Southwest Virginia
Emergency Medical Services Council, Inc.

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Regional Ebola Virus Disease (EVD) Response Guide

I. Purpose

The purpose of this guide is to provide guidance and recommendations for the care and transport of patients with suspected Ebola Virus Disease. This document provides guidance throughout the continuum of care for dispatch centers and EMS agencies for the purpose of Ebola Virus Disease (EVD) planning and preparedness. The information contained within this document is based on current Centers of Disease Control recommendations and is not meant as a comprehensive resource. This document is for information and reference purposes only and should be used in conjunction with current information provided by the Virginia Office of Emergency Medical Services, the Virginia Department of Health, and the CDC.

Agencies should develop and adhere to policies and procedures specific to their organization in conjunction with their Operational Medical Director. While departments may use this document to help formulate and develop response objectives and tactics, agencies should work with both their local health department and Operational Medical Director to develop patient care plans and for ongoing review and revision of these plans. As information regarding this disease is updated, response plans and procedures should be updated to ensure they incorporate current CDC recommendations and guidelines. If changes are made to this document, it will be updated and posted to the SWVEMS website.

For general questions concerning EVD, EMS agencies and providers should contact Karen Owens, Emergency Operations Division Manager of the Office of EMS at (804) 888-9100. VDH has also established a hotline for EVD information, 1-877-ASK VDH3 (1-877-275-8343).

II. Risk Considerations

EMS agencies and providers should understand that the risk of contacting EVD in the US is extremely small. Recent travel to and from areas with high incidence of EVD and signs/symptoms of EVD are major considerations. Prevention policies are in place to prevent the introduction and spread of EVD into the United States. In evaluating risk, EMS providers should be aware of the following:

1. In an effort to prevent introduction of additional EVD cases into the US, all travelers arriving from Sierra Leone, Guinea, Liberia, and Mali are being screened at the airport when they enter the US. Ill travelers are immediately transferred to a hospital for evaluation. Travelers who are well are referred to public health officials in their destination state. The Virginia Department of Health (VDH) is notified of travelers who will be in Virginia during the 21 day incubation period for EVD. VDH personnel will monitor each traveler to assure that travelers who develop symptoms suggestive of EVD are identified early, and treated at hospitals able to maintain strict isolation to limit potential for transmission to others.

2. Even if a person has recently entered the US from an EVD outbreak country, he/she is not infectious, unless he/she develops symptoms of EVD.

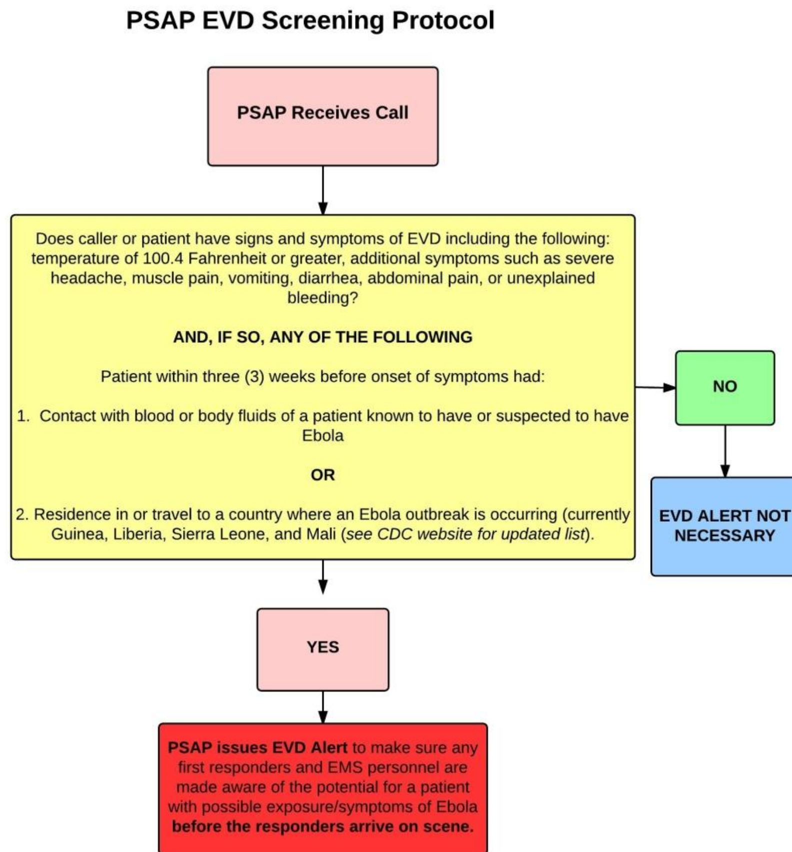
3. The ebola virus is transmitted by direct unprotected contact with the blood or body fluids (like urine, saliva, feces, vomit, sweat, and semen) from a person who is sick with EVD.

