concern and/or breach of these practices, leave the patient care area when safe to do so and properly remove and change the PPE
 - Always remove carefully to avoid self-contamination

**STAFF (incl support staff) MUST UNDERGO SPECIAL TRAINING TO ENSURE THEY CAN SAFELY
PUT ON AND TAKE OFF PPE**



EVD Standard Operating Procedure Job Aides



Putting on and taking off PPE in the context of Ebola Virus Disease (EVD) job aide for COVERALLS		
Putting on PPE (Coveralls)		
1	Remove all personal items (jewelry, watches, phones, pens, etc.)	☐
2	Put on the scrub suit and rubber boots	☐
3	Perform Hand Hygiene	☐
4	Put on first pair of gloves (inner gloves) – Examination, nitrile gloves	☐
5	Put on coverall	☐
6	Put on face mask	☐
7	Put on face shield OR goggles	☐
8	Put on head and neck covering OR hood attached to coverall	☐
9	Put on waterproof apron (disposable or heavy duty)	☐
10	Put on a second pair of gloves (outer gloves) over the cuff of the coverall. Do not use adhesive tape to attach the gloves.	☐

EVD Standard Operating Procedure Job Aides



Taking off PPE (Coveralls)		
Points to remember when removing PPE		
• Always remove PPE under the direction and supervision of a trained observer (colleague)		
• Make sure the outside of the PPE does NOT touch your skin or any part of your body.		
• Contaminated hands (bare and gloved hands) are the most common way to transfer contaminated material to the eyes, nose and mouth.		
• Remove the outermost PPE first; this is likely to be the most contaminated PPE.		
• Remember to close your eyes when removing the PPE over your head.		
• Keep gloved hands clean so that they can remove PPE without contaminating the skin.		
• Dispose of disposable PPE in the medical waste bin.		
Place reusable PPE (thick rubber gloves, aprons, goggles, some face shields) in a designated bucket		
1	Perform hand hygiene on gloved hands	☐
2	Remove the apron - by bending forward and taking care to avoid contaminating your hands	☐
3	Perform hand hygiene on gloved hands	☐
4	Remove head and neck covering or hood – starting from the bottom of the hood on the back and rolling from back to front and from inside to outside	☐
5	Perform hand hygiene on gloved hands	☐
6	Remove coverall and outer pair of gloves– In front of a mirror, tilt head back to reach zipper, unzip completely without touching any skin or scrubs, and start removing coverall from top to bottom. After freeing the shoulder, remove the outer gloves while pulling the arms out of the sleeves. With inner gloves roll the coverall from the waist down and from the inside of the coverall, down to the top of the boots. Use one boot to pull off coverall from the other boot and vice versa, then step away from the coverall	☐
7	Perform hand hygiene on gloved hands	☐
8	Remove eye protection - by pulling the string from behind the head (keep eyes closed)	☐
9	Perform hand hygiene on gloved hands	☐
10	Remove face mask - remove from behind the head (keep eyes closed), by first untying the bottom string above the head and leaving it hanging in front and then the top string next, from behind the head	☐
11	Perform hand hygiene on gloved hands	☐
12	Remove rubber boots without touching them (or overshoes if applicable). If the same boots are to be used outside the area, keep them on, but clean and decontaminate them properly before leaving the area where you are undressing.	☐
13	Perform hand hygiene on gloved hands	☐
14	Remove the inner pair of gloves	☐

EVD Standard Operating Procedure Job Aides



PPE for screening and triage in the context of Ebola Virus Disease (EVD) job aide	
Screening	
• Screening is a sorting process encompassing observation of the patient, taking the patients temperature with an infra-red thermometer, and asking the patient questions (symptoms and potential EVD contact history).	
• The key outcome of screening is to determine if the patient is a suspected EVD case.	
• Screening does not require close or physical contact with the patient. It is recommended that screening is conducted using a no touch technique maintaining a distance of at least 1m.	
o When a no touch technique and distance of at least 1m can be maintained – additional PPE is not recommended (note staff should wear a medical mask for COVID protection and ensure hand hygiene)	
o When a no touch technique or distance of at least 1m cannot be maintained – staff are advised to wear the following PPE:	
• Medical mask	
• Eye protection (protective goggles or face shield)	
• Gown	
• Examination gloves	
Triage	
• Triage involves assessment of patients using validated tools to determine the severity of illness and prioritise care.	
• The key outcome of triage is to determine how sick the suspected EVD case is.	
• Triage is likely to require close or physical contact with the patient for assessment.	
• Triage can take place in different locations depending on facility size and layout. If triage occurs at the point of screening, the following PPE is recommended:	
• Medical mask	
• Eye protection (protective goggles or face shield)	
• Gown	
• Examination gloves	
• If triage occurs within the isolation area, separate from screening, the following PPE is recommended:	
• Medical mask	
• Eye protection (protective goggles or face shield)	
• Coverall or gown	
• Waterproof apron	
• Examination gloves (2 pairs)	

