

EBOLA PREPAREDNESS FOR THE ED

UAB EBOLA PREPAREDNESS

- General Ebola Information
- UAB's Ebola Screening Procedures
- UAB's Ebola PPE
- UAB's Ebola Care Training
- UAB's Ebola Care Plan

EBOLA INFORMATION

Ebola Virus



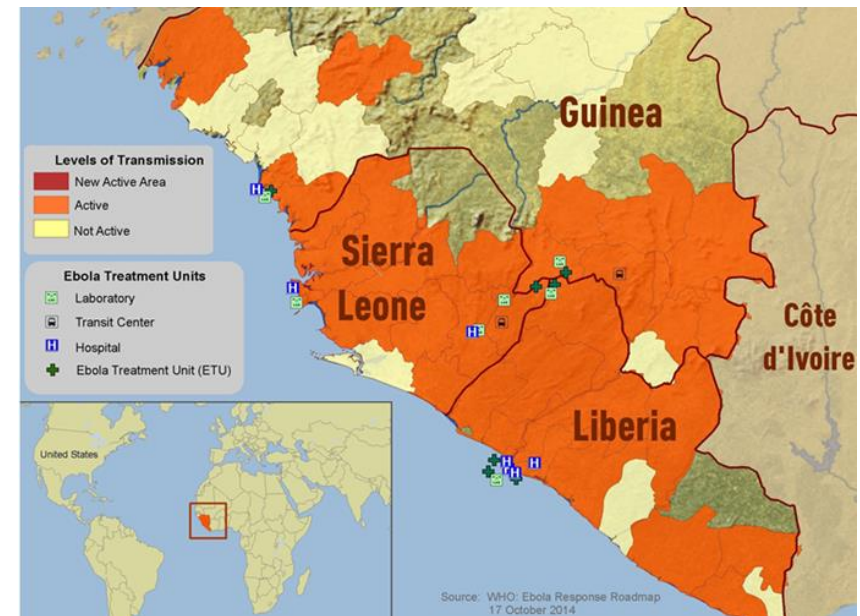
- One of the viral hemorrhagic fevers (Marburg virus is the other)
- Severe and often fatal disease
- Natural reservoir remains unknown

EBOLA SIGNS AND SYMPTOMS

- Incubation is usually 8-10 days after exposure (range 2-21 days)
- Severe headache
- Muscle pain
- Vomiting
- Diarrhea
- Abdominal pain
- Chest pain
- Fever
- Unexplained bleeding and bruising

LATEST INFORMATION ON OUTBREAK

- 2014 outbreak is the largest Ebola outbreak in history
- U.S. hospitals can safely manage a patient with EVD by following recommended isolation and infection control procedures
- Proper training of PPE use is key



STATE OF EBOLA AS OF 10/21/14

- WHO reports 4,963 confirmed, probable, or suspected cases with 2,453 deaths. Countries with active outbreaks are Guinea, Liberia, and Sierra Leone. A separate outbreak is occurring in the Democratic Republic of Congo.
- The U.S. currently has 1 reporter and 2 nurses being treated in Clinical Isolation Units (Maryland, Georgia, and Nebraska). A WHO physician was released from Emory on Sunday. The CIU in Montana does not have patients. A total of 166 contacts are being monitored in Dallas, and 153 contacts in Ohio.
- One UAB employee is self-monitoring and reporting to Employee Health on a daily basis due to travel. UAB has evaluated 12 patients since the outbreak began. All have been negative for Ebola. There were no additional patients presenting with sign, symptoms, or chief complaints of suspected Ebola since Friday.

EBOLA SCREENING

- UAB's EHR has Infectious Disease Risk Screening built into it.
- On this screen, you can see the two questions being asked:
 1. Have you traveled outside of the US in the last month?
 2. Have you had direct contact with anyone who has tested positive for the Ebola Virus?
- If the patient's answers produce a positive exposure screen for Ebola, then the EHR will prompt the healthcare worker to isolate the patient and notify the physician immediately.

