Detailed Emergency Medical Services (EMS) Checklist for Ebola Preparedness

The U.S. Department of Health and Human Services (DHHS) Centers for Disease Control and Prevention (CDC) and Office of the Assistant Secretary for Preparedness and Response (ASPR), in addition to other federal, state, and local partners, aim to increase understanding of Ebola and encourage U.S.-based EMS agencies and systems to prepare for managing patients with Ebola and other infectious diseases. Every EMS agency and system, including those that provide non-emergency and/or inter-facility transport, should ensure that their personnel can detect a person under investigation (PUI) for Ebola, protect themselves so they can safely care for the patient, and respond in a coordinated fashion**.** Many of the signs and symptoms of Ebola are non-specific and similar to those of other common infectious diseases such as malaria, which is commonly seen in West Africa. Transmission of Ebola can be prevented by using appropriate infection control measures.

This checklist is intended to enhance collective preparedness and response by highlighting key areas for EMS personnel to review in preparation for encountering and providing medical care to a person with Ebola. The checklist provides practical and specific suggestions to ensure the agency is able to help its personnel ***detect*** possible Ebola cases, ***protect*** **those** personnel, and ***respond*** appropriately.

Now is the time to prepare, as it is possible that individuals infected with Ebola virus in West Africa may travel to the U.S., develop signs or symptoms of Ebola , and seek medical care from EMS personnel.

EMS agencies, in conjunction with their medical directors, should review infection control policies and procedures and incorporate plans for administrative, environmental, and communication measures.

The checklist format is not intended to set forth mandatory requirements or establish national standards. It is a list of activities that can help each agency prepare. Each agency is different and should adapt this document to meet its specific needs. In this checklist, EMS personnel refers to all persons, paid and volunteer who provide pre-hospital emergency medical services and have the potential for direct contact exposure (through broken skin or mucous membranes) with an Ebola patient's blood or body fluids, contaminated medical supplies and equipment, or contaminated environmental surfaces.

This detailed checklist for EMS is part of a suite of HHS checklists. This guidance is only for EMS agencies and systems; the CDC's Interim guidance for EMS includes information for individual providers and for 9-1-1 Public Safety Answering Points.

CDC is available 24/7 for consultation by calling the CDC Emergency Operations Center (EOC) at 770-488-7100 or via email at eocreport@cdc.gov.

C=Completed; IP=In Progress; NS=Not Started

PREPARE TO DETECT	C	IP	NS
Train all EMS personnel on how to identify signs and symptoms of Ebola infections and to avoid risk of exposure.			
Review CDC Ebola case definition for guidance on who meets the criteria for a PUI for Ebola.			
Ensure EMS personnel are aware of current guidance: Interim Guidance Emergency Medical Services Systems.			
Review patient assessment and management procedures and ensure they include screening criteria (e.g. relevant questions: travel within 21 days from affected West African country, exposure to case) for use by EMS personnel to ask individuals during the triage process for patients presenting with compatible symptoms.			
Post screening criteria in conspicuous locations in EMS units, at EMS stations, and in other locations frequented by EMS personnel (see suggested screening criteria).			
Designate points of contact within their EMS organization/system responsible for communicating with state and local public health officials. **Remember:** Ebola must be reported to local, state, and federal public health authorities.			
Ensure that all personnel are familiar with the protocols and procedures for notifying the designated points of contact regarding a PUI for Ebola.			
Conduct spot checks and reviews for staff to ensure they are incorporating Ebola screening into their patient assessment and management procedures and are able to initiate notification, isolation, and PPE procedures.			

PREPARE TO PROTECT	C	IP	NS
Consider travelers with fever, fatigue, vomiting and/or diarrhea and returning from affected West African countries as potential cases, and obtain additional history.			

Conduct a detailed inventory of available supplies of PPE suitable for standard, contact, and droplet precautions. Ensure an adequate supply, for EMS personnel, of:
• Fluid resistant or impermeable gowns,
• Gloves,
• Shoe covers, boots, and booties, and
• Appropriate combination of the following:
  o Eye protection (face shield or goggles),
  o Facemasks (goggles or face shield must be worn with facemasks),
  o N95 respirators (for use during aerosol-generating procedures)
• Other infection control supplies (e.g. hand hygiene supplies).			

