

Ebola Virus DiseaseTriage Precautions in the Emergency Department

The Centers for Disease Control and Prevention (CDC) has developed an excellent checklist (**bit.ly/triage_ checklist**) and algorithm (**bit.ly/CDC_algorithm**) for identifying a suspected Ebola Virus Disease (EVD) case. The challenge becomes putting the practices in place in overcrowded and understaffed emergency departments and outpatient clinics.

To protect nurses, other healthcare workers and patients, it is essential to identify and isolate patients with Ebola as soon as possible. To accomplish this goal, every hospital and healthcare facility must have a comprehensive Ebola response plan that lays out its procedures from the time a patient enters the emergency room. The plan should lay out in great detail how its emergency department is going to assess patients and how it is going to address additional staffing demands, augmented environmental services, waste management, protective equipment supplies and the physical layout that will be put in place to protect staff and patients.

In order for the comprehensive plan to work, hands-on training as well as drills and practice sessions must be provided for all designated staff throughout the facility, including emergency department nurses, environmental services personnel and security guards.

The CDC and state and local public health authorities are beginning to designate hospital centers that will care for Ebola patients, taking some of the pressure off of hospitals not equipped to maintain high levels of biocontainment isolation rooms and protocols. However, healthcare workers in hospital emergency rooms will in all likelihood still be the first responders in identifying Ebola patients and preparing for their transport.

If your hospital has not begun to develop or implement a comprehensive plan for your emergency department, please contact your union representative. The following critical issues should be covered in the plan:

Emergency department layout

A high-demand emergency department must have enough signage and an adequate physical layout to facilitate the rapid assessment of patients with fevers. If possible, the emergency department should have an area outside the facility to triage suspected patients before they enter the facility. Several hospitals have made provisions for these areas to be set up for other emergency events, such as pandemic influenza. Examples of these areas include tents or anterooms set up outside the emergency department entrance.

Signage can play a part in directing patients who feel

feverish to immediately notify a screener or report to a special area to expedite their assessment. To be effective, the signage must be highly graphic and written in languages commonly spoken in the community.

In the outside area, screeners should use no-touch infrared thermometers to take the temperatures of all patients entering the facility. Screeners should then direct patients with fevers to a separate, specially designated area inside the emergency department for further assessment. Screeners must have adequate personal protective equipment (PPE) as they process visitors (for more information on PPE, see **bit.ly/PPE_procedures**).

American Federation of Teachers, AFL-CIO 555 New Jersey Ave. N.W. • Washington, DC 20001 • T: 202-879-4400 • www.aft.org If creating an outside area to triage suspected patients is not realistic, the healthcare facility will need to rely even more on signage to encourage patients with fevers to self-identify.

Inside the emergency room, reception and waiting areas should be set up to separate non-symptomatic individuals from those with fevers and symptoms. Ideally, a door (or at least drapes or curtains) should divide the areas. Signage can play an important role in reminding patients and visitors of the different sections.

The Association for Professionals in Infection Control and Epidemiology recommends separating the "well" and "sick" areas by at least six feet, whenever possible (see **bit.ly/ACC_prevention**). The chairs in the waiting room should be spaced three to six feet apart.

The receptionists should be able to direct patients with fever, diarrhea, vomiting and other symptoms to an exam room without delay.

Other ways to help reduce exposure in the waiting room include:

- Equipment and materials should be available
 to handle any body fluid spills or mishaps in
 the emergency department. There may need
 to be more hand sanitizers and tissues on
 hand. Patients should be offered gowns and
 other personal protective equipment to control
 exposure to staff, visitors and other patients.
- Environmental service staff should have additional training and PPE to safely clean up spills and discard contaminated waste material. All training and procedures should be in strict accordance with the Occupational Safety and Health Administration (OSHA) bloodborne pathogen standard. Some facilities also may need to increase the frequency of cleaning and disinfecting waiting rooms and patient exam rooms.
- All CDC recommendations should be in place to ensure any contaminated waste and PPE are completely contained and handled properly. Managing contaminated waste has been especially challenging during this crisis—the sheer scale of waste can easily overwhelm an emergency room.

Personal protective equipment

EVD is highly contagious. Extraordinary measures are recommended to prevent any skin or mucous membrane contact with the blood and body fluid of a potentially infectious patient. The same approach should be taken with potential exposure to the unpredictable aerosolization of blood and body fluid. All nurses and other staff managing suspected cases need respiratory protection beyond surgical masks.

Gloves should be in ample supply so that nurses and others can use a new pair of gloves when assessing a patient. Security guards, receptionists and admissions personnel should be trained to use gloves properly. Gloves need not be worn to handle paperwork unless it has been contaminated by blood or body fluid.

