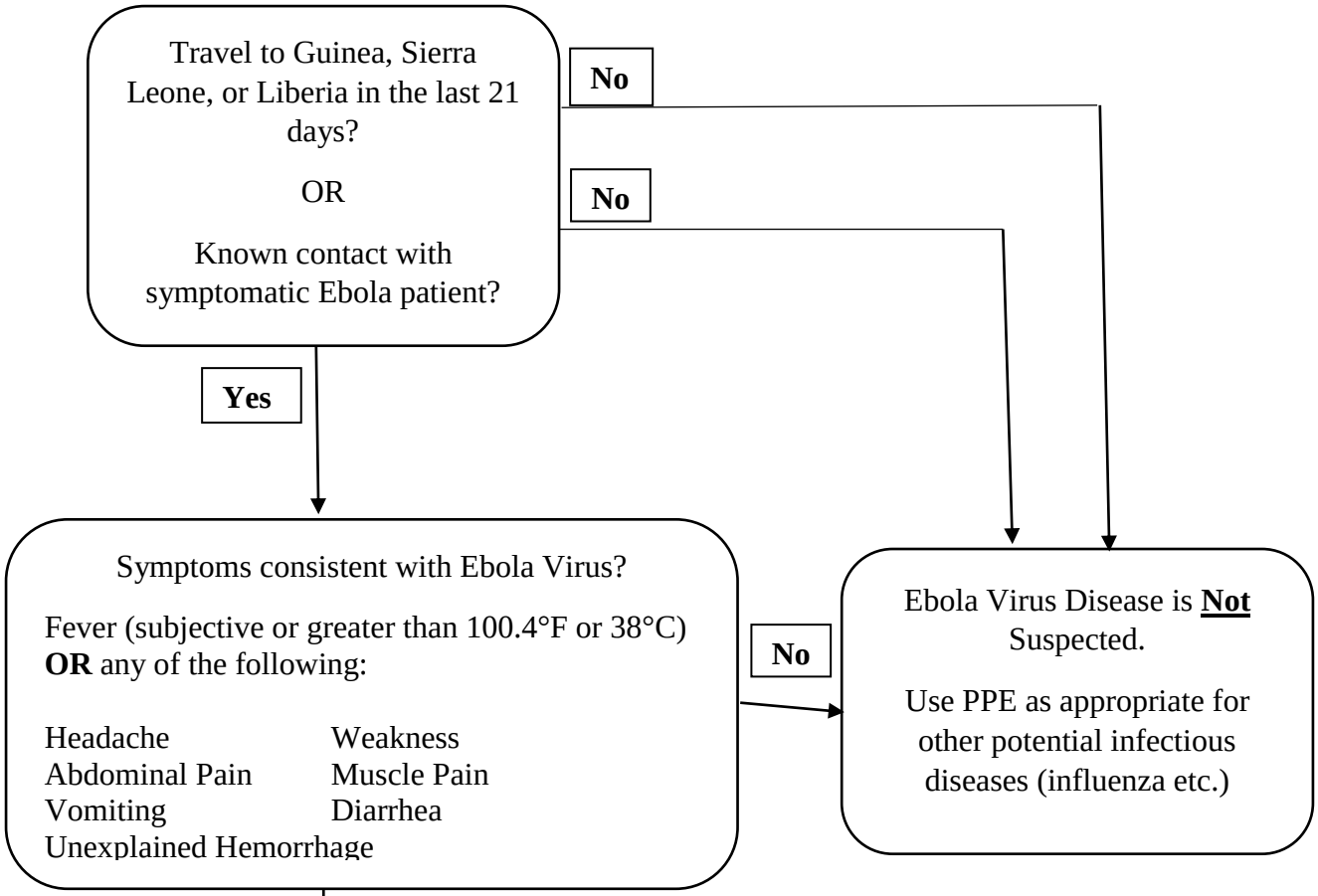
Table of Contents

IMPORTANT CONTACT INFORMATION

Centers for Disease Control	www.cdc.gov	1-800-CDC-INFO (1-800-232-4636)
Loudoun County Health Department	health@loudoun.gov	703-737-8300
LCCFR Information	LCFRInfo@loudoun.gov	571-258-3696

CURRENT EBOLA GUIDELINES

Appropriate standard precautions shall be used by all personnel responding to any patient