Ensure that PPE meets nationally-recognized standards as defined by the Occupational Safety & Health Administration (OSHA), National Institute for Occupational Safety and Health (NIOSH), Food and Drug Administration (FDA), or Interagency Board for Equipment Standardization and Interoperability.			
Review plans, protocols, and PPE purchasing with community/coalition partners that promote interoperability and inter-agency/facility coordination.			
Ensure Ebola PPE supplies are maintained in all patient care areas (transport unit and in bags/kits).			
Verify all EMS personnel: • Meet all training requirements in PPE and infection control,			

• Are able to use PPE correctly, • Have proper medical clearance, • Have been properly fit-tested on their respirator for use in aerosol-generating procedures or more broadly as desired, and • Are trained on management and exposure precautions for PUI for Ebola.			
Encourage EMS personnel to use a "buddy system" when putting on and removing PPE.			
Review CDC guidelines for isolation precautions and share with EMS personnel.			
Frequently spot-check (for example through quality assurance/quality improvement) to be sure standard, contact and droplet infection control and isolation guidelines are being followed, including safely putting on and removing PPE.			
Ensure procedures are in place to require that all EMS personnel accompanying a patient in a transport unit are wearing (at minimum): gloves, gown (fluid resistant or impermeable), eye protection (goggles or face shield), and a facemask.			
Ensure procedures are in place to limit EMS personnel exposure to PUI for Ebola during treatment and transport.			
Review and update, as necessary, EMS infection control protocols/procedures.			
Review your policies and procedures for screening, isolation, medical consultation, and monitoring and management of EMS personnel who may have Ebola exposure and/or illness.			
Review and update, as necessary, all EMS agency protocols and procedures for isolation of PUI for Ebola .			
Review the agency's infection control procedures to ensure adequate implementation for preventing the spread of Ebola.			
Review protocols for sharps injuries and educate EMS personnel about safe sharps practices to prevent sharps injuries.			
Emphasize the importance of proper hand hygiene to EMS personnel.			
Develop contingency plans for staffing, ancillary services, vendors, and other business continuity plans.			
Review plans for special handling of linens, supplies, and equipment from PUI for Ebola.			
Review environmental cleaning procedures and provide education/refresher training to appropriate personnel.			
Provide education and refresher training to EMS personnel on healthcare personnel sick leave policies.			
Review policies and procedures for screening and work restrictions for exposed or ill EMS personnel, and develop sick leave policies for EMS personnel that are non-punitive, flexible, and consistent with public health guidance.			
Ensure that EMS personnel have ready access, including via telephone, to medical consultation.			

PREPARE TO RESPOND	**C**	**IP**	**NS**
Review, implement, and frequently exercise the following elements with EMS personnel: • Appropriate infectious disease procedures and protocols, including putting on and taking off PPE.			

• Appropriate triage techniques and additional Ebola screening questions, • Disease identification, testing, specimen collection and transport procedures, • Isolation, quarantine and security procedures, • Communications and reporting procedures, and • Cleaning and disinfection procedures.			
Review plans and protocols, and exercise/test the ability to appropriately share relevant health data between key stakeholders, coalition partners, public health, emergency management, etc.			
Review, develop, and implement plans for: adequate respiratory support, safe administration of medication, and sharps procedures; and reinforce proper biohazard containment and disposal precautions.			
Ensure that EMS agency leaders are familiar with their responsibilities during a public health emergency.			
Consider identifying a Communications/Public Information Officer who: • Develops appropriate literature and signage for posting (topics may include definitions of low-risk, high-risk and explanatory literature for patient, family members and contacts), • Coordinates with public health on targeted risk communication messages for use in the event of a PUI for Ebola. • Requests appropriate Ebola literature for dissemination to EMS personnel, patients, and contacts, • Prepares written and verbal messages, ahead of time, that have been approved, vetted, rehearsed and exercised, and • Works with internal department heads and clinicians to prepare and vet internal communications to keep EMS personnel informed.			
Plan for regular situational briefs for decision-makers, including: • PUI for Ebola who have been identified and reported to public health authorities, • Isolation, quarantine and exposure reports, • Supplies and logistical challenges, • Personnel status, and • Policy decisions on contingency plans and staffing.			
Maintain situational awareness of reported Ebola case locations, travel restrictions, and public health advisories, and update patient assessment and management guidelines accordingly.			
Incorporate Ebola information into educational activities (e.g. initial/ refresher training, drills, and exercises).			
Implement, as needed, a multijurisdictional, multidisciplinary exchange of public health and medical-related information and situational awareness between EMS; the health care system; local, state, federal, tribal, and territorial levels of government; and the private sector.			

Quick Resources List

The CDC has produced several resources and references to help agencies prepare for Ebola, and more resources are in development. Information and guidance posted on these resources may change as experts learn more about Ebola. Frequently monitor the CDC's Ebola Homepage, and review CDC's Ebola response guide checklists for:

- Clinician and healthcare workers,

- Department of Transportation Guidance for Transporting Ebola Contaminated Items, a Category A Infectious Substance
- Patient Management for US Hospitals
- Healthcare facilities.

Stay informed! Subscribe to the following sources to receive updates about Ebola:

- CDC Health Alert Network (HAN),
- CDC Clinician Outreach and Communication Activity (COCA),
- CDC National Institute for Occupational Safety and Health, and
- U.S. Department of Labor's Occupational Safety & Health Administration (OSHA) Newsletter.

Below are a few of the resources most relevant to healthcare preparedness:

- Interim Guidance for Emergency Medical Services Systems and 9-1-1 PSAPs.
- Ebola Virus Disease Information for Clinicians in U.S. Healthcare Settings,
- Case Definition for Ebola Virus Disease. This case definition should be used for screening patients and should be implemented in all healthcare facilities.
- Safe Management of Patients with Ebola Virus Disease in US Hospitals,
- Infection Prevention and Control Recommendations for Hospitalized Patients with Known or Suspected Ebola Hemorrhagic Fever in U.S. Hospitals. This document provides a summary of the proper Personal Protective Equipment (PPE).
- Interim Guidance for Specimen Collection, Transport, Testing, and Submission for Patients with Suspected Infection with Ebola Virus Disease.
- Sequence for Removing Personal Protective Equipment (PPE)
- National Guidance for Healthcare System Preparedness' Capabilities, with particular emphases on Capability #6 *(Information Sharing)* and Capability #14 *(Responder Safety and Health)*

Check CDC's Ebola Hemorrhagic Fever website regularly for the most current information. State and local health departments with questions should contact the CDC Emergency Operations Center (770-488-7100 or eocreport@cdc.gov).

Attachment A
Ebola Virus Disease (EVD) Awareness for EMS

EMS patient assessment criteria for isolation/hospital notification are likely to be:

1. Fever, headache, joint and muscle aches, weakness, fatigue, diarrhea, vomiting, stomach pain and lack of appetite, and in some cases bleeding.

AND

2. Travel to West Africa (Guinea, Liberia, Sierra Leone, Senegal, Nigeria or other countries where Ebola transmission has been reported by WHO) within 21 days (3 weeks) of symptom onset.

If both criteria are met, then the patient should be isolated and STANDARD, CONTACT, and DROPLET precautions followed during further assessment, treatment, and transport.

IMMEDIATELY Report Suspected Ebola Case(s) to Receiving Facility.

If patient is not transported (refusal, pronouncement, etc.):

1. Inform Local and State Public Health Authorities: (Name), (Email), (Phone)
2. Inform the U.S. Centers for Disease Control and Prevention (CDC), available 24/7, at 770-488-7100, or via the CDC Emergency Operations Center (EOC) at eocreport@cdc.gov.

Sources: http://www.cdc.gov/vhf/ebola/hcp/case-definition.html, http://www.bt.cdc.gov/han/han00364.asp, http://www.cdc.gov/vhf/ebola/hcp/infection-prevention-and-control-recommendations.html.