To: Maryland EMS Program Officials and Medical Directors

From: Richard L. Alcorta, M.D., F.A.C.E.P.

Date: October 12, 2014

RE: Emerging Infectious Diseases. *UPDATE 1*

Since the beginning of October, Maryland healthcare providers have encountered 17 patients under investigation (PUI) of exposure to Ebola. Three of these were initially encountered by EMS. All were low to no risk of exposure and Ebola was ruled out in all cases. There have been no confirmed cases of Ebola Viral Disease (EVD) in Maryland.

**Person Under Investigation (PUI)**

A person who has both consistent symptoms and risk factors as follows:

1. Clinical criteria, which includes fever of greater than 38.6 degrees Celsius or 101.5 degrees Fahrenheit, and additional symptoms such as severe headache, muscle pain, vomiting, diarrhea, abdominal pain, or unexplained hemorrhage; AND

2. Epidemiologic risk factors within the past 21 days before the onset of symptoms, such as contact with blood or other body fluids or human remains of a patient known to have or suspected to have EVD; residence in—or travel to—an area where EVD transmission is active; or direct handling of bats or non-human primates from disease-endemic areas.

The affected areas continue to evolve but currently only includes the countries of Liberia, Guinea and Sierra Leone. Take the time to review this case definition at [http://www.cdc.gov/vhf/ebola/hcp/case-definition.html](http://www.cdc.gov/vhf/ebola/hcp/case-definition.html) and encourage your providers to stay informed.

These PUI cases are stratified into High Risk, Low Risk and No Risk Categories.

**High risk exposures**

A high risk exposure includes any of the following:

- Percutaneous (e.g., needle stick) or mucous membrane exposure to blood or body fluids of EVD patient
- Direct skin contact with, or exposure to blood or body fluids of, an EVD patient without appropriate personal protective equipment (PPE)
- Processing blood or body fluids of a confirmed EVD patient without appropriate PPE or standard biosafety precautions
- Direct contact with a dead body without appropriate PPE in a country where an EVD outbreak is occurring
Low risk exposures
A low risk exposure includes any of the following

- Household contact with an EVD patient
- Other close contact with EVD patients in health care facilities or community settings.
  Close contact is defined as
    a. being within approximately 3 feet (1 meter) of an EVD patient or within the
       patient’s room or care area for a prolonged period of time (e.g., health care
       personnel, household members) while not wearing recommended personal
       protective equipment (i.e., standard, droplet, and contact precautions; see
       Infection Prevention and Control
       Recommendations[http://www.cdc.gov/vhf/ebola/hcp/patient-management-us-hospitals.html])
    b. having direct brief contact (e.g., shaking hands) with an EVD patient while not
       wearing recommended personal protective equipment.

- Brief interactions, such as walking by a person or moving through a hospital, do not
  constitute close contact

No known exposure
Having been in a country in which an EVD outbreak occurred within the past 21 days and having
had no high or low risk exposures

Being informed is our best defense for controlling this African outbreak. Please visit the CDC
websites and links we have provided often, as this situation continues to evolve. Most of your
questions can be answered in those documents and links. MIEMSS and DHMH will try to update
you on a regular basis and provide you additional resources as they become available. Following
are points of emphasis and clarification.

DHMH Secretary’s Directive and Order October 8, 2014
The Maryland Secretary of Health has issued a directive to healthcare workers in Maryland (see
attached). Essentially this directive requires healthcare workers to isolate patients meeting the
case definition for Ebola and report the encounter to their local health department. If the
patient refused to remain under the care of healthcare workers, they are to alert the local
health department who may elicit the assistance of law enforcement officers to contain that
patient until Ebola can be confirmed or ruled out. To ensure EMS complies with this directive,
EMS providers must report cases as follows.

- When transporting PUIs, notify the hospital and EMRC by consult prior to arrival at the
  hospital. The hospital is then responsible to report the case to the Local Heath Department.
  Both the Local Health Officer and MIEMSS will notify DHMH epidemiologist on call.

- If the PUI for Ebola patient is encountered by EMS but NOT transported, immediately notify
  your Local Health Department. This case is likely to involve law enforcement.
Lead EMS officials must make contact with your local health department now to determine the 24/7 contract process and the specific local procedures to deal with the unlikely case where a PUI refuses to be transported. Maryland State Police and the Maryland Coordination and Analysis Center are working with DHMH to provide more direction to local health and law enforcement officials. Determine the means to contact your Local Health Department and incorporate that number/procedure into the poster at the end of the EMS Checklist (Attached Check list using Appendix A) and have your EMS providers post it in your medic units.

Follow Up on Reported Cases
Any cases reported to EMRC and MIEMSS as required above are reported to DHMH. DHMH Office of Preparedness and Response will provide follow up to MIEMSS on the results of those cases and MIEMSS will provide that feedback to EMS Operational Programs only if the case is confirmed to be positive for Ebola.

Modification to EMD
MIEMSS recently distributed a link from Medical Priority Dispatch (MPD) to their EIDS (Emerging Infectious Disease Surveillance) Tool in ProQA Paramount (v5.0/v5.1) and Legacy (v3.4). This is posted on their open website and available to users of MPD and other EMD systems. If not already instituted, ALL EMD programs must institute this card and protocol by Monday, October 13. The software version is currently downloadable from the MPD website.
http://www.prioritydispatch.net/hot-off-the-press/eids-tool

PPE
I cannot over emphasize the proper use of the appropriate PPE, especially donning and disposal. In my previous memo I provided a link to a poster from CDC on the proper donning, doffing and disposal of PPE. The team approach of buddy doffing reduces the risk of contamination during the doffing procedure. I encourage you to have your providers print these procedures and post them in your units near where the PPE is stored. We have researched several video available on line and found minor flaws in all of them that we viewed. MIEMSS will work with subject matter experts to produce a video for your use in the near future and post it on our website.

Protecting and decontaminating transport units
Procedures for decontamination of transport units can be found here
http://www.cdc.gov/vhf/ebola/hcp/environmental-infection-control-in-hospitals.html . Although this guidance is for hospitals, the principles remain the same. Use a U.S. Environmental Protection Agency (EPA)-registered hospital disinfectant with a label claim for a non-enveloped virus (e.g., norovirus, rotavirus, adenovirus, poliovirus) to disinfect environmental surfaces in rooms of patients with suspected or confirmed Ebola virus infection or a 1:10 bleach solution. If the commercial disinfectant product is used, follow the manufacturer’s directions. If a bleach solution is used, allow it to remain on surfaces for 5 minutes before removing. Decontaminate all exposed surfaces. Instruct your providers to attempt to reduce the amount of exposed surfaces by ensuring all cabinets are closed securely,
removing or covering equipment or devices in the action areas and, as all porous linens will need to be discarded, it is best to remove them before placing patient on the stretcher.

**Disposal/Containment of contaminated waste and porous materials.**
All PPE, disposable supplies, and other contaminated linens must be double bagged in biohazard bags. Sharps used on PUIs must also be placed in sharp-safe containers and left at the hospitals for immediate disposal. NO contaminated waste from a PUI is to be left on the transport units at any time. If porous reusable devices, equipment or clothing are contaminated, MIEMSS suggest those items be double bagged, labelled, and left at the hospital with instructions for them to be held until Ebola is confirmed or ruled out. If confirmed those items must be appropriately disposed of and destroyed. If Ebola is ruled out they may be cleaned and returned to service.

**Protection and care of Providers**
Finally, but most importantly, please protect your providers. Again, be sure they have all the information and know how to get their questions answered. If, unfortunately, someone does become exposed (direct contact with bodily fluids of a PUI for Ebola or contaminated surfaces), the EMS provider should promptly be decontaminated and the exposed surface thoroughly cleaned. Then the EMS provider shall case report the exposure immediately to the ESM Operational Program’s infection control officer (as required by COMAR) who can promptly notify the receiving hospital infection control practitioner and local health officer. The need for quarantine and twice daily temperature checks will ultimately be decided by the Local Health Officer, but generally the need for quarantining a provider will be based on confirmation of

1. Specific confirmed contact with bodily fluid, and
2. Confirmation of Ebola infection in the PUI patient who was the source patient of the exposure.

There is no need to quarantine a provider while waiting for the results of any testing of a PUI as the provider will not be immediately infectious.

I hope this clarifies and updates some of the processes. Although the media reports tend to make you believe differently, progress to control of this outbreak is being made. Nigeria and Senegal have been removed from the list of countries with widespread transmission. We do need to remain vigilant, but it does not mean we need to over react.

MIEMSS would like to stay in close contact with all of you as we proceed with this challenge. At least for now, the Regional Administrators, or SOCLAR staff will be following up with EMS Operational Programs after each report of a PUI to get more details and ensure that all the protective measures were taken. MIEMSS expect to modify this practice as we move forward after we get more experience. If you have any questions or concerns, please contact your Regional Administrator or the SOCLAR office. If they cannot answer your question, they will forward the issue on and get back to you.