Ebola Response Guidance for Emergency Medical Services

(Also See Preparedness Guidance)

Interim Guidelines November 3, 2014

Identify Patients, Protect Yourselves, Respond Safely

The NH Division of Public Health Services (DPHS) and NH Bureau of EMS recognize the critical role of NH EMS Providers and Services for response to a possible Ebola virus disease (EVD) patient. Because federal guidance is evolving, this document should be considered as interim NH guidance. One aspect that will never change, however, is that our providers and healthcare workers must be protected. Your first priority must be to ensure that you and your team are properly equipped and trained.

Personal Protective Equipment (PPE) Recommendations

EMS providers coming into contact with a suspect EVD patient should wear, at a minimum, the following disposable PPE to ensure no skin is showing:

- Fluid resistant or impermeable gown
- Two pairs of nitrile gloves with extended cuffs
- Fluid-resistant or impermeable boot covers that extend to mid-calf (fluid-resistant or impermeable shoe covers can be used instead if used in combination with a suit with integrated socks)
- Surgical hood that covers the head and extends to shoulders
- Full face shield (goggles are no longer recommended)
- NIOSH-certified fit-tested N95 mask (surgical mask is no longer recommended)

Additional PPE can also include:

- Impermeable suit with shoe covers. The suit should NOT include a hood. If a suit with hood is used, the hood should be rolled up and stuffed inside the collar to minimize steps while doffing the PPE.
- NIOSH-certified Powered Air Purifying Respirator (PAPR) with a full face shield and headpiece. If a reusable helmet or headpiece is used, the PAPR must be covered with an additional disposable surgical hood that extends to the shoulders and is compatible with the selected PAPR.
- A fluid-resistant or impermeable apron that will protect providers from gross contamination and allow for easier contamination removal.

Initial Screening and Suspect Case Identification

- Upon arrival on scene, the EMS provider should assess each patient for a travel history to Guinea, Liberia, or Sierra Leone and symptoms of EVD.
- Remain at least 3 feet away to acquire the travel history before any physical contact with the patient.
- If patient meets criteria for suspect EVD, the EMS provider should leave the physical location of the patient until he/she can put on the appropriate PPE (see above).
- Instruct the patient to isolate himself/herself from others on scene (including family).
- Proceed carefully to ensure all personnel safety precautions and appropriate notifications are made.
    - Consult with Medical Control regarding the patient.
    - Notify NH DPHS at 603-271-4496 (after hours 603-271-5300).

- Don appropriate PPE. If available, change into scrubs before donning PPE in order to prevent any disposal of personal clothing or uniforms.
- If recommended PPE is not available on scene:
  - First responders should NOT make contact with the patient regardless of the clinical situation.
  - Wait for arrival of ambulance and EMS personnel with appropriate PPE. If jurisdictional ambulance service does not have appropriate PPE, request mutual aid.
  - If mutual aid agency similarly lacks appropriate PPE, request PPE from the hospital or other resource and arrange for supplies to be transported to the scene.
  - Further guidance and assistance can be given by medical control and NH DPHS.
- Limit contact with the patient and the patient's environment to essential providers only. Only those providers who will be transporting the patient to the hospital should have contact with the patient, and any other first responders on scene should avoid all contact. However, if the patient's condition necessitates care prior to ambulance arrival, AND the first responders have appropriate PPE, the minimum number of first responders should make contact with the patient.
- All first responders who don PPE and make contact with the patient on scene will need to go with the ambulance to the receiving hospital so that PPE can be properly doffed and disposed of. PPE should NOT be doffed in the field (see below for further guidance on doffing PPE).
- Document all personnel who are on scene or involved in the transport of the patient. In the event the patient is confirmed to have EVD, DPHS will monitor all personnel who were on scene for 21 days.

Medical Care

- Medical equipment used on EVD patients should be disposable whenever possible.
- Avoid any use of needles and other sharps. IVs should not be started unless the patient is in emergent need of volume replacement or IV medications and this care cannot be delayed until arrival at the ED.
- Avoid aerosol-generating procedures such as nebulized medications, CPAP, intubation, and suctioning.
- Avoid pre-hospital resuscitation procedures such as endotracheal intubation, open suctioning of airways, and cardiopulmonary resuscitation.
  - If a suspected EVD patient is in cardiac arrest, follow established protocols for initiation and termination of resuscitation efforts in the field (3.2A Cardiac Arrest and 8.15 Special Resuscitation Situations). EMS providers should consider not initiating resuscitation efforts, as the physical environment may not be safe and successful resuscitation is unlikely.
- EMS providers should contact medical control before transporting a suspected EVD infected patient to the hospital.