Putting on PPE (Procedure for gown)		
1	Remove all personal items (jewelry, watches, phones, pens, etc.)	☐
2	Put on the scrub suit and rubber boots	☐
3	Perform Hand Hygiene	☐
4	Put on gown	☐

EVD Standard Operating Procedure Job Aides



6	Put on face shield OR goggles	☐
7	Put on a pair of gloves over the cuff. Do not use adhesive tape to attach the gloves.	☐
8	Self-check in mirror and with buddy to ensure proper fit and no breeches.	☐

Taking off PPE (procedure for gown)		
1	Perform hand hygiene on gloved hands	☐
2	Remove gown and gloves – untying the knot first, then pulling from the back to front, rolling it from inside to outside	☐ 
3	Perform hand hygiene	☐
4	Remove eye protection - by pulling the string from behind the head (keep eyes closed)	☐ 
5	Perform hand hygiene	☐
Remove face mask		
If overhead straps - remove from behind the head (keep eyes closed), by first untying the bottom string above the head and leaving it hanging in front and then the top string next, from behind the head		
If ear loops – hold and unhook both ear loops and gently lift the mask away from your face		
		
6	Perform hand hygiene	☐



OBSTETRIC DEPARTMENT (01)

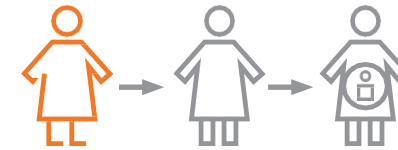


Re-screening in the obstetrics department is indicated. Use the following PPE based on patient assessment.

STANDARD PPE for deliveries

1. Face shield, or surgical mask and goggles
2. Long-sleeved gown
3. Long gloves to the elbows
4. Rubber boots

EVD survivor who becomes pregnant after recovery



All other pregnant women not in the risk group for EVD transmission during pregnancy



OBSTETRIC DEPARTMENT (02)



FULL PPE

For deliveries **with risk of EVD transmission**

1. Headgear
2. Surgical mask
3. Goggles or face shield
4. Long-sleeved coverall or gown
5. Apron
6. Double pairs of gloves including long gloves to the elbows, outside
7. rubber boots

Pregnant woman with EVD



Pregnant woman who survives EVD
(with an ongoing pregnancy)



Pregnant woman in contact with an EVD case
(for 21 days, monitoring period)





Hand Hygiene



Washing
with soap & water (when hands
are visibly soiled)



Disinfecting with alcohol-
based hand rub (ABHR)



With weak (0.05%)
chlorine

**Use on gloved hands.
ONLY use on bare hands
if soap and water or
ABHR are not available**



Hand hygiene

Hand hygiene is the most important measure to prevent infection



THE REPUBLIC OF UGANDA
MINISTRY OF HEALTH



GOD AND MY COUNTRY

Your 5 Moments FOR HAND HYGIENE



1. BEFORE TOUCHING A PATIENT	WHEN? Clean your hands before touching a patient when approaching him/her. WHY? To protect the patient against harmful germs carried on your hands.
2. BEFORE CLEAN ASEPTIC PROCEDURE	WHEN? Clean your hands immediately before performing a clean / a septic procedure. WHY? To protect the patient against harmful germs including the patients own from entering his/her body.
3. AFTER BODY FLUID EXPOSURE RISK	WHEN? Clean your hands immediately after an exposure risk to body fluids (and after glove removal). WHY? To protect yourself and the health-care environment from harmful patient germs.
4. AFTER TOUCHING A PATIENT	WHEN? Clean your hands after touching a patient and his/her immediate surroundings when leaving the patient's side. WHY? To protect yourself and the health-care environment from harmful patient germs.
5. AFTER TOUCHING PATIENT SURROUNDINGS	WHEN? Clean your hands after touching any object or furniture in the patient's immediate surroundings, when leaving even if the patient has not been touched. WHY? To protect yourself and the health-care environment from harmful patient germs.



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Patient Safety

SAVE LIVES
Clean Your Hands

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WHO acknowledges Hopital Universitaire de Genere (HUG), in particular the members of infection control programs, for the active participation in developing this material.