Suspected/Potential Ebola case

Minimum Personal Protective Equipment (PPE) for possible Ebola patients shall include:
Gloves
Gown (fluid resistant or impermeable)
Eye Protection (goggles or face shield that fully covers front and sides of the face)
Facemask

Notify:
Infection Control Officer (EMS Supervisor)
Medical Control Physician (Prior to Transport)
Consider Hazmat response/support

Effective 10/17/2014

MESSAGE FROM THE OPERATIONAL MEDICAL DIRECTOR

October 17, 2014

To: System Operational Members

I would like to provide an update on the current status of our local Ebola readiness efforts. As you are aware, there have been 2 ICU nurses diagnosed with Ebola in Dallas, TX. We have also had the first Loudoun County incident requiring an EMS response for a "rule-out" Ebola patient. Let me assure you we are well prepared for this evolving situation. We are working to further refine our processes and incorporate new information as it becomes available. This is being done in a measured, well thought out manner based on sound medical practices and the best available evidence.

The Ebola Field Response Reference issued October 3 is no longer in effect and should be discarded. The new revised reference effective October 17 has been updated to reflect current best practices and official guidelines. Specifically, the screening criteria have been modified to include symptoms of lower grade/subjective fever, and the new symptom of "weakness". The screening criteria have also been modified to fever OR symptoms instead of fever AND symptoms. The current "outbreak" countries of Guinea, Sierra Leone, or Liberia are listed for screening 21-day travel history (Nigeria is not currently an outbreak country and was removed). Also, known contact with a symptomatic Ebola patient has been added as a screening question. Please note this is not simply contact with well or unknown status persons who have travelled to outbreak countries. I will provide updates if additional countries are added to the list as "outbreak" areas. The following CDC link is an excellent source for the most current information on countries with widespread transmission.

http://www.cdc.gov/vhf/ebola/outbreaks/2014-west-africa/distribution-map.html

To be clear, patients must be sick with Ebola to be contagious and Ebola is only spread by contact with infected body fluids. I would like to point out that in Dallas, dozens of unprotected and minimally protected individuals came into contact with the initial patient. This includes family members in close contact with no PPE while he was very symptomatic. To date, none of those initial contacts has become ill. The transmissions have only occurred with ICU nurses who had extensive close contact in the late stages of the illness when there were copious fluids present and higher "viral loads" in the infectious fluids. This fact should provide some measure of reassurance as we go about our jobs of managing our likely encounters with early stage "rule-outs". With that said, we should remain cautious in our approach and meticulous in our PPE technique to enhance our safety.

The EMS supervisors are serving as a 24-7 system wide resource on this situation and should be involved with any potential/suspected cases. They are able to contact myself and the health department directly to provide further support as needed. Hospital medical control is also available 24-7 to discuss management questions.

Thank you for continued attention to this important subject.

John I. Morgan, M.D.
Operational Medical Director

MESSAGE FROM THE SYSTEM CHIEF

DATE: October 17, 2014

TO: Membership, Loudoun County Combined Fire and Rescue System

FROM: W. Keith Brower, Jr., System Fire and Rescue Chief

SUBJECT: Ebola Response Planning and Preparation

Over the past several months, the global Ebola situation has become the focal point of our thoughts and discussions. I am sure that you have a lot of questions regarding this topic and how our System is prepared, and preparing, to handle this virus if it should present itself in Loudoun County. I want you to know that we are taking this situation very seriously and are taking a proactive stance to ensure that we are ready in the event an emergency occurs.
We are working with other agencies in the County, as well as our regional partners, to develop and formalize our response plans. We have already disseminated information from Dr. Morgan and the Training Division. Going forward, I have directed Senior Staff to create, and participate in, the working groups necessary to refine these plans. I can assure you that these groups are working diligently to ensure our procedures are consistent with federal guidelines and protect your health and well-being. Further information about the System's coordinated response to Ebola will be forthcoming.

It is important to remember that this is a dynamic event; as the situation changes, so will our response procedures. As policies and procedures are updated, we will get the information to you quickly. Please take the time to review and understand this information as it is released.

Please use common sense and be mindful of the information you post on social media. Disseminating unconfirmed, unauthenticated information only adds to the confusion in the community.