A nurse performing triage will need a new pair of gloves for each new patient. If a patient is highly symptomatic, the nurse must wear a fluid resistant gown, shoe coverings and an N-95 respirator. If a patient is symptomatic with diarrhea and vomiting, the nurse must adhere to the PPE recommendations for direct care providers. Gowns and respirators should be immediately disposed of if they become contaminated during an assessment.

Before entering a patient's examination room, all nurses and other staff should put on their:

- Nitrile gloves (or equivalent) in the appropriate size;
- Tyvek suits and fluid-resistant gowns;
- Disposable shoe covers;
- Indirectly vented goggles and/or face shields to protect the face from splashes; and
- Air-purifying respirators (N-95 respirators at a minimum).

All healthcare workers having direct contact with a suspected Ebola patient will need thorough hands-on training on donning and doffing this equipment (for an example of the proper technique for putting on the equipment, see bit.ly/hospital_practice). Among other things, every emergency department should have in place:

 A designated anteroom for putting on and taking off the equipment. Those areas should be equipped with a secure waste disposal system, hand-washing stations and ample disinfectants.

- "Buddy systems" so that workers can observe each other putting on the equipment to ensure that all exposed skin is covered.
- Double-gloving techniques.
- Posted instructions/illustrations of the correct order for donning PPE, as follows:
- ° Disposable shoe covers;
- ° Tyvek suit;
- Head covering or hood that will ensure the neck area is covered;
- ° Fluid-resistant or impermeable gown;
- Gloves, which should be tucked in or taped to prevent any leakage (use double gloves if the patient is highly symptomatic);
- N-95 respirator (all healthcare workers should be fit tested as required by the OSHA respiratory protection standard); and
- ° Vented goggles (goggle straps should be put under the head covering or hood to prevent contamination) or face shield.
- Posted instructions/illustrations of the correct procedure and order for doffing PPE, as follows:
- ° Spray or wipe prescribed disinfectants on the gown, gloves, shoe coverings and face shield before removing;
- Remove gloves and wash hands with a disinfectant before removing other PPE;
- Put on new gloves before continuing the removal process;
- Carefully remove the gown, Tyvek suit, goggles, face shield and head covering; and
- ° Remove the N-95 respirator.

Lined receptacles should be at hand for the disposal of all contaminated gear. Any reusable equipment, such as goggles and shields, should be put in a disinfectant solution before being cleaned. Also, after removing all PPE, healthcare workers should perform standard hand hygiene. If exposed skin has been accidentally contaminated, workers should have a facility to shower, and the exposure should be immediately reported to Employee Health Services.

OSHA bloodborne pathogen standard

All emergency departments should be in strict compliance with the OSHA bloodborne pathogen standard. OSHA mandates that healthcare facilities have a comprehensive written plan. Hospitals must:

- Train potentially exposed staff on the plan and preventive strategies to avoid exposure to blood and body fluid;
- Provide all necessary personal protective equipment;
- Investigate all worker exposures to blood and body fluid as well as needlestick injuries and provide medical follow-up and counseling; and
- Employ engineering controls and practices to reduce worker exposure to blood and body fluid. For instance, hospitals should have needles and sharps with safety devices, along with containers for their proper disposal.

All emergency department staff, including security, reception and environmental services personnel, should have expanded training on the standard and procedures.

Worker-exposure reporting and support

Healthcare workers are understandably anxious about the risk of exposure to EVD. Hospitals should be diligent in actively encouraging workers to report any exposure to blood and body fluid, and should provide the emotional and social support any exposed worker may need. Hospitals should also provide administrative pay and benefits for any worker that is quarantined or put under preventive isolation.

Next steps

While most hospitals probably will not be caring for Ebola patients, many will be on the frontline to quickly isolate suspected cases, provide initial treatment and handle blood samples. There must be clear coordination with local and state public health departments on procedures for further assessment. Suspected patients will have to be tested for Ebola. Blood samples may have to be handled by laboratory staff to ship to state health department and/or CDC laboratories. Laboratory personnel will have to follow an expanded protocol for the safe handling of those samples.

Before a possible Ebola case is confirmed, hospitals will have to maintain the highest level of safety and follow CDC isolation and EVD care guidance. Hospital Ebola plans must include details of how and when to transfer and transport confirmed patients to designated centers of care. For the foreseeable future, emergency departments must be fully prepared to contain EVD, which requires having functioning EVD protocols and providing hands-on training. Genuine worker involvement is essential for ultimate success.