How to Handrub?

RUB HANDS FOR HAND HYGIENE! WASH HANDS WHEN VISIBLY SOILED

Duration of the entire procedure: 20-30 seconds

1a



Apply a palmful of the product in a cupped hand, covering all surfaces;

1b



2



Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa;

3



Right palm over left dorsum with interlaced fingers and vice versa;

4



Palm to palm with fingers interlaced;

5



Backs of fingers to opposing palms with fingers interlocked;

6



Rotational rubbing of left thumb clasped in right palm and vice versa;

7



Rub hands palm to palm;

8



Once dry, your hands are safe.



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SAVE LIVES

Clean Your Hands

How to Handwash?

WASH HANDS WHEN VISIBLY SOILED! OTHERWISE, USE HANDRUB

Duration of the entire procedure: 20-30 seconds

0



Wet hands with water;

1



Apply enough soap to cover all hand surfaces;

2



Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa;

3



Right palm over left dorsum with interlaced fingers and vice versa;

4



Palm to palm with fingers interlaced;

5



Backs of fingers to opposing palms with fingers interlocked;

6



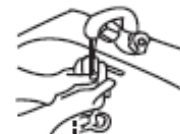
Rotational rubbing of left thumb clasped in right palm and vice versa;

7



Rub hands palm to palm;

8



Rinse hands with water;

9



Dry hands thoroughly with a single use towel;

10



Use towel to turn off faucet;

11



Your hands are now safe.



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Patient Safety

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SAVE LIVES

Clean Your Hands

HANDLING OF SHARP OBJECTS



Discard needles and syringes immediately after use and at the point of care in a secure box



Do not recap the needles



Do not leave the needles in the vial or bottle



Protect people from exposure to used injection equipment



CLEANING AND DISINFECTION OF THE ENVIRONMENT (1)



1. **PERFORM** hand hygiene (soap and water recommended)
2. **PUT** on PPE (household gloves, waterproof gown, apron, boots, mask, goggles or face shield)
3. **TAKE OUT** waste and laundry
4. **CLEAN AND DISINFECT** the area using the 4-bucket technique (next page)

Always clean before disinfecting, using disinfectant on a surface containing debris will eliminate the effectiveness of the disinfectant.

N%: Use a 0.5% chlorine solution to eliminate Ebola virus.

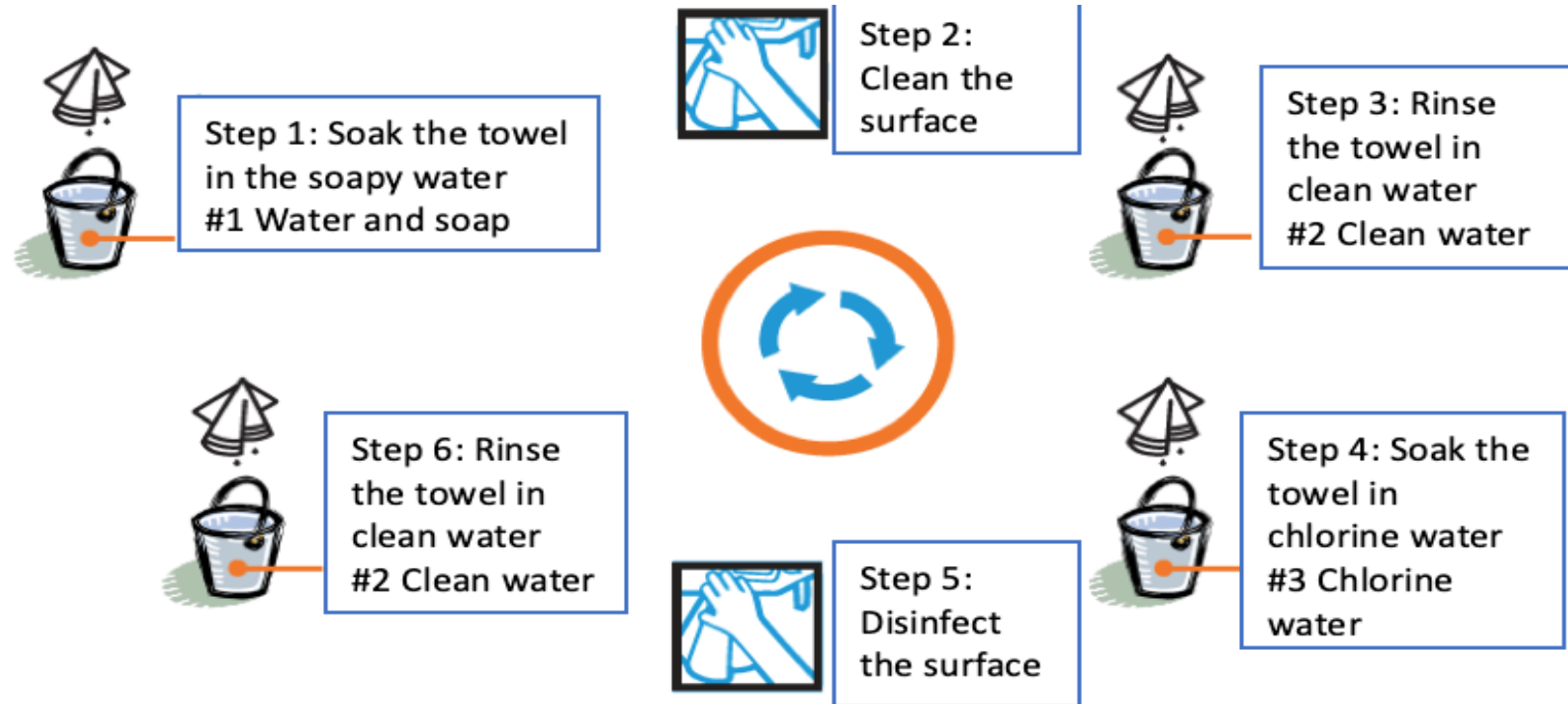
Always respect the contact time of 10 minutes.