The screenshot shows the 'Infectious Disease Risk Screening' form in an EHR system. The form is titled 'Infectious Disease Risk Screening' and is dated 10/17/2014. It is divided into two main sections: 'Post-Travel Screening' and 'Post-Exposure Screening'. The 'Post-Travel Screening' section includes a question about travel outside the US in the last month, with 'Yes' selected. It also includes checkboxes for areas traveled (Africa, Canada, Central America, China, Indonesia, Japan, Mexico, Middle East, Russia, South America, Western Europe, Other) and countries in Africa (Guinea, Liberia, Sierra Leone, Nigeria, Senegal, None of these). The 'Post-Exposure Screening' section includes a question about direct contact with anyone positive for Ebola virus, with 'No' selected. It also includes checkboxes for patient symptoms post-exposure (Fever greater than or equal to 100.4, Headache, Vomiting, Diarrhea, Muscle pain, Abdominal pain, Weakness, Unexplained hemorrhage, None of these) and positive post-exposure screening interventions (Isolate patient in private room and notify physician immediately). A blue message states: 'If patient has none of these symptoms, Infectious Disease Screening is completed and no further actions indicated.' A blue message at the bottom states: 'If No is selected, Infectious Disease Risk Screening is complete.'



YOUR RESPONSIBILITY

- Perform Travel Screen
- If positive screen
 - Give patient the closest available mask.
 - Isolate patient in room with door closed.
 - The attending physician and the assistant nurse manager should both be notified immediately.
 - The attending should don supplied PPE (gown, mask, gloves) to enter patient room* and get further history. *There should be no physical contact with the patient.
- Notify Ebola Pager, Dr. Thomas, and India and await further directions.
 - Dr. Camins pager: 7428, cell: 314-265-1750
 - India Alford pager: 7309, cell: 205-337-1468
 - Dr. Thomas pager: 5168, cell: 205-834-1403

EBOLA PPE

- Ebola care team members will have two levels of PPE.
 - One level for low-output Ebola patients
 - One higher level PPE for high-output Ebola patients
- Both types of PPE will provide full body coverage and protection, and meet the CDC's minimum recommendations.



Low-output
Ebola PPE

EBOLA DONNING/DOFFING CHECKLISTS

UAB INTERPROFESSIONAL SIMULATION
FOR INNOVATIVE CLINICAL PRACTICE
Knowledge that will change your world

Ebola PPE Checklist Donning PPE (Blue Impermeable Gown)

- Use restroom if needed
- Remove all jewelry, clothing, and undergarments
- Ensure that fingernails are trimmed, hair is pulled back and secured in a low ponytail or bun, remove facial hair
- Put on disposable undergarments and scrubs
- Put on disposable footwear
- Proceed to the appropriate clean zone and find your buddy
- Take and record vital signs (Heart Rate, Blood Pressure, and Temperature)
- Hydrate
- Wash hands with OR scrub and inspect for wounds, cuts, and scrapes
- Apply clear plastic boot covers
- Apply blue surgical mid-calf boot covers
- Place blue bouffant cap on head
- Put on N95 mask and check fit
- Put on hood
- Put on blue impermeable gown
- Place clear apron over blue gown
- Put on face shield
- Perform hand hygiene with an alcohol-based hand rub (ABHR) and let dry
- Apply inner gloves bringing the cuffs of the gown over the inner glove
- Apply outer gloves over the inner gloves ensuring that the gown cuffs are covered
- Inspect your buddy before entering the patient care area
- Sign log book and record time entering room
- Enter the patient care area

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UAB INTERPROFESSIONAL SIMULATION
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= steps for the doffing healthcare worker
 = steps for the doffing expert

