Ebola Virus Disease: Identify, Isolate, Inform

Anna Q. Yaffee, MD, MPH

Assistant Professor

Emory Department of Emergency Medicine



Identify – EVD Person Under Investigation

- What makes an EVD Person Under Investigation (PUI) recognizable?
- Case Definition A uniform set of criteria that defines a disease
 - Clinical Criteria Signs and Symptoms
 - Epidemiological risk factors travel (within known incubation period), exposure

Identify – EVD PUI Signs and Symptoms

 Remember – an EVD PUI is a person who has both consistent signs or symptoms AND risk factors

- Signs and symptoms include
 - Elevated body temperature or subjective fever
 - Fatigue
 - Muscle pain
 - Abdominal pain
 - Vomiting
 - Unexplained hemorrhage
 - Diarrhea
 - Severe headache

Identify – EVD PUI Risk Factors

 Remember – an EVD PUI is a person who has both consistent signs or symptoms AND risk factors

- An epidemiologic risk factor within the 21 days prior to the onset of symptoms include
 - Contact with blood or body fluids from a person who is sick with, or has died from, EVD
 - Contact with objects contaminated with the bodily fluids of a person who is sick with, or has died from, EVD
 - Contact with infected fruit bats or nonhuman primates
 - Semen from a man who has recovered from EVD
 - Travel to the geographical area where EVD is known to be present
 - Healthcare, laboratory, or burial work in the geographical area of risk

Identify – Screening

- Screening all patients for infectious diseases immediately upon arrival is key to reducing the risk of transmission
- Signage at entry (in multiple languages!) enables patients to self-identify
- Consider what a patient may touch/come in contact with



Identify – Screening Algorithm

- Screening at the front desk
 - Electronic or manual
 - Systematic
 - Algorithm with guidance on next steps
- Symptom/travel screen during triage



Identify – Points of Entry

- A PUI may present at many points of entry at your facility
 - Emergency Department
 - Clinic
 - Ambulatory Care Centers
 - General campus
- A PUI may present by ambulance
 - Preidentified as a PUI
 - Identified en route as a PUI
 - May not be identified as a PUI until arrival



Identify – Points of Entry, cont'd

- A PUI may walk in
 - Arrive by themselves
 - Brought by another person
- A PUI may present in a wide range of clinical acuity
 - Non-emergent
 - Emergent
 - Critical
 - Expired



Isolate

- The next step after identification of a PUI is isolation
 - Separation from others
 - Containment (e.g., masking)
 - Provider personal protective equipment
- Break the chain of infection!



Isolate – Isolation Room Preparedness

- Know where your isolation room is and the steps necessary to clear the area and prepare it for your patient
 - You may need to utilize a transition area to hold the patient before transport to the patient care room
 - Small room off to the side from triage, or an area in the waiting room away from others
 - Review the physical infrastructure, plan and train ahead of time
 - What materials are necessary to prepare in advance?

Isolate – Isolation Room Preparedness, cont'd

- The isolation room should be set up to minimize content in the room
- Keep a checklist of what needs to be brought in and out of the room
- Alert personnel (techs, registration etc) to isolation status of patient



Isolate – Checklist for Room Preparation

BEFORE PATIENT IS ROOMED

□Place PPE/equipment cart in front of the room

Remove all extra equipment

Ensure hand hygiene stations are full and operational

AFTER PATIENT IS ROOMED

Set up commode for the room
Ensure adequate waste bins
Isolation signage

Log sheet

Isolate – Consider the route to get to the isolation room

- Sometimes the shortest route is not the best route
 - How crowded will the hallway be?
 - How can the route be secured?
 - What rooms will be passed during transport?
 - If the patient can not walk, can a stretcher navigate the route?
 - What type of containment and PPE is needed?
 - How will the route be decontaminated?

Isolate – Infection Control Precautions

- Infection control precautions and PPE are a form of isolation
- Remember that a pathogen can have more than one mode of transmission



Isolate – Personal Protective Equipment

- Staff should be confident in the PPE they are wearing and the donning and doffing process
- PPE donning and doffing should be reviewed and practiced at regular intervals
- Just-in-time training on PPE when a patient presents can also be helpful
- No one should be contacting patient without adequate training and comfort in appropriate PPE!
- What is your plan for communication?

Isolate – Personal Protective Equipment, cont'd

"DRY" PPE

Single Use (Disposable) Face Shield

Single Use (Disposable) Surgical Mask

Single use (disposable) fluid-resistant gown that extends to at least mid-calf or coverall without integrated hood

Single use (disposable) gloves with extended cuffs. Two pairs of gloves should be worn.

At a minimum, outer gloves should have extended cuffs and must completely cover the gown cuff.



"WET" PPE

Single use face shield, surgical hood extending to shoulders, and N95 Respirator **OR** PAPR with a full-face shield, helmet, shroud (not shown)

Single use fluid-resistant or impermeable gown that extends to at least mid-calf **OR** coverall without integrated hood (not shown)

Two pairs of single use, disposable gloves. At a minimum, outer gloves should have extended cuffs.

Single use fluid-resistant **OR** impermeable apron that covers the torso to the level of the mid-calf

Single use fluid-resistant or impermeable boot covers that extend to at least mid-calf **OR** single-use fluid-resistant or impermeable shoe covers, which are acceptable only if used with a coverall with integrated socks (not shown)

Inform – Communication is critical!

- Why is communication so important?
- Communication lessons learned from COVID-19
 - Importance of establishing relationships and protocols BEFORE an event happens!
 - Make sure you are contacting a position/role rather than a specific person since people transition jobs

Inform – Internal First Calls

- Infectious Disease Specialist
- Infection Control
- Make sure you have all the necessary details!
 - Detailed exposure risk history



Inform – Internal Communications

- Do you have all these people/departments on your list?
- Who else is on your internal phone tree that isn't listed here?
- Who makes these phone calls at your facility?
- Who will be the lead, so contacts know who to call back?
- Will any of these contacts change if the event happens at night, on a weekend or holiday?
- Will your internal incident command structure be activated? (this is a great thing to exercise!)

Important Contacts

Charge RN
Infectious Disease
Infection Prevention/Epidemiology
ED leadership
Staffing
Safety
Security
Environmental Services
Supply chain
Emergency Management
Laboratory
Public Relations Team
Administration

Inform – External Communications

- Who else should you contact externally who is not listed here?
- Who makes those phone calls?
- Just like the internal phone tree, you need names and positions, multiple numbers and a plan if procedures differ depending on the time or day
- Communications is great to exercise, and consider inviting external stakeholders to your facility's exercise!

Important Contacts

- Public Health (Local/State)
- EMS/Transport
 - Specialty services not available at your facility
 - Pediatrics
 - Labor & Delivery
- Other resources specific to your institution, region or CONOPS plan

CDC

Identify, Isolate, and Inform Summary

Identify

- All hazard infectious risk
- Specific special pathogens based on case definition (symptoms + risk factors)

• Isolate

- Isolation room
- Infection control precautions
- PPE

• Inform

• Internal and external stakeholders, and the patient!

Identify, Isolate, and Inform Next Steps

- Document preparedness plan
- Practice, Practice, Practice
 - Communication Drills
 - Mystery Patient Drills
 - <u>www.netec.org</u> has special pathogen and toolkit drill and exercise template

Thank you!