5. **LET** the surface dry naturally
6. **EMPTY** wastewater in patient latrines
7. **REMOVE** PPE according to technique
8. **PERFORM** hand hygiene (soap and water recommended)

Never spray disinfectant on PPE and/or in clinical care areas, whether occupied or not.



CLEANING AND DISINFECTION OF THE ENVIRONMENT (2)



To avoid contamination and keep the disinfectant effective, change the water (bucket #2) and towel between each room/bed and/or when the water is dirty.

Cleaning and disinfection



OLD IPC PRACTICE



SPRAYING

Spraying with chlorine solution was widely used throughout previous EVD outbreaks in Africa: for dead bodies, disinfection of personal protective equipment (PPE), on health care workers' scrubs and skin, etc.

This practice is no longer recommended; it has caused many adverse events in HCWs.²

NEW IPC PRACTICE



NO SPRAYING

Instead of spraying with a chlorine solution, remove any organic material with a towel using soap or detergent and water first, then disinfect using a disinfectant (i.e., 70% alcohol and/or chlorine).



Waste Management



The waste is segregated according to the type of waste:
Domestic waste and infectious waste (red waste and sharps containers) at the healthcare facility

Note: All waste from the Ebola treatment/ isolation units is managed as infectious waste



Providing safe and dignified burials

- Provides details on how to perform a safe and dignified burial
 - Team composition
 - Constitute materials needed
 - Key points
 - Burial team wear full PPE
 - Carefully place body in body bag, the body should not be sprayed, washed or embalmed
 - Close bag and wipe the outside side of the bag with 0.5% chlorine
-
- Refer to SOP for more detailed guidance for dignified burial

EVD Standard Operating Procedure Job Aides



Providing Safe and Dignified Burials during outbreaks of Ebola Virus Disease (EVD) cases job aide

This document is a summary step-by-step procedure for safe burial of a person who as died from confirmed, or probable EVD.

