

Ebola Preparedness for Emergency Medical Services

(Also See Response Guidance)

Interim Guidelines updated January 9, 2015 (changes/new info in **RED**)

Identify Patients, Protect Yourself, 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. Taking steps now to prepare for a suspect EVD patient will allow you to provide needed care safely.

Key Actions for EMS to *take now* (see below for important details):

- Review and update, if needed, your unit's infection control program/plan including identifying local and regional resources that can assist you.
- Become expert in appropriate Personal Protective Equipment (PPE) for a patient suspected or confirmed to have EVD. Refresh your training, review the equipment, and practice donning and doffing using your PPE, especially how to remove potentially infected equipment without infecting yourself or others.
- Review equipment and vehicle decontamination procedures.
- Review screening questions for possible Ebola patients and post screening guidance in your station and vehicles for frequent review.
- Fit test all EMS personnel for N95 masks.
- Confirm that you have an adequate supply of the necessary PPE to fully cover all areas of exposed skin, which includes at minimum:
 - Nitrile gloves with extended cuffs, disposable fluid-resistant or impermeable gowns or coveralls, disposable fluid-resistant or impermeable boot or shoe covers, and N95 masks with disposable surgical hood that extends to shoulders and disposable full face shield, or Powered Air Purifying Respirator (PAPR).
- Stock on the ambulance, or make plans to rapidly acquire, impermeable suits with head and shoe coverings for use with patients who are not cooperative or whose body fluids are not contained.
- Review the medical care guidance for performing certain procedures on suspect Ebola patients (see “NH Ebola Response Guidance for EMS” document).
- Remember to use HAZMAT concepts of operations and decontamination.
 - Practice using equipment and partner with other organizations such as Mutual Aid, Medical Resource Hospital and Public Health Region.

Screening and Suspect Case Identification

- 911 Emerging Infectious Disease Surveillance Tool
 - NH 911 is currently screening for potential EVD patients. This process includes travel history and symptoms consistent with EVD.
 - Dispatch centers will be notified if a caller has a positive EVD screening tool
- To support early identification, EMS providers should:
 - Review the signs and symptoms of EVD, which include fever, headache, muscle pain, vomiting, diarrhea, abdominal pain, or unexplained hemorrhage.
 - Ensure that all patients with symptoms consistent with EVD are asked about travel to Liberia, Sierra Leone, and Guinea **and Mali** within the 21 days before illness onset.
 - Post signage in EMS unit stations and ambulances to remind EMS providers of criteria for suspecting EVD. Screening poster for EMS available at:
<http://www.dhhs.nh.gov/dphs/cdcs/ebola/documents/evdscreening-ems.pdf>
- Review NH DPHS clinical guidance for healthcare providers available at:
<http://www.dhhs.nh.gov/dphs/cdcs/alerts/documents/ebola-in-usa.pdf>
- Review CDC recommendations for EMS providers at:
<http://www.cdc.gov/vhf/ebola/hcp/interim-guidance-emergency-medical-services-systems-911-public-safety-answering-points-management-patients-known-suspected-united-states.html>
- If a suspect case is identified, EMS providers should follow the EMS Response Guidance.

PPE Preparedness

The following activities are recommended for EMS units to prepare for the possible use of these PPE recommendations.

- Create EVD PPE "go kits". This EVD PPE kit should contain various sizes of the different PPE components to ensure adequate fit for varying EMS provider sizes, and be located on the ambulance or other EMS response vehicle. EMS units are encouraged to discuss PPE needs with Medical Resource Hospitals. The kit should contain, at minimum, the following types of disposable PPE:
 - Nitrile gloves with extended cuffs
 - Gowns (fluid resistant or impermeable)
 - Full face shields (goggles are no longer recommended)
 - NIOSH-certified fit-tested N95 masks or NIOSH-certified Powered Air Purifying Respirators (surgical face masks are no longer recommended)
 - Surgical hood that extends to shoulders
 - Boot or shoe coverings (fluid resistant or impermeable)
 - Impermeable suit (in stock or rapid access to through local resources)
 - Healthcare personnel log to track all personnel who are on scene or involved in the transport of the patient. A log for this purpose is available at:
<http://www.dhhs.nh.gov/dphs/cdcs/ebola/documents/emstracking.pdf>
- Provide refresher PPE training now to all EMS providers who may come into contact with a suspect EVD patient. This training should ensure proficiency in selection, donning, and doffing of PPE.
 - Organizations should incorporate actual practice of these techniques in the training program, preferably with the chosen PPE of that unit.

- EMS units are encouraged to partner with other EMS organizations and their Medical Resource Hospitals to provide this training to staff.
 - Training should be based on CDC PPE guidance available at: <http://www.cdc.gov/vhf/ebola/hcp/procedures-for-ppe.html>
 - A CDC video demonstrating proper PPE donning and doffing is available at: <http://www.medscape.com/viewarticle/833907>
- Institute proficiency testing for proper donning and doffing.
- Best practices dictate implementing a “buddy system” that identifies “doffing partners” whereby co-workers observe and assist each other while donning and doffing PPE to make sure all procedures are correctly executed.
- DPHS will assist your organization in the unlikely event of a confirmed EVD patient to instruct EMS and other first responder contacts to restrict travel, and monitor twice a day for fever, headache, joint and muscle aches, weakness, fatigue, diarrhea, vomiting, stomach pain, lack of appetite, or bleeding and report any issues to occupational/employee health.

PPE Availability

EMS units should rely on their own supply of PPE or make arrangements to acquire or access the appropriate PPE. If the EMS unit does not have appropriate PPE or N95 fit testing capabilities, the EMS unit should pursue support. The following resources may be able to assist (not all resources listed will have extra equipment):

- The EMS unit's Medical Resource Hospital.
- Other EMS units in their area. Mutual aid may be required to care for a suspect Ebola patient if the primary jurisdiction does not have the appropriate PPE to safely care for the patient.
- The Public Health Region. Public Health Region contact information is available at: <http://nhphn.org/>
- Commercial supplier
- Hazmat teams

Environmental Cleaning

Following transport of a suspect or confirmed EVD patient, appropriate environmental cleaning of the ambulance and medical equipment is critical.

- EMS units should develop a plan for decontaminating the ambulance after transporting a suspect or confirmed EVD patient. This plan should include:
 - Identification of a decontamination location distant from persons and coordinated with each Medical Resource Hospital.
 - Coordination with local HAZMAT teams and hospital infection control personnel as subject matter experts on decontamination issues.
 - 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.

Additional Resources

NH Division of Public Health Services: 603-271-4496 (afterhours 603-271-5300)

www.dhhs.state.nh.gov

CDC recommendations for EMS providers

<http://www.cdc.gov/vhf/ebola/hcp/interim-guidance-emergency-medical-services-systems-911-public-safety-answering-points-management-patients-known-suspected-united-states.html>

CDC Healthcare Provider Guidance

<http://www.cdc.gov/vhf/ebola/hcp/patient-management-us-hospitals.html>

CDC PPE Guidance

<http://www.cdc.gov/vhf/ebola/hcp/procedures-for-ppe.html>

CDC video demonstrating proper PPE donning and doffing

<http://www.medscape.com/viewarticle/833907>

CDC Guidance for Environmental Infection Control

<http://www.cdc.gov/vhf/ebola/hcp/environmental-infection-control-in-hospitals.html>

Selected EPA-registered Disinfectants

<http://www.epa.gov/oppad001/chemregindex.htm>