BACKGROUND

- This is the largest Ebola outbreak in history
- The disease has infected and killed people in four West African nations
  - Guinea, Liberia, Sierra Leone and Nigeria
  - As well as a number of aid workers that were involved with providing healthcare from around the globe
- Its arrival in America was both planned and unplanned for by the CDC
- Spread through direct contact with body fluids (not through the air, food, or water)
- Infected persons are not contagious until symptoms appear
- UTMC has been actively meeting on Ebola since July of 2014.
INITIAL SCREENING IN LATE JULY

- International students were screened via questionnaire.
- The screening revealed no students returning from endemic areas and having contact with EVD patients.

Early Symptoms:
Ebola can only be spread to others after symptoms begin. Symptoms can appear from 2 to 21 days after exposure.
- Fever
- Headache
- Diarrhea
- Vomiting
- Weakness
- Stomach pain
- Lack of appetite
- Unexplained bleeding
- Joint & muscle aches

TRAVEL REGISTRY

- Student, faculty and staff travelling outside of the U.S. are currently being asked to complete and online travel registry.
- http://www.utoledo.edu/cisp/alerts.html
- In addition the Transportation Security Administration (TSA) is also updating local health authorities regarding travel to endemic areas.
- ODH has implement a “strengthened quarantine” strategy.
- Web Page for Ebola
- http://www.utoledo.edu/depts/infectioncontrol/CurrentTopics.html
SCREENING IN THE ED AND CLINICS

Instructions for Initial Assessment and Isolation of Patients at Risk for Ebola Viral Disease (EVD)

**UTMC Clinics**

**Common EVD Signs/Symptoms**

- Fever (subjective or ≥ 100.4°F or ≥ 38°C)
- Breathing inside and outside of the body
- Headache
- Rash
- Joint and muscle aches
- Red eyes
- Weakness
- Runny nose
- Cough
- Vomiting
- Sore throat
- Diarrhea
- Chest pain

**Initial assessment and isolation:**

1. Immediately ask about high risk exposures in the past 21 days:
   a. Travel to Africa
   b. Contact with a patient known to have Ebola
2. Patient presents with symptoms noted above.
3. If symptoms are present but NO high risk exposure in the past 21 days, please proceed with routine assessment and evaluation for more typical infectious disease using routine infection control guidelines.
4. If symptoms are present AND high risk exposure in the past 21 days exist, please proceed as noted below:
   a. Immediately hand a surgical mask to the patient.
   b. Isolate the patient in a separate room.
   c. Contact Dr. Smith at 439-485-4794 or back up Donna Montanaro 439-310-3838 or Paul Reza at 439-779-4423. They will make the decision to call a Code Orange.
   d. Close the clinic and take the names of everyone in the waiting room. Ask them to remain in the waiting room until further instructions are given.
   e. After additional details of the case are reviewed, decisions will be made with Toledo Lucas County Health Department (TLC) about transportation of the patient to UTMC ED.
   f. DO NOT Clean the room or any part of the clinic. Decisions on decontamination will be determined after the information on exposure is reviewed.

CODE ORANGE

- Upon notification of EVD patient, a Code Orange will be called
- Code orange procedures will be followed (w/Ebola additions)
- Triage personnel will put PPE (located in triage room) on themselves and the patient.
- Patient must remain in the triage room until relocation.
- Holding of patient takes place in Room #21 of ED for ~48 hours
- Long term holding will be on 6CD
SO WHO HAS BEEN TRAINED AND WHY?

- The ED staff nurse and doctors have been trained a number of times on PPE procedures in Simulation Center.
- ED residents and others have also been trained but will not care for a confirmed EVD patient.
- We have a core team of ED docs and nurses that will care for the patient in the short term in the ED.
- Attending faculty and nurses (mainly the ED) have volunteered to care for patients that may be held for an extended period on 6CD.
- Volunteers will continually be accepted and training will continue for this core group on a on-going basis.
- We have plans to extend our response if a more aggressive outbreak occurs in the region.
- Drills and simulations have been conducted and will continue to be performed to test our response capabilities.

CHANGES TO PPE BASED ON CDC AND OTHER GUIDANCE

- Addition of blue booties
  - These are placed on after Tyvek suit
  - Attach strap to prevent bootie from slipping down
- Addition of pull over hood
CHANGES TO N-95 KITS

- Addition of unattached hood
  - The Tyvek’s attached hood must now be rolled and tucked into suit
  - Unattached hood is placed over head and shoulders and tied in back
  - Yellow gown goes over top shroud of hood
  - When removing hood, grasps top of hood, pulling upward and away from face

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SEQUENCE FOR PUTTING ON PERSONAL PROTECTIVE EQUIPMENT (PPE)

HAIR TIE/NET and N-95
- Tie hair back into tight bun, use hair net if long hair
- Place N-95 straps behind head, one high/one low
- Fit flexible band to nose bridge
- Fit snug to face and below chin

TYVEK, BOOTIES, GLOVES, GOWN
- Step into white Tyvek, roll attached hood into suit, zip up Tyvek
- Put on booties, attach Velcro strap
- Put external hood over head and tie
- If needed, tape back/top of hood for better fit
- Put on pair of green long cuff gloves
- Push hole through cuff of Tyvek suit with thumb
- Put arms into yellow isolation gown
- Tuck at back of neck and waist ensuring complete coverage

FACE SHIELD
- Place face shield over face
- Pull off adhesive tabs at bottom of shield bib
- tilt head back, adhere bib to front of yellow gown to allow for free movement

GLOVES
- Put on pair of blue long cuff gloves over green gloves
- Pull glove cuff over top of yellow sleeve

Use an Isolation Buddy to help you dress with the proper PPE
- Check each other after each step to ensure complete coverage
OPTION OF PAPR GEAR

- The option of PAPR gear has been added
- It will be used with a blue outer gown
- It has a hood with built in face shield
- Used during prolonged periods in patient room
- N-95 PPE kits are still primary option when potential EVD patient presents as they are staged in triage
SEQUENCE FOR PUTTING ON PERSONAL PROTECTIVE EQUIPMENT (PPE) with PAPR

HAIR TIE/NET
• Tie hair into tight bun, use hair net if long hair

GLOVES and TYVEK
• Put on pair of green long cuff gloves
• Step into white Tyvek and proceed to pull up
• Zip up halfway in order to tuck hood in later
• Push hole through cuff of Tyvek suit, with thumb
• Put on booties, pull up all the way, attach strap

PAPR
• Turn PAPR on (hose will already be connected and flow tested by PPE Tech)
• Buckle PAPR around waist and slightly to side of body
• Put on Hood, tucking first layer under Tyvek
• Zip up Tyvek, pull outer shroud down around shoulders
• Connect hose to hood

Blue Gown and Gloves
• Put on Blue Gown, fasten at back of neck
• Tie inside waist and outer waist to ensure complete coverage
• Put on pair of blue long cuff gloves over green gloves
• Pull glove cuff over top of blue sleeve

Use an Isolation Buddy to help you dress with the proper PPE
* Check each other after each step to ensure complete coverage

SEQUENCE FOR REMOVING PERSONAL PROTECTIVE EQUIPMENT (PPE) with PAPR

OUTER GLOVES/BOOT STRAP
• Spray gloves with bleach, remove boot strap, spray gloves again
• Grasp outside of glove with opposite gloved hand; peel off
• Hold removed glove in gloved hand
• Slide fingers of ungloved hand under remaining glove at wrist
• Peel glove off over first glove
• Discard gloves in infectious waste bin, spray inner gloves with bleach

BLUE GOWN
• Spray gloves with bleach
• Use Isolation Buddy to untie gown straps
• Grab clean inside part of gown, pull away from body
• Roll up gown piece in infectious waste bin

PAPR
• Spray gloves with bleach
• Shut off PAPR, use Isolation Buddy to remove tube from hood
• Und buckle PAPR and set on Decontamination Mat

HOOD, TYVEK, and BOOTIES
• Spray gloves with bleach
• Grab hood by top, pull over head away from face and dispose of in infectious waste bin
• Undo, and step out of Tyvek (including booties) onto clean portion of floor
• Place in infectious waste bin

INNER GLOVES
• Spray inner gloves with bleach,
• Remove in same fashion as outer gloves
• Wash hands with soap and water
Room 1300 will be the hot zone for the patient.
Putting on PPE will occur in 1261.
Taking off PPE will occur in 1260, removing all PPE.
Crocs will be removed in 1262, and scrubs removed in 1261.

Patient movement starts in 1300.
Patient travels to patient elevators following red dotted line.

Movement of Patient from ed I300 to 6cd
Patient moves from elevator to 6190 or 6186 if multiple patients.

6190 and/or 6186 will be patient rooms.
Putting on PPE will occur in 6182.
Taking off PPE will occur on red half of 6183.
Crocs and scrubs will be removed in 6183D.