



COUNTY OF ORANGE HEALTH CARE AGENCY

HEALTH DISASTER MANAGEMENT EMERGENCY MEDICAL SERVICES

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TO: OCEMS DISTRIBUTION LIST

FROM: SAM J. STRATTON, MD, MPH
ORANGE COUNTY EMS MEDICAL DIRECTOR

SUBJECT: EMS RELATED EBOLA UPDATE # 5

This memorandum provides an overview of the Orange County Emergency Medical Services (OCEMS) Ebola preparedness and response plan. Please refer to the attached EMS Response Framework for more detailed direction.

1. EBOLA CASE DEFINITION (MODIFIED FOR FIELD OPERATION):

Symptom(s): Person presenting with fever (subjective or measured) with or without abdominal pain, vomiting, diarrhea, headache, non-traumatic bleeding, or muscle aches. Note that fever is the primary symptom of interest.

Exposure History: Travel within the **past three weeks** to the African countries of **Liberia**, **Sierra Leon**, or **Guinea**.

If multiple primary Ebola cases begin to be recognized in the U.S., there may be "history of contact with an Ebola victim within three weeks" added to the exposure history, but at this time the symptoms and exposure history stated above are the working case definition for suspected Ebola infection.

2. DISPATCH:

A. OCEMS has issued instructions to 9-1-1 emergency dispatch and ambulance dispatch centers to begin call screening for potential Ebola victims (OCEMS Ebola Update # 3). Using the Ebola case definition, both 9-1-1 Emergency and Non-emergency Ambulance Dispatch Centers are expected to screen calls for "sick persons" to determine if Ebola should be suspected. At a minimum, dispatch determination of reported subjective or measured fever and travel to Ebola risk countries is to be determined.

B. If dispatch determines there is a call that may meet the case definition; field personnel are to be advised to approach the patient in personal protective equipment (PPE).

C. Dispatch centers will report positive call screening incidents to the OCEMS Duty Officer 24/7.

3. ARRIVAL AT SCENE OR FIELD CONTACT WITH A PREVIOUSLY UN-IDENTIFIED SUSPECTED EBOLA VICTIM:

A. Non-Emergency ambulance crews who are on-scene and determine a patient meets Ebola case definition criteria, should withdraw from the patient and vacate the room or structure and elevate the call to 9-1-1.

B. EMS personnel should minimize contact until PPE is donned. If EMS personnel are exposed to body fluids or within six feet of a suspected Ebola victim who is sneezing or coughing, they must immediately remove all clothing, proceed with full body decontamination with copious washing with water and soap, if available, and cover with a clean sheet. Further isolation or follow-up of a contaminated EMS worker will depend on risk of Ebola and blood test for Ebola determination of the primary case. OCEMS policy # 330.96 (attached) provides contact exposure policy details.

C. 9-1-1 Emergency crews should don appropriate PPE equipment and prepare the patient for transport. Base contact is to be made to determine the appropriate EMS Receiving Center. As early as possible, the receiving hospital must be notified of the suspicion for Ebola. At present, special Ebola prepared hospitals have not been identified and suspected Ebola victims are to be transported to the nearest open EMS Receiving Center.

D. Transport should only occur in a transport ambulance prepared with plastic sheeting to isolate the patient compartment.

E. Field EMS crews who identify a suspected Ebola victim must notify Orange County Public Health/Epidemiology (714 834 8180) as soon as possible.

4. PERSONAL PROTECTIVE EQUIPMENT (PPE):

For suspected Ebola cases, OCEMS requires full body PPE without exposure of skin (this is now the latest Center for Disease Control recommendation). It is particularly important to avoid exposure of body fluids or droplets to the eyes, nose, and mouth. EMS personnel must be trained in proper donning and taking off of PPE to avoid cross contamination.