Transport

- Transport should be performed in an ambulance with appropriate preparations for suspect EVD patient.
  - Limit equipment exposure to an EVD patient. Make a plan to remove any equipment that will not be used during transport and is in the immediate patient care area such as cardiac monitors. Coordinate with the Bureau of EMS.
  - While not necessary, some EMS agencies may elect to perform additional ambulance precautions such as lining the patient compartment with plastic sheeting.
- The transporting EMS unit must be adequately staffed (recommended staffing is one driver and two patient care providers). If not, consider mutual aid.
- Transport in an ambulance with an isolated driver compartment is preferred. If the drive compartment can be isolated from the patient compartment, the ambulance driver should NOT have patient contact and should NOT don PPE. No special decontamination of the driver compartment is necessary.
  - If an ambulance with isolated driver compartment is not available, plastic sheeting can be used to separate the driver compartment from the rest of the ambulance.
- Place a surgical mask on the patient during transport.
- Transport patient to a local hospital per normal EMS protocol. Notify NH DPHS prior to transport.

- At receiving hospital, patient care should be transferred to hospital personnel with appropriate PPE preferably in ambulance bay/ambulance receiving area to limit EMS personnel from waking through the hospital in potentially contaminated PPE.

Decontamination

- Following transport of a suspect or confirmed EVD patient, appropriate environmental cleaning of the ambulance and medical equipment is critical.
- Decontamination of the ambulance and doffing of PPE should occur in a controlled environment at the receiving hospital in accordance with CDC guidance and hospital protocol.
- Personnel performing decontamination must wear appropriate EVD PPE as described above.
- All linens and non-fluid-impermeable pillows or mattresses, medical waste and any other materials that secretions from the suspect patient may have contaminated should be placed in leak-proof containment and discarded at the destination hospital according to the hospital's protocols for managing waste from suspect EVD patients.
- Standard environmental cleaning with U.S. Environmental Protection Agency (EPA)-registered hospital approved disinfectant is effective for non-critical patient care equipment and environmental surfaces. The U.S. EPA-registered hospital disinfectant should have a label claim for a non-enveloped virus (e.g., norovirus, rotavirus, adenovirus, poliovirus) and be used in accordance with the manufacturer's instructions.
- All non-disposable medical equipment used for patient care should be cleaned and disinfected according to manufacturer's and EMS unit policies.
- Patient-care surfaces (including stretchers, railings, medical equipment control panels, and adjacent flooring, walls and work surfaces) are likely to become contaminated and should be cleaned and disinfected after transport.
- A blood spill or spill of other body fluid or substance (e.g., feces or vomit) should be managed through removal of bulk spill matter, cleaning the site, and then disinfecting the site. For large spills, a chemical disinfectant with sufficient potency is needed to overcome the tendency of proteins in blood and other body substances to neutralize the disinfectant's active ingredient.
- PPE should be doffed using a second trained observer to guide the person doffing the PPE through specific removal and decontamination steps per CDC guidance:
  - Written guidance: http://www.cdc.gov/vhf/ebola/hcp/procedures-for-ppe.html
  - Video demonstration: http://www.medscape.com/viewarticle/833907
- The trained observer and assistant should also wear the following minimum PPE to assist with removal of specific components of PPE:
  - Fluid-resistant or impermeable gown
  - full face shield
  - two pairs of nitrile gloves with extended cuffs
  - fluid-resistant or impermeable shoe covers
- Once PPE has been doffed, EMS personnel should shower and change garments at the hospital. All removed uniforms or garments should be laundered.

PPE Breaches

If a break in PPE occurs during patient care, decontamination, or PPE removal, the provider should stop working and immediately wash the affected skin surfaces with soap and water. Mucous membranes (e.g., conjunctiva) should be irrigated with copious amounts of water or eyewash solution.

- Persons with percutaneous exposures to blood or body fluids (e.g. needlestick) should immediately contact occupational health and his or her supervisor for assessment and access to postexposure management services for all appropriate pathogens (e.g., HIV, Hepatitis C, etc.).
- An asymptomatic healthcare provider who had an exposure should receive medical evaluation and follow-up care including symptom monitoring for 21 days. Any potential PPE or infection control breach should be reported to NH DPHS at (603) 271-4496 (after hours 603-271-5300).