Step 1: Prepare the team	One team should comprise of: • 4 members, wearing full PPE for field situation. If possible, a female member should be available for assisting with burial of females. • 1 technical supervisor, not wearing PPE • 1 communicator, a person who interact with family and community, not wearing PPE • 1 religious representative, not wearing PPE	
Step 2: Equipment	PPE for burial teams: • Scrub suit • Protective glasses or face shield • Mask • Hair net/Headgear/ Protective hood • Gloves • Heavy duty gloves • A coverall • Rubber boots OR if not available, shoes with puncture-resistant soles and disposable overshoes	Materials needed: • Soap and drinking/clean water (for the soap solution) • Strong chlorine solution (0.5%, labelled) • Weak chlorine solution (0.05%, labelled) • 4 buckets (1 = soapy water, 2 = clean water and 1 = 0.5% chlorinated water) • Cleaning cloth (rags or towels) • Squeegees with handles - <i>not mops</i> • Biosafety box (if required) • Infectious waste bag • Body bag
Step 3: Arrival of the burial team	Prepare burial with family and evaluate risks: • Team leader must brief the burial team about how to conduct a dignified burial in this particular religious and social context. • On arrival the staff should not be wearing PPE upon arrival. Greet the family and offer your condolences before unloading the necessary material from the vehicles. Request respectfully for a family representative. • The communicator should contact a local faith representative at the request of the family members to arrange to meet at the place of collection for the burial of the deceased. • The communicator and the faith representative should work together with the family witness, to make sure that the burial is carried out in a dignified manner. • The Burial team leader should ensure that the family witness and other family members have understood these procedures. Obtain the formal agreement of the family's representative before proceeding. • Identify the family members who will be participating in the burial rituals. If the family has prepared a coffin, identify 4 family members to carry the coffin. • Verify that the grave is dug. If this is not the case, send selected people to dig the grave at the cemetery or at the area identified by the family. This site should be agreed upon by the local authorities and neighbours. • Propose to one or two family members to witness the preparation activities of the body of the deceased patient on behalf of the other family members. • Ask the family witness if there are any specific requests from the family or community, for example, about the personal effects of the deceased. The family should decide what to do with the personal effects of the deceased (burn, bury in the grave or disinfect). • Allow the family witness, family members to take pictures of the preparation and burial. • Refer to full SOP for details of the procedures for a Christian and Muslim burial.	

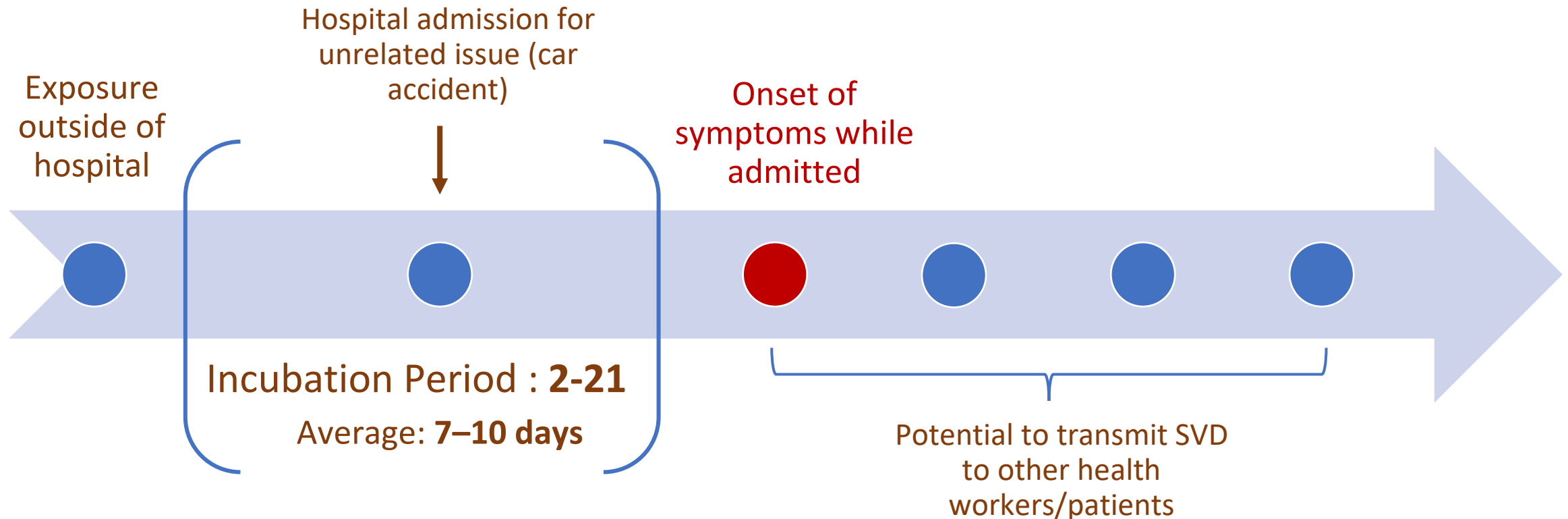


Inpatient Surveillance during an EVD outbreak



Why perform inpatient Surveillance?

To detect SVD patients who may have been asymptomatic at time of admission but develop symptoms during their hospital stay





In patient screening Process



- Apply standard precautions for all patients.
- Take temperature at least **twice** a day for all inpatients
- Assess the patient at least once a day or immediately in the presence of high fever, according to the definition of a suspected or probable case (per case definition)
- Complete the screening register.



[illegible]



Identifying, health worker Ebola exposures

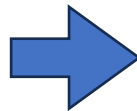


Identifucation

- Encourage health workers to self-report potential exposures to SVD within the facility
- Create a work environment that encourages early and open disclosure of exposures in a non-punitive manner
- Surveillance, and investigation teams during the contact tracing process,
- Case and/or family members/proxies,
- Ring IPC teams

Investigation

- Use of the HCW exposure Checklist



- ✓ Provide better understanding of IPC lapses that led to exposure
- ✓ Find areas for improvement of IPC practices
- ✓ Prevent further exposures

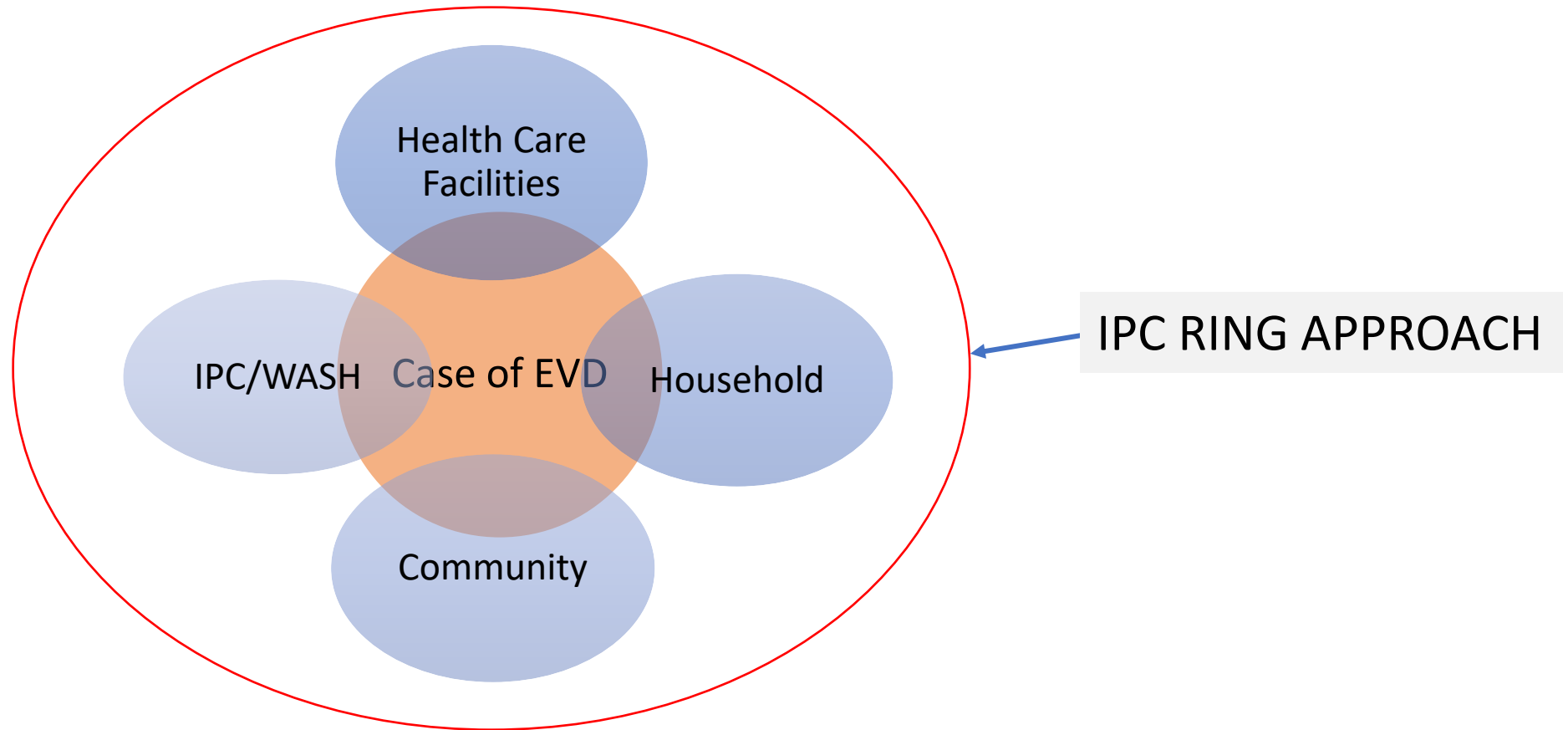
Risk assessment form for health workers with an occupational exposure to Ebola

This form should be completed for all health workers who have been exposed to a patient with Ebola, their body fluids, or objects contaminated with body fluids. The form aids in the risk assessment for health workers (HW's) after exposure to determine the risk categorization of each HW and inform the management of the exposed HW based on risk. This form is applicable for the Ebola virus (EBOV) belonging to Sudan Ebolavirus species and Zaïre Ebolavirus species in the Genus Ebolavirus.

1. Interviewer information	
a. Interviewer name:	
b. Interview date:	
c. Interviewer phone number:	
d. Verbal consent obtained:	☐ Yes ☐ No (specify reason)
2. Health worker information	
a. Last name:	
b. First name:	
c. Age:	
d. Sex	☐ Male ☐ Female ☐ Prefer not to answer
e. Village of residence:	
f. District:	
g. Phone number:	
h. Occupation:	☐ Medical doctor ☐ Nurse ☐ Midwife ☐ Healthcare student ☐ Radiology /X-ray technician ☐ Phlebotomist ☐ Physical therapist ☐ Nutritionist/dietitian ☐ Pharmacist/technician or dispenser ☐ Laboratory personnel ☐ Volunteer ☐ Patient transporter ☐ Office staff/Administrator ☐ Cleaner (hygienist) ☐ Catering staff ☐ Ambulance driver ☐ Vaccinator ☐ Security guard ☐ Traditional healer ☐ Community health worker ☐ Other (specify):
i. Which patient care units/service areas are you	☐ Ebola Treatment Unit ☐ Ebola Screening/triage ☐ Outpatient Department (OPD) ☐ Inpatient Department (IPD) ☐ Emergency ☐ Maternity



What is the IPC Ring Approach?



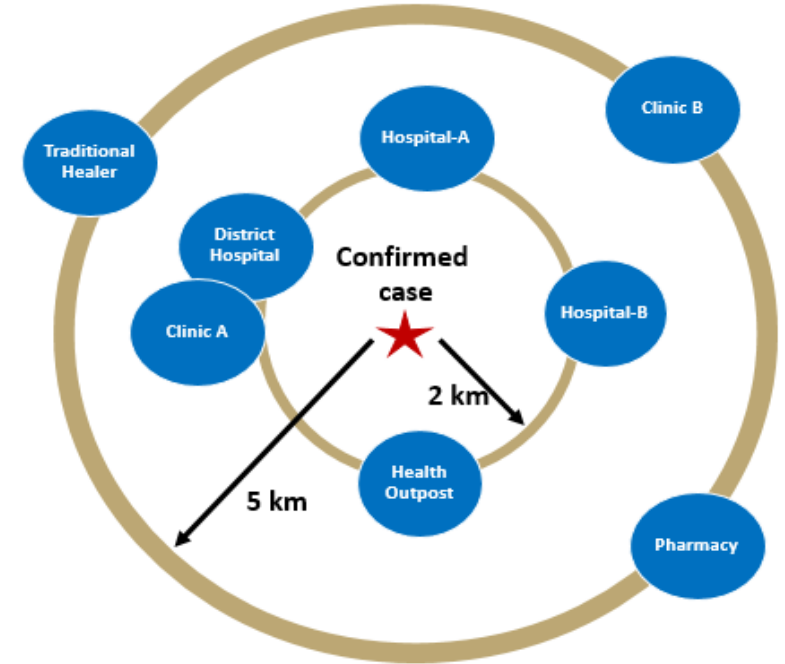
Definition: The IPC ring approach rapidly mobilizes teams to assist affected health facilities and the community in implementing IPC measures to reduce Ebola transmission in a predetermined risk area whenever a case is identified



IPC RING approach



- Ring IPC is an intensive, targeted approach to:
 1. Decontaminate health facilities, affected households, and control transmission
 2. Increase detection of SVD through screening and triage
 3. Manage healthcare worker occupational risk exposures and management
 4. Rapidly isolate suspect SVD patients, and quickly notify public
 5. Reinforce use of Standard Precautions during patient care
- Supported by supervision (i.e., capacity enhanced) to ensure effective implementation of Screening, Isolation, and Notification.



Example of an IPC ring; distances can vary (rural vs. urban, number of facilities, etc.)



Health facility EVD IPC/WASH readiness assessment



EVD Standard Operating Procedure Job Aides



IPC Scorecard job aide

- Score determines the frequency of monitoring:
- Red (0 - 49%) = Visit daily and re-assess after 2 weeks
 - Yellow (50 - 79%) = Visit 2-3 times per week and re-assess after 3 weeks
 - Green (80-100%) = Visit once per week and re-assess after 4 weeks

Components	Scoring	Audit Criteria	Evaluation method
IPC leadership	Each criterion is assessed as yes or no, 1 or 0 respectively.	1. The facility has an IPC Committee, or an IPC focal person. 2. The facility has EVD-specific SOPs related to IPC. 3. During the last 2 weeks, the facility has held at least one EVD IPC meeting.	Direct observation Document review
Staff training	Criterion 1 is assessed as a yes or no question, 1 or 0. Criterion 2 is assessed as 1 if all parameters are checked, otherwise 0	1. All health workers have been trained on IPC practices within the last 6 months. 2. Health workers have been trained on the following IPC practices related to Ebola: • Screening • Isolation • Hand Washing • PPE • Injection Safety • Environmental Cleaning and disinfection • Waste management	Survey Document review
Screening	Each criterion is assessed as yes or no, 1 or 0 respectively.	1. The health facility has a screening station at each open entry point into the health facility. 2. There is a distance of at least one meter between patient/visitor and screener. 3. A functional <u>thermoflash</u> is available at screening points. 4. Temperature is correctly verified at screening points. 5. Suspected cases are referred to a holding/isolation area.	Direct observation Survey Document review

Key Points:

- 15 IPC components audited
- Each indicator has verification criteria which can be:
 - 1. Processes 2. Practices and/or 3. Materials / supplies
- Score assigned for each component
- Overall scores and actions
 - **Red (0-49%):** Visit daily and re-assess after 2 weeks
 - **Yellow (50-79%):** Visit 2-3 times per week and re-assess after 3 weeks
 - **Green (80-100%):** Visit once per week and re-assess after 4 weeks



Screen. Isolate. Notify.



1. Screening

- Do not touch patient
- Stay at least 2 meters from patient
- Take temperature
- Screen all patients using case definition algorithm



2. Isolate

- Avoid contact with patient/body fluid ($\geq 2\text{m}$)
- Explain to patient/family
- Transfer patient to isolation area



3. Notify

- SMS 'ALERT' to 6767
- AND
- Notify district surveillance person _____
- Surveillance officers and district rapid response team will provide support



4. Minimal Care

- Provide no/minimal touch care
- Wear extended PPE when entering isolation area
- Encourage patient to drink and eat



Clean and Dispose of Waste

- Wear PPE for cleaning
- Clean screening area after suspect patient using strong (0.5%) chlorine
- Clean isolation area and materials appropriately after patient is transferred to ETU
- Sequester solid and liquid Ebola waste from non-Ebola waste and dispose of appropriately

5. Transfer to ETU

- Ambulance will arrive to transport case
- District rapid response team will assist



Take home



- Implementation of IPC measures in health care
 - Screening and isolation protocols
 - hand hygiene
 - adequate personal protective equipment (PPE) supplies and rational use (risk assessment)
 - Proper waste management
 - Environmental cleaning
 - Disinfection
- Training of healthcare workers including support staff
- Ongoing monitoring and supervision for implementation to reduce risks of health care facilities amplifying the outbreak
- Ensuring the provision of safe and dignified burials
- Supporting IPC in community settings
 - Adequate WASH facilities, hand hygiene capacity and safe waste management
 - Community engagement and social mobilization to prevent and mitigate ongoing transmission



Key Resources

Uganda MOH IPC EVD SOPs

- Job aide 01 – IPC ring approach checklist
- Job aide 02 – Health facility cleaning and disinfection procedures during EVD
- Job aide 03 – Household cleaning and decontamination procedures during EVD
- Job aide 04 – IPC scorecard
- Job aide 05a – Putting on and removing PPE for EVD Coveralls
- Job aide 05b – PPE for screening and triage
- Job Aide 06a – Screening, triage and isolation during EVD
- Job aide 06b – How to use an infra-red thermometer
- Job aide 07 – Injection safety in the context of EVD
- Job aide 08 – Inpatient surveillance during EVD
- Job aide 09 – Sterilisation using an autoclave
- Job aide 10 – Healthcare waste management
- Job aide 11 - Ambulance decontamination
- Job aide 12 – Decontamination of patient mobile phones discharged from ETUs
- Job aide 13 – Management of HCWs with occupation exposures to EVD
- Job aide 14 – Providing safe and dignified burials during EVD
- Job aide 15 – Management of linen in the context of EVD
- EVD Screening tool



Link to the Job Aides



https://drive.google.com/drive/folders/1Uiuel-yC0y2i8zftSn-9EoDdfqWbN6hj?usp=drive_link



Thank You
Any Questions?