A. Required PPE for suspected Ebola response:

- Water impermeable coverall suit with hood
- Water impermeable shoe/boot covers and leg covering (if not part of coverall suit)
- Goggles
- Face shield (use in combination with goggles)
- N-95 or P-100 respirator
- Two sets of medical gloves (for double gloving)

PPE (continued):

B. A second person in approved PPE is required to remove the contact EMS provider(s) PPE as a buddy being careful that cross contamination does not occur.

C. Note that OCEMS requires both goggles and face shield protection which is above that recommended by the CDC. Any potentially open area of PPE (such as below face shield should be covered with water repellant duct tape or equivalent).

D. When it has been determined that a person meets Ebola case definition criteria, an N-95 mask should be placed on the patient if it can be tolerated by that individual (to limit potential droplet spread).

E. In addition to PPE equipment, 0.5% bleach solution (or equivalent virucide) must be available to clean under-gloves after removal of outer-gloves when in the process of removing PPE.

F. Attached to this update are detailed instructions for donning and removing PPE equipment.

5. FIELD ASSESSMENT AND TREATMENT:

A. EMS personnel contact and exposure to a suspected Ebola victim is to be minimized. Only one or two personnel should initially approach a suspected case. When possible a distance of six feet from the victim should be maintained.

B. Only basic life support (BLS) procedures are to be used when it has been established that a person meets Ebola case definition criteria. Endotracheal intubation, venous access, patching for cardiac monitoring, and other advanced life support (ALS) actions are discouraged and appropriate to withhold in this setting. BLS crew assessment of pulse rate and pulse quality rather than placing a blood pressure cuff is authorized by OCEMS for assessment of persons who meet Ebola case definition criteria.

Support of ventilation with bag-valve-mask as a maximum action is appropriate when managing a suspected Ebola victim and if equipment can be wrapped or kept from being contaminated, finger clip pulse oximetry is appropriate for monitoring.

C. Suspected Ebola victims presenting in respiratory or full arrest should be considered for base contact pronouncement in the field. Persons pronounced dead or found dead who are suspected of being Ebola victims should be isolated and referred to the Orange County Coroner.

6. TRANSPORT/DESTINATION:

A. Suspected Ebola victims should be transported in ambulances prepared with plastic sheeting (such as Visqueen) that isolate the inside of the patient compartment.

B. Until hospitals are designated by Orange County Public Health as preferred for receiving suspected Ebola cases, transport should be to the nearest open receiving center. Base contact is required for all suspected Ebola victim transports and receiving centers must be notified prior to arrival of the incoming suspected Ebola case.

C. Contaminated waste must be double bagged in red plastic medical waste bags and held by the EMS provider agency until further direction is provided by the Orange County Health Care Agency. Waste may need to be held with the transport ambulance until final testing is completed to determine if the patient is positive for Ebola.

D. Response equipment (including ambulance) should be decontaminated by a HCA approved procedure or bio-waste decontamination contractor prior to being placed back into service. Equipment can be held out of service pending testing of the suspected victim for Ebola and returned to service if testing is negative (may take up to six days).

7. ARRIVAL AT RECEIVING CENTER:

A. Contact receiving center prior to arrival to establish patient offload location. To avoid contamination of emergency departments or hospital hallways, hospitals are encouraged to offload suspected Ebola victims outside the ambulance entrance onto a hospital gurney.

B. EMS crews should remove PPE after handoff of the patient, preferably at the ambulance entrance with all PPE and other potentially contaminated material double-bagged and kept with the transport ambulance. After securing contaminated material, the transport ambulance can be moved and isolated by the transport provider and decontaminated per Orange County Environmental Health approved guidelines or by a contracted professional decontamination company.

8. REPORTING REQUIREMENTS:

After assessment on scene or as soon as possible, if there is a suspected Ebola case, the Orange County Health Care Agency is to be notified at (714) 834-8180.

Attachments:

1. Interim OC HCA EMS Response Framework (including PPE instructions)
2. OCEMS Policy # 330.96

CC: HCA HDM Program Manager
OCEMS Program Administrator
OCEMS ALS Coordinator