Should you receive questions from the public regarding Ebola, the most up-to-date information about Ebola is available from the Centers for Disease Control at www.cdc.gov or by calling 1- 800-CDC-INFO (800-232-4636). Questions can also be directed to the Loudoun County Health Department at 703-737-8300 or by email at health@loudoun.gov. Questions pertaining to the System's preparations for Ebola should be directed to Mary Maguire, Public Affairs Officer, at 703-777-0333 or mary.maguire@loudoun.gov.

Finally, I expect each of you to do your part and continue to provide the highest quality care to the citizens of and visitors to our County, regardless of their symptoms. You have an obligation to educate yourself and, if the situation arises, protect yourself with the equipment and means provided to you. Feel free to contact the on-duty EMS Supervisor or Staff Duty Officer for further direction.

Thank you for your service and patience through this new chapter of our System.

EMERGENCY COMMUNICATIONS CENTER

	Loudoun County **Department of Fire, Rescue, and Emergency Management** **Communications and Support Services** **General Order**	
Subject: EMD Card 26 – Sick Person	**Date of Issue: October 23, 2014** **Date of Expiration: Until Rescinded**	
General Order: LCFR Communications and Support Services Division General Order 2014-012		
Approved: *Patricia Turner* **Patricia L. Turner, ECC Manager**		

Rescind Communications GO 2014-011.

PURPOSE

Enhance the safety measures when dealing with potential Ebola-infected patients.

SCOPE

This General Order applies to Communications personnel employed by the Loudoun County Department of Fire, Rescue, and Emergency Management.

POLICY

A. When using the 26 – Sick Person card, after completing the standard questions (case entry and key questions) call-takers shall ask the following additional questions PRIOR to PAI and PDI.

   a. Has the patient travelled in the past 21 days to any country in West Africa (currently including the countries of Guinea, Sierra Leone, or Liberia).
   b. If the answer to the travel question is yes, call-takers shall ask if the patient has symptoms of fever (100.4 F or 38 C)/chills and/or any of the following additional symptoms: headache, muscle pain, vomiting, diarrhea, abdominal pain, or unexplained bleeding.

B. If a patient states that, they have both travel history and clinical symptoms as outlined above, responding units shall be notified immediately. Responding units shall be informed,

   a. "The patient has travel history and symptoms that require use of contact and droplet PPE".
   b. The word "Ebola" shall not be used in communications with responding or on-scene units. If communication of the situation is required, use the phrase, "possible infectious risk".

C. The EMS Supervisor shall be added on to any incident where the caller/patient meets the travel history and clinical symptoms.

D. If a unit is on scene of an incident and believes they have a patient that meets the criteria, the EMS Supervisor shall be dispatched to make the final transport decision.

E. The EMS Supervisor is to continue to all calls where the patient meets criteria regardless of being placed in service; they are the decision maker on how these calls shall be handled.

F. The EMS Supervisor or a command officer at the rank of Battalion Chief or higher are the only people authorized to escalate the call to the use of the Hazardous Materials Response Team (HMRT).

G. If the call is escalated to the level of HMRT use, you shall notify the Office of Emergency Management so they may make contact with the Health Department.

H. Notify the Staff Duty Officer.

EVALUATION OF THE PATIENT

Currently Loudoun County is using a numbering system for classification of potential Ebola patients, based on the severity of symptoms. This system is in place to guide the appropriate level response to a potential Ebola patient. The EMS Supervisor or a command officer at the rank of Battalion Chief or higher are tasked with making the decision regarding the appropriate level of response for a specific patient. This will guide further actions taken including types of protection providers will don, how to decontaminate providers, their apparatus, and their equipment. All interventions will be limited to BLS level, unless absolutely necessary and at the direction of the above decision makers and Medical Control. If ALS interventions are necessary, they should not include any IV or IO access, IM or SQ injections, or use of nebulizer unless specifically directed to do so.

The first level of patient that we are preparing to encounter is a Level 1. This patient does not meet any criteria for Ebola response, but does potentially have another infectious disease (influenza, norovirus, etc.). This would include individuals with:

- Symptoms of illness but no travel history to an area with widespread Ebola transmission nor known contact with a symptomatic Ebola patient.
- No symptoms but known travel to an area with widespread transmission or known contact with an Ebola patient.

These patients can be handled with standard (universal) precautions plus additional PPE as appropriate for typical infectious disease protection. Consultation with medical control or EMS supervisor/BC may be considered as needed.