Checklist for Doffing PPE for Low-Output Ebola Patient Care

- Doffing Expert (DE):** Lay out doffing pad, waste disposal bag, open disinfectant wipes container, position one chair on doffing pad, and obtain extra gloves. DE donned in complete PPE with doffing checklist.
- DE:** The doffing process is conducted under the supervision of a trained expert, who reads aloud each step of the procedure and confirms visually that the PPE has been removed properly. Prior to doffing PPE, the expert must remind healthcare workers to avoid reflexive actions that may put them at risk, such as touching their face. Post this instruction and repeat it verbally during doffing. Although the expert should minimize touching healthcare workers or their PPE during the doffing process, the expert may assist with removal of specific components of PPE as outlined below. **The expert disinfects the outer-gloved hands immediately after handling any healthcare worker PPE.**
- Ensure that you are in the appropriate decontamination zone & DE is present, donned in complete PPE with checklist.**
- Stand on the doffing pad.** Do not step off of the doffing pad until you have fully removed all PPE.
- Inspect the PPE to assess for visible contamination, cuts, or tears before starting to remove.** If any PPE is visibly contaminated, then disinfect using an *EPA-registered disinfectant wipe. *****If the doffing healthcare worker experienced contamination via cut, needle stick, mucus membrane exposure, or direct skin contact, proceed with the doffing, but keep the doffing healthcare worker in the doffing area upon completion. Dr. Camins and the attending should be notified immediately. DO NOT LEAVE THE DOFFING AREA UPON COMPLETION OF DOFFING IF THERE HAS BEEN CONTAMINATION.**
-
- Disinfect outer gloves:** Disinfect outer-gloved hands with an *EPA-registered disinfectant wipe.
- Remove clear plastic apron.** Pull apron off from the front chest area, closing eyes and holding your breath. The apron should tear apart on the back and come off in one fluid motion.
- Disinfect outer gloves:** Disinfect outer-gloved hands with an *EPA-registered disinfectant wipe.
- Sit Down in chair on doffing pad.**
- Remove boot covers:** Sit down in chair on doffing pad and ensure that the gown covers your knees. Pinch and pull to remove blue mid-calf boot covers.
- Stand up**
- Disinfect outer gloves:** Disinfect outer-gloved hands with an *EPA-registered disinfectant wipe.
- Remove outer gloves:** Remove and discard outer gloves taking care not to contaminate inner gloves during removal process. Step 1: Remove the first outer glove by pinching at the wrist and pulling up and away from the hand, thereby inverting the glove and exposing the uncontaminated inner surface. Step 2: Using the uncontaminated inner surface of the first removed glove, pinch the wrist of the other remaining outer glove and pull up and away to discard, dropping both gloves on the doffing pad.
- Disinfect inner gloves:** Disinfect inner-gloved hands with an *EPA-registered disinfectant wipe.
- Remove face shield:** Remove the full face shield by tilting the head slightly forward, grabbing the rear strap and pulling it over the head, gently allowing the face shield to fall forward and discard. Avoid touching the front surface of the face shield. Keep eyes closed tightly and hold your breath when doing this.
- Disinfect inner gloves:** Disinfect outer-gloved hands with an *EPA-registered disinfectant wipe.

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EBOLA CARE TRAINING

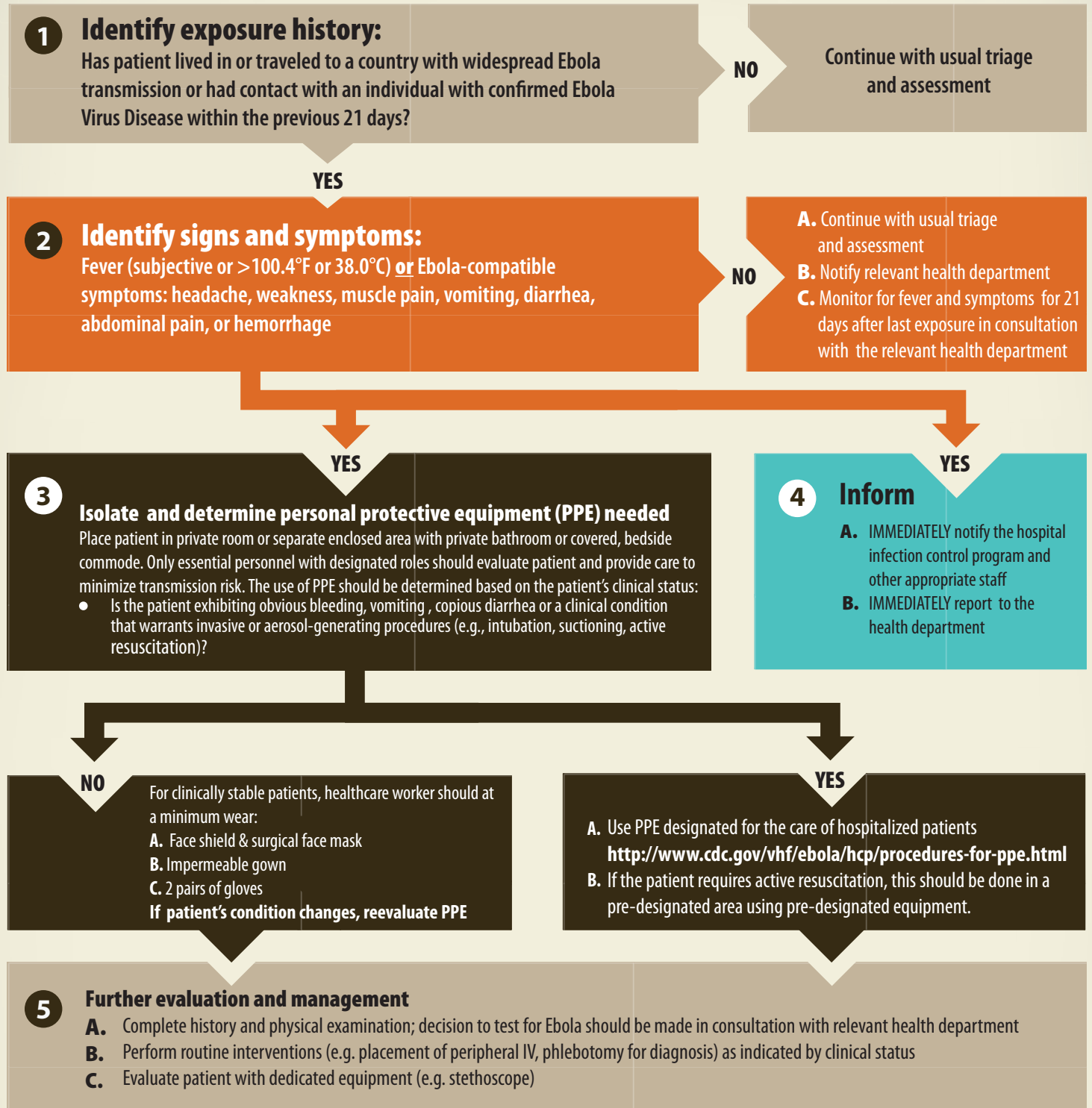
OIPS is providing training and sims in 5 areas:

1. Simulations for screening Ebola at various UAB sites
2. Train-the-Trainer Instructor Course for PPE Experts
3. PPE 101 for the Ebola Care Team
 - This also includes open lab time for additional PPE donning/doffing practice
4. Ebola Patient Care Course
 - This course will be in two parts:
 1. In-situ training in the ED
 2. General care on a hospital floor for non-ED Ebola Care Team members
5. OIPS is also on standby to provide Just-in-Time training, if needed.

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Identify, Isolate, Inform: Emergency Department Evaluation and Management of Patients with Possible Ebola Virus Disease



U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

Ebola PPE Checklist
Donning PPE (Blue Impermeable Gown)

- Use restroom if needed
- Remove all jewelry, clothing, and undergarments
- Ensure that fingernails are trimmed, hair is pulled back and secured in a low ponytail or bun, remove facial hair
- Put on disposable undergarments and scrubs
- Put on disposable footwear
- Proceed to the appropriate clean zone and find your buddy
- Take and record vital signs (Heart Rate, Blood Pressure, and Temperature)
- Hydrate
- Wash hands with OR scrub and inspect for wounds, cuts, and scrapes
- Apply clear plastic boot covers
- Apply blue surgical mid-calf boot covers
- Place blue bouffant cap on head
- Put on N95 mask and check fit
- Put on hood
- Put on blue impermeable gown
- Place clear apron over blue gown
- Put on face shield
- Perform hand hygiene with an alcohol-based hand rub (ABHR) and let dry
- Apply inner gloves bringing the cuffs of the gown over the inner glove
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Checklist for Doffing PPE for Low-Output Ebola Patient Care