4. The ebola virus is not transmitted by casual contact (i.e. being near the patient, without contact with blood or other body fluids.)

III. Public Safety Answering Point (PSAP) Recommendations

PSAPs serve a vital role in ensuring the health and safety of both emergency medical personnel and patients. This is especially true when risk of Ebola is elevated in their community. PSAPs should develop protocols aimed at identifying suspected EVD patients and communicating this information to EMS personnel. Recommended minimum PSAP protocols should include the following:

Figure 1: PSAP EVD Protocol



Screening protocols should incorporate this guidance. PSAPs should tell EMS personnel this information before they get to the location so they can put on the correct PPE following proper procedures as described in CDCs guidance: "Guidance on Personal Protective Equipment To Be Used by Healthcare

Workers During Management of Patients with Ebola Virus Disease in U.S. Hospitals, Including Procedures for Putting On (Donning) and Removing (Doffing) (http://www.cdc.gov/vhf/ebola/hcp/procedures-for-ppe.html).

The Council recognizes the PSAPs may develop their own protocol for dealing with possible Ebola calls and presumes no authority to ensure use of or compliance with these recommendations. The Council strongly encourages PSAPs to ensure that Ebola screening protocols at minimum question callers about the following and that such information is relayed to first responders:

A. Residence in, or travel to, a country where an Ebola outbreak is occurring (Liberia, Guinea, Sierra Leone and Mali); [Note CDC website should be viewed regularly, as the list of outbreak countries may change.]
B. Signs and symptoms of Ebola (such as fever, vomiting, diarrhea); **AND**
C. Other risk factors, such as direct contact with someone who is sick with Ebola.

It is only through a coordinated screening response that we can ensure the safety of EMS personnel, healthcare workers, and patients.

IV. EMS Agency EVD Response Recommendations

Responding to an EVD Alert requires proper planning and precautions. EMS agencies and personnel should ensure that they have the proper personal protective equipment (PPE) available prior to responding to an EVD Alert.

The Southwest Virginia EMS Council recommends that EMS agencies identify one EVD response team that has undergone specific training and preparation for the care of suspected Ebola patients. Team members should, at a minimum, meeting the following criteria:

- Current fit testing (N95). This can be completed by the Virginia Department of Health.
- Training in Donning/Doffing of Personal Protective Equipment per CDC guidelines
- Additional training in infectious disease

EMS agencies should attempt to minimize exposure to EVD whenever possible. Figure 2 provides specific guidelines for response to suspected EVD patients by EMS personnel.

- Personnel should be limited to those required to care for the patient.
- Patient care activities should be limited to limit exposure to infectious materials.
- The patient should be isolated and **STANDARD, CONTACT,** and **DROPLET** precautions followed during further assessment, treatment, and transport.
- EMS responders should immediately notify the receiving healthcare facility in advance when they are bringing a patient with suspected Ebola, so that proper infection control precautions can be taken at the healthcare facility before EMS arrives with the patient.
- The Council will publish a recommended protocol on its website, www.southwest.vaems.org.

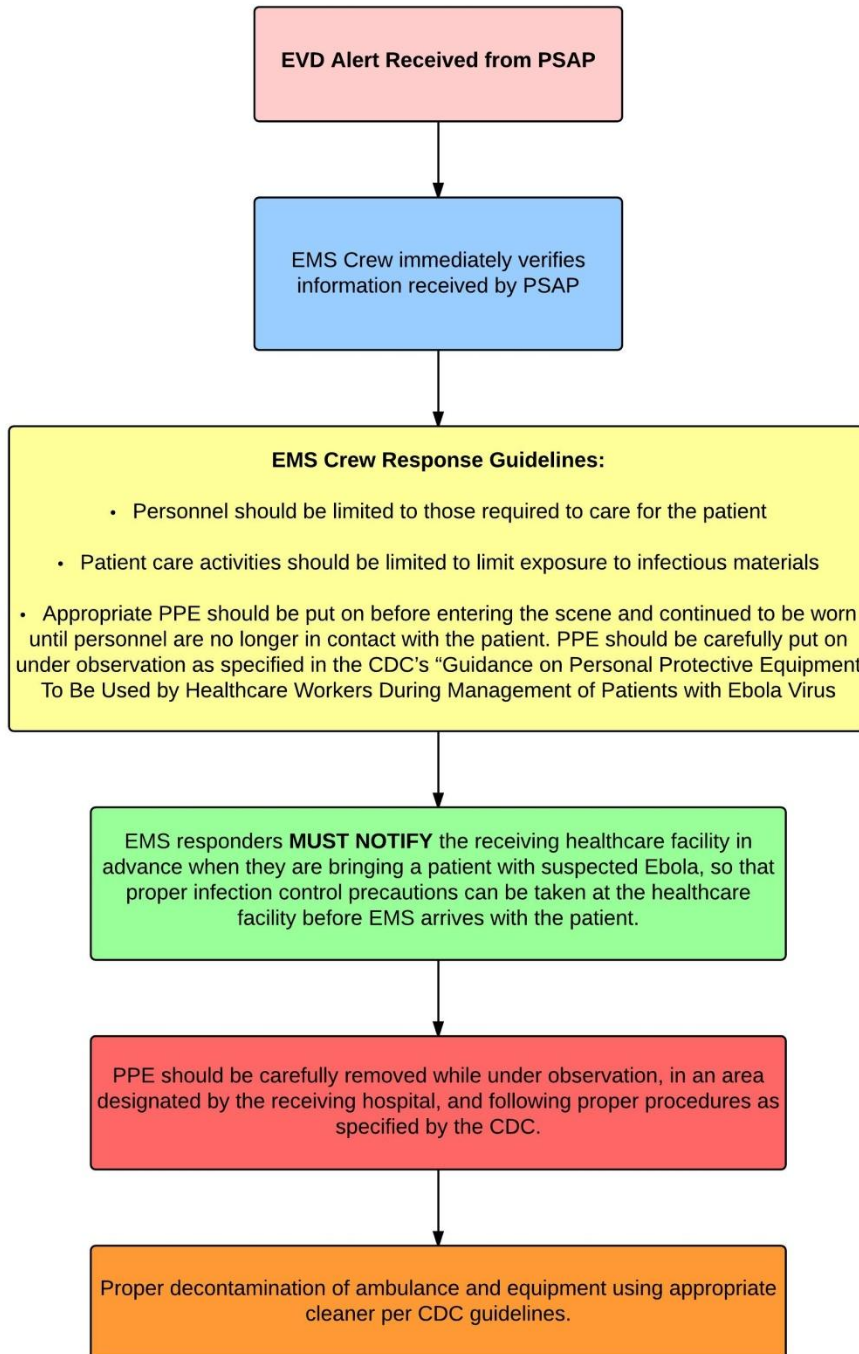
A. Personal Protective Equipment

- PPE should be put on before entering the scene and continued to be worn until personnel are no longer in contact with the patient. PPE should be carefully put on under observation as specified

in the CDC's "Guidance on Personal Protective Equipment To Be Used by Healthcare Workers During Management of Patients with Ebola Virus Disease in U.S. Hospitals, Including Procedures for Putting On (Donning) and Removing (Doffing) (http://www.cdc.gov/vhf/ebola/hcp/procedures-for-ppe.html)".