For Level 2 and above patients, the EMS Supervisor or a command officer at the rank of Battalion Chief or higher shall be added to the call if not already responding. Providers shall be proactive in adding these personnel, as they will provide additional expertise and resources for higher level Ebola response.

Level 2 patients have symptoms consistent with possible Ebola Virus Disease AND known travel to an area with widespread Ebola transmission or known contact with a symptomatic Ebola patient. These patients are further categorized as follows:

- The Level 2a patient meets criteria consistent with Ebola Virus Disease but has only developed a low grade or subjective fever (less than 100.4^{o}F/38^{o}C) or minor signs and symptoms (i.e. headache, weakness, abdominal pain, or muscle pain). Generally, these patients shall be placed in a mask and providers shall use full contact and droplet precautions throughout the incident. Hazmat response may be considered at the discretion of the EMS supervisor, Battalion Chief or other command level officer.
- A Level 2b patient has begun to develop more severe signs and symptoms including fever of 100.4^{o}F/38^{o}C or above, vomiting, diarrhea, profuse sweating or unexplained hemorrhage. This patient will be treated and transported by a Hazardous Materials Response Team due to their capability for higher-level personal protective equipment.

Level 3 patients have moved into the later stages of Ebola. In addition to more severe degrees of the Level 2b signs and symptoms, they may have an altered level of consciousness, inability to walk on their own, and shall be isolated from time of encounter throughout treatment and transport to the hospital by use of a Hazardous Materials Response Team's ISO-POD™.

In the event that a unit encounters a Level 2a or above patient that was not identified through dispatch screening, they are to retreat to their apparatus, don the PPE equipment provided for the Level 2a provider and request dispatch of an EMS Supervisor (if unavailable, a command officer at the rank of Battalion Chief or higher is next most appropriate person). In cases where the AIC suspects the patient is a Level 2b or Level 3, the AIC should contact the responding EMS Supervisor prior to additional patient contact. Isolate the patient from bystanders until the arrival of HMRT; deny entry to any providers except the EMS Supervisor or a command officer at the rank of Battalion Chief or higher, and HMRT. Upon arrival to the scene, the officer will assist the crew in proper decontamination and medical follow-up as deemed appropriate.

Regardless of the level of patient that is identified, procedures are in place to provide our personnel the appropriate level of protection for the patient they encounter. Guidelines have been created with the best interest of the providers in mind when it comes to making decisions on PPE and decontamination.

This is an ever-changing and dynamic event with new information and guidelines expected. Changes shall continue to be communicated to the field as soon as appropriate.

The directives set forth in these documents are specific to an Ebola response but providers will generally benefit from proper PPE techniques in many other infectious disease scenarios they will encounter such as influenza, enterovirus, norovirus etc. Always take the time to use appropriate standard precautions and cleaning/decontamination procedures with any patient you contact.

It is possible that EMS will encounter, treat, and transport an infected patient without initially identifying them as "meeting criteria". In the event of this, the EMS Supervisor will be notified and conduct an investigation to best determine the level of exposure the providers encountered. The EMS Supervisor will consult when necessary with the Infection Control Officer and the office of Health and Safety to determine the best course of action.

PERSONAL PROTECTIVE EQUIPMENT

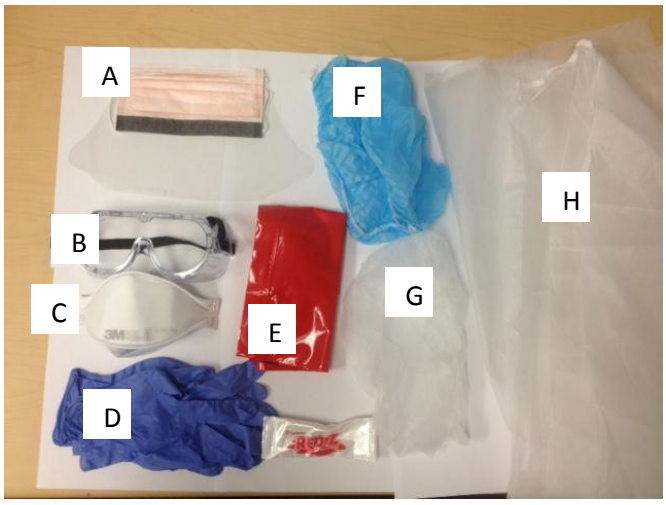
Level 1 Patients-

If symptoms consistent with an infectious disease are present, these patients should be handled with appropriate contact and droplet precautions (despite not being suspected of having Ebola). The provider should outfit the symptomatic patient with a NRB or surgical mask as appropriate. The provider shall use standard (universal) precautions plus additional protection against contact/droplet exposure. These measures will reduce the chance of transmission of more common illnesses and protect the provider, their crew, their family and their patients.