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- Ensure that you are in the appropriate decontamination zone & DE is present, donned in complete PPE with checklist.**
- Stand on the doffing pad.** Do not step off of the doffing pad until you have fully removed all PPE.
- Inspect the PPE** to assess for visible contamination, cuts, or tears before starting to remove. If any PPE is visibly contaminated, then disinfect using an *EPA-registered disinfectant wipe. ***If the doffing healthcare worker experienced contamination via cut, needle stick, mucus membrane exposure, or direct skin contact, proceed with the doffing, but keep the doffing healthcare worker in the doffing area upon completion. Dr. Camins and the attending should be notified immediately. **DO NOT LEAVE THE DOFFING AREA UPON COMPLETION OF DOFFING IF THERE HAS BEEN CONTAMINATION.**
- Disinfect outer gloves:** Disinfect outer-gloved hands with an *EPA-registered disinfectant wipe.
- Remove clear plastic apron.** Pull apron off from the front chest area, closing eyes and holding your breath. The apron should tear apart on the back and come off in one fluid motion.
- Disinfect outer gloves:** Disinfect outer-gloved hands with an *EPA-registered disinfectant wipe.
- Sit Down in chair on doffing pad.**
- Remove boot covers:** Sit down in chair on doffing pad and ensure that the gown covers your knees. Pinch and pull to remove blue mid-calf boot covers.
- Stand up**
- Disinfect outer gloves:** Disinfect outer-gloved hands with an *EPA-registered disinfectant wipe.
- Remove outer gloves:** Remove and discard outer gloves taking care not to contaminate inner gloves during removal process. Step 1: Remove the first outer glove by pinching at the wrist and pulling up and away from the hand, thereby inverting the glove and exposing the uncontaminated inner surface. Step 2: Using the uncontaminated inner surface of the first removed glove, pinch the wrist of the other remaining outer glove and pull up and away to discard, dropping both gloves on the doffing pad.
- Disinfect inner gloves:** Disinfect inner-gloved hands with an *EPA-registered disinfectant wipe.
- Remove face shield:** Remove the full face shield by tilting the head slightly forward, grabbing the rear strap and pulling it over the head, gently allowing the face shield to fall forward and discard. Avoid touching the front surface of the face shield. Keep eyes closed tightly and hold your breath when doing this.
- Disinfect inner gloves:** Disinfect outer-gloved hands with an *EPA-registered disinfectant wipe.
- Remove hood:** Reach hands behind head and pull hood up and over the front of the head towards the face. Keep eyes closed tightly and hold your breath when doing this. **The DE may assist with the hood removal as needed.**

- Disinfect inner gloves:** Disinfect outer-gloved hands with an *EPA-registered disinfectant wipe.
- Remove Gown:** Depending on gown design and location of fasteners, the healthcare worker can either untie fasteners, **receive assistance by the PPE expert to unfasten the gown (if needed)**, or gently break fasteners. Avoid contact of scrubs or disposable garments with outer surface of gown during removal. Pull gown away from body, rolling inside out and touching only the inside of the gown.
- Disinfect inner gloves:** Disinfect outer-gloved hands with an *EPA-registered disinfectant wipe.
- Hold on to chair**
- Remove clear plastic boot covers:** As you remove one plastic boot cover, place that foot on the clean area floor, off of the doffing pad. Then, slowly but purposefully remove the other plastic boot cover, place that foot on the clean area floor, completely off of the doffing pad.
- Disinfect inner gloves:** Disinfect outer-gloved hands with an *EPA-registered disinfectant wipe.
- Remove inner gloves:** Remove and drop inner gloves onto doffing pad without touching your skin. Step 1: Remove the inner glove by pinching at the wrist and pulling up and away from the hand, thereby inverting the glove and exposing the uncontaminated inner surface. Step 2: Using the uncontaminated inner surface of the first removed glove, pinch the wrist of the other remaining inner glove and pull up and away to discard, dropping both gloves on the doffing pad.
- Perform Hand Hygiene:** Perform hand hygiene with an alcohol-based hand rub (ABHR) and let dry.
- Put on new pair of gloves:** Hold your hand out, palms up, and the **expert will drop a clean pair of gloves into your hands.**
- Remove Bouffant Cap and N95 respirator:** Remove the bouffant cap and N95 respirator by tilting the head slightly forward, grasping the back of the bouffant cap, and remove without touching the front of the N95 respirator. Keep eyes closed tightly and hold your breath when doing this. Drop bouffant cap and N95 respirator onto doffing pad.
- Disinfect inner gloves:** Disinfect outer-gloved hands with an *EPA-registered disinfectant wipe.
- Remove inner gloves:** Remove and drop inner gloves onto doffing pad without touching your skin.
- Perform Hand Hygiene:** Perform hand hygiene with an alcohol-based hand rub (ABHR) and let dry.
- Expert Final Inspection:** Perform a final inspection of healthcare worker for any indication of contamination of the surgical scrubs or disposable garments. If contamination is identified, immediately inform infection prevention team or occupational safety and health coordinator or their designee before exiting PPE removal area.
- Exit doffing area**
- Sign log book and record time**
- Shower:** Showers are recommended at each shift's end for healthcare workers performing high risk patient care (e.g., exposed to large quantities of blood, body fluids, or excreta). Showers are also suggested for healthcare workers spending extended periods of time in the Ebola patient room.
- Hydrate** with water or non-caffeinated sports drinks
- Protocol Evaluation/Medical Assessment:** Either the infection prevention team or occupational health safety and health coordinator or their designee on the unit at the time should meet with the healthcare worker to review the patient care activities performed to identify any concerns about care protocols and to record healthcare worker's level of fatigue and vital signs.