- PPE should be carefully removed while under observation, in an area designated by the receiving hospital, and following proper procedures as specified in the CDC's "Guidance on Personal Protective Equipment To Be Used by Healthcare Workers During Management of Patients with Ebola Virus Disease in U.S. Hospitals, Including Procedures for Putting On (Donning) and Removing (Doffing) (http://www.cdc.gov/vhf/ebola/hcp/procedures-for-ppe.html)".

Figure 2: EMS EVD Response Guidelines



EMS Provider Personal Protective Equipment (PPE) – Recommendations

The Center for Disease Control and Prevention (CDC) recommends each agency 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 (preferably fluid resistant or impermeable suit with hood)
- Double layer of gloves
- Shoe covers, boots, and booties
- All of the following:
  - N95 respirators or greater (i.e. APR, PAPR, SCBA)
  - Eye protection
  - Fluid/splash shield (in addition to eye protection and N95 mask)
- Other infection control supplies (e.g. hand hygiene supplies)

  See the Current CDC PPE Recommendations for health care providers treating patients with suspected Ebola at http://www.cdc.gov/vhf/ebola/hcp/procedures-for-ppe.html

EMS Provider Personal Protective Equipment (PPE) – Deployment (Donning)

- Don full PPE entirely before physical contact with patient / entry into scene.
- Limit exposed personnel to only the number required for patient care.
- Patients and properly protected providers must only ride in patient compartment.
- Cab of ambulance must always remain clean as possible.
  - If possible, seal off cab compartment prior to loading patient.
  - If possible, the driver should not participate in patient care/movement to keep the cab from becoming contaminated.

EMS Provider Personal Protective Equipment (PPE)—Decontamination (Doffing)

- Note: Most provider exposures occur during the PPE Removal (doffing) process.
- The use of a "buddy system" is recommended.
- Providers will await decontamination assistance from hospital personnel.
- Providers will doff and dispose of PPE utilizing CDC recommendations (see the current CDC recommendations for doffing PPE at http://www.cdc.gov/vhf/ebola/hcp/procedures-for-ppe.html .
- Hospital staff should provide a change of clothing to the EMS provider

If patient is not transported (refusal):

If a patient is exhibiting signs or symptoms and has traveled to, or had contact with a person who has traveled to or come from, a country where an Ebola outbreak is occurring but refuses transport, providers should report patient information to their local health department for follow-up. Use the Virginia Health Department phone number: **866-531-3068** (available 24hrs a day). Ask for the epidemiology investigator on call. They will give you instructions and provide you with your local call number.

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

The CDC provides recommendations give guidance on the safe handling of human remains that may contain Ebola virus and are for use by personnel who perform postmortem care in U.S. hospitals and mortuaries. In patients who die of Ebola virus infection, virus can be detected throughout the body. Ebola virus can be transmitted in postmortem care settings by laceration and puncture with contaminated instruments used during postmortem care, through direct handling of human remains without appropriate personal protective equipment, and through splashes of blood or other body fluids (e.g. urine, saliva, feces) to unprotected mucosa (e.g., eyes, nose, or mouth) which occur during postmortem care.

- Only personnel trained in handling infected human remains, and wearing PPE, should touch, or move, any Ebola-infected remains.
- Handling of human remains should be kept to a minimum.
- Autopsies on patients who die of Ebola should be **avoided.** If an autopsy is necessary, the state health department and CDC should be consulted regarding additional precautions. Transportation of remains that contain Ebola virus should be minimized to the extent possible.
- All transportation, including local transport, for example, for mortuary care or burial, should be coordinated with relevant local and state authorities in advance.
- Interstate transport should be coordinated with CDC by calling the Emergency Operations Center at 770-488-7100. The mode of transportation (i.e., airline or ground transport), must be considered carefully, taking into account distance and the most expeditious route.
- Although Ebola virus is a Category A infectious substance regulated by the U.S. Department of Transportation's Hazardous Materials Regulations (HMR, 49 Code of Federal Regulations Parts 171-180), DOT has issued guidance that human remains contaminated with a category A infectious substance are excepted from the HMR.
- Transportation of remains that contain Ebola virus outside the United States would need to comply with the regulations of the country of destination, and should be coordinated in advance with relevant authorities

EMS personnel must contact a local/state medical examiner before moving human remains that may contain Ebola virus.

B. Decontamination Recommendations

The following are general guidelines for cleaning or maintaining EMS transport vehicles and equipment after transporting a patient with suspected or confirmed Ebola:

- An EPA-registered hospital disinfectant with label claims for viruses that share some technical similarities to Ebola (such as, norovirus, rotavirus, adenovirus, poliovirus) and instructions for cleaning and decontaminating surfaces or objects soiled with blood or body fluids should be used according to those instructions. After the bulk waste is wiped up, the surface should be disinfected as described below.

- EMS personnel performing cleaning and disinfection should follow the "Guidance on Personal Protective Equipment To Be Used by Healthcare Workers During Management of

Patients with Ebola Virus Disease in U.S. Hospitals, Including Procedures for Putting On (Donning) and Removing (Doffing)(http://www.cdc.gov/vhf/ebola/hcp/procedures-for-ppe.html)". **There should be the same careful attention to the safety of the EMS personnel during the cleaning and disinfection of the transport vehicle as there is during the care of the patient.**

- Patient-care surfaces (including stretchers, railings, medical equipment control panels, and adjacent flooring, walls and work surfaces), as well as stretcher wheels, brackets, and other areas are likely to become contaminated and should be cleaned and disinfected after each transport.

- A blood spill or spill of other body fluid or substance (e.g., feces or vomit) should be managed by trained personnel wearing correct PPE, 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. Contaminated reusable patient care equipment (e.g., glucometer, blood pressure cuff) should be placed in biohazard bags and labeled for cleaning and disinfection according to agency policies. Reusable equipment should be cleaned and disinfected according to manufacturer's instructions by trained personnel wearing correct PPE. Avoid contamination of reusable porous surfaces that cannot be made single use.

- Use only a mattress and pillow with plastic or other covering that fluids cannot get through. To reduce exposure among staff to potentially contaminated textiles (cloth products) while laundering, discard all linens, non-fluid-impermeable pillows or mattresses as appropriate.

C. Follow up of EMS personnel after caring for a EVD case

- EMS responders should keep a log of all responders with a summary of each person's response activity and duration of contact with the patient.

- VDH local health department staff will review the list of responders and will coordinate post-response monitoring.

V. Destination Determination

The Council is working collaboratively with the Virginia Department of Health, local EMS agencies, and healthcare facilities to ensure that suspected EVD patients receive appropriate care. Transport and destination decisions are essential components of this process.

A. Hospital Destinations

The Virginia Department of Health has identified two facilities capable of treating EVD patients, UVA Medical Center and VCU Medical Center. Due to their distance from our region, it is unlikely that local patients will be transported to these facilities.

The Southwest Virginia EMS Council has contacted both major health systems to determine appropriate transport locations in respect to their own internal planning processes. At the time of publishing,

requested information has not been received. It is presumed that suspected EVD patients will be transported to the closest emergency department for evaluation. Local facilities will arrange for interfacility transport. As hospital policies are relayed, this plan will be modified to reflect the needs of our regional healthcare facilities.

B. Transport Agencies

The Virginia Department of Health has asked the Council identify EMS transport agencies within our region who meet both training and PPE requirements who are willing to care for and transport EVD patients within our region and perhaps to facilities within the state. These two transport agencies who have verified requirements and who have been identified by the VDH are:

Washington County Lifesaving Crew, Abingdon, VA

Abingdon Ambulance Service, Abingdon, VA

If any other agency is interested in being added to this list, please contact the Council office. Agencies must verify their readiness through both training and availability of recommended PPE. Contact information will be provided to the Virginia Office of Emergency Medical Services to be shared with the Virginia Department of Health.

VI. Other Sources of Information

Please continue to visit the Office of EMS website (www.vdh.virginia.gov/oems/EO/Ebola) or the Virginia Department of Health website (http://www.vdh.virginia.gov/epidemiology/ebola/HealthCare.htm) for additional information related to Ebola.

Approved 11/13/14