Level 2a Patients-

Personal Protective Equipment Kits for each unit contain the following:

A- 1 each Fluid Resistant Mask with Face shield
B- 1 pair Splash Resistant Goggles
C- 1 each N95 Particulate Respirator
D- 4 each Nitrile Gloves, 12 inch, size Large (over the wrist glove)
E- 1 each Latex-Free Lock-Top Biohazard Bag, 5Gallon
F- 2 each Non-Conductive Fluid-Repellant Shoe Cover with Elastic
G- 1 each Hair Cover with Elastic Band, 19 inch
H- 1 each Impervious Barrier Gown, White



These are for providers to don prior to coming into contact with a patient, or as soon as deemed necessary. The patient shall also wear a NRB or surgical mask.

Providers shall remain alert to the potential for a patient to become ill during their assessment/transport. If vomiting occurs, HMRT activation and escalation of protection level is advised.

Level 2b Patients-

Non-HMRT Personnel:

Isolate the patient from bystanders until the arrival of HMRT, deny entry to any providers except the EMS Supervisor or a command officer at the rank of Battalion Chief or higher and HMRT

Hazardous Materials Response Team (HMRT) shall dress the patient in the following:

Tyvek non-porous coverall type suit

N95 Particulate Respirator or Surgical Mask

Medical Gloves (ensuring they are overlapped with elastic wrists of gown)

Disposable rubber booties

The HMRT shall ensure no skin exposure and don:

Tyvek non-porous coverall type suit or Zytron 300

Scott AV2000 face piece

Respirator with Enforcer or P100 cartridge

Tingley Boots

2 medical gloves, an inner and outer glove

Level 3 Patients-

Non-HMRT Personnel:

Isolate the patient from bystanders until the arrival of HMRT; deny entry to any providers except EMS Supervisor and/or a Battalion Chief, and HMRT

The HMRT shall place the patient into the ISO-POD™.

The HMRT shall ensure no skin exposure and don:

Zytron 300 Suit

Scott AV2000 face piece

PAPR with Enforcer or P100 cartridge

Outer medical glove over Zytron suit glove

Tingley Boots

AMBULANCE PREPARATION

Level 1 and Level 2a patients generally should require no ambulance preparation prior to transport as they are considered low risk.

Level 2b and Level 3 patients should be transported using units from FS19 or FS10. These stations have pre-cut plastic sheeting and Chem-tape ready for this level of preparation as well as personnel trained in the use of the level of PPE required.

Consideration should be given to removing of all non-essential equipment from the back of the ambulance and be placed in an alternate vehicle. The passage between the patient compartment and the driver's compartment shall be closed off with doors or windows already in place (when available) then will have additional protection with the plastic lining. A plastic impermeable sheeting (similar to that used for overhaul) shall be taped using Chem-tape to the ceiling up to the level of the grab bars, the vent shall be turned on. The plastic sheeting shall also be secured to the floor with Chem-tape. If more than one sheet needs to be used, the overlap needs to be a minimum of 2 inches and these seams need to be sealed with Chem-tape. The only opening shall be at rear of ambulance to allow for removal of patient and providers at the receiving facility. This opening shall be accomplished with an overlap of plastic sheeting (at least 6 inches) that can be pulled up and away, similar to a curtain on a window. The cot mattress shall be wrapped in plastic so no visible openings exist.

HOSPITAL TURNOVER OF PATIENT CARE

INOVA Loudoun Hospital (Lansdowne) and Reston Hospital Center are the receiving facilities ready and capable of handling a patient that meets criteria for Level 2a, 2b, and 3. Preferably, all units in Loudoun County, including those located in Sterling, shall transport patients meeting the criteria to INOVA Lansdowne, with Reston as a back-up or secondary hospital. The EMS Supervisor or a command officer at the rank of Battalion Chief or higher will make this decision for the transporting unit/providers on scene.

It is imperative that units transporting Level 2a or above patients contact the receiving facility as early as possible. If a unit is on scene awaiting the response of transport units from stations 19 or 10, they shall make contact with Medical Control to discuss initial findings. This early notification will allow the receiving facility to make the necessary preparations for each level of patient.

The EMS Supervisor or a command officer at the rank of Battalion Chief or higher will determine the need for additional resources at the receiving facility. Should additional units be required, Engine 610 with Utility 610 are the designated units to assist with decontamination. This decision shall be made dependent on level of exposure, number of patients or contaminated bystanders, and need for additional personnel to effectively carry out tasks.

Typically speaking, unless otherwise directed by Medical Control, the hospital staff who will be taking over patient care will meet the transport unit outside. This will be dictated by Medical Control and relayed to the unit. Upon arrival, make contact with the receiving team, transfer patient care, and follow doffing and decontamination procedures.

NOTE: Patients in the care of The Metropolitan Washington Airport Authority (MWAA) will have destination determined in coordination with MWAA leadership.

HAZARDOUS MATERIALS RESPONSE TEAM (HMRT)

The HMRT and personnel assigned to Lucketts Fire Station 610 are tasked with managing patients identified to meet criteria for possibly being ill with the Ebola virus. The patients we will be responsible for all those that meet criteria for exposure (travel to area with widespread Ebola transmission or known contact with a symptomatic Ebola patient) , have a fever or numerous signs and symptoms-including vomiting, diarrhea, and/or unexplained hemorrhaging (Level 2b and Level 3). However, any patient may end up being transported by the HMRT (or ambulance 610) if the unit on scene is not comfortable with their role in the call. Be sure you are familiar with procedures for all levels of patient presentation and always use an abundance of caution in interaction with patients who meet criteria.

Personnel at both Dulles South Fire Station 619 and Lucketts Fire Station 610 will take a full set of vitals on all personnel each morning upon arrival at 0600. Please use rehab forms to document vitals and the officer will keep them on their apparatus for the duration of their shift.

Every aspect of current recommendations and procedures set forth from the CDC, the medical director, and other EMS agencies have been researched and reviewed by numerous staff members of LCFR. All of the guidelines here are above and beyond what is currently recommended for pre-hospital and providers should realize their best interest, along with their families, are a top priority when outlining procedures. Please do not hesitate to communicate concerns through the chain of command as appropriate.

Lastly, before outlining the expectations and procedures of the HMRT, please remember that out of all the family members and medical staff that came into contact with the now deceased patient in Dallas, TX only two ICU nurses became ill with the virus. This includes the ER staff that sent the patient home initially, family members in the same living quarters, and the EMS crew that transported the patient to the hospital when he was vomiting. The ICU nurses were instrumental in improving guidelines for personal protection equipment both pre-hospital and in hospital. These nurses were responsible for caring for the patient in close quarters and very late stages of the illness, handling invasive procedures.

It has been approved that ALS treatment not be initiated unless absolutely needed and directed by The EMS Supervisor or a command officer at the rank of Battalion Chief or higher after consulting with Medical Control. Limiting invasive procedures will limit the possibility for undue exposure.

Level 2b Patients-

Ensuring the buddy system is used and that PPE is covering all skin and respiratory equipment is on correctly.

PPE:

- Tyvek Suit or Zytron 300
- AV2000 Face piece
- Respirator with Enforcer or p100 filter
- Tingley Boots
- Inner medical glove under the elastic wrist (not to be removed until decon)
- Outer medical glove over the elastic wrist (this can be replaced as need as soiled)

Response:

EMS Supervisor or a command officer at the rank of Battalion Chief or higher
Hazmat 619 with 3 Hazmat Technicians
Medic 619 with 2 Hazmat Technicians (If ALS provider is not a tech, no substitution is needed)

OR if 619 is unavailable:

Engine 610 with 3 personnel
Ambulance 610 with 2 personnel

Prior to arrival at the incident scene, the Hazmat unit and Medic unit (or Engine 610 and Ambulance 610) will stop at the first due fire or rescue station to the call to prepare the ambulance per specifications. For example, if the call is in Round Hill, units may stop at FS604 to prepare the Ambulance, get dressed in their suits, and put the bucket Hazmat Tech in the Ambulance. Hazmat 619 with 2 will then proceed to the receiving facility to prepare for arrival of the unit, personnel, and patient. The Ambulance with crew of 3 (driver not dressed out and 2 personnel in suits) will arrive on scene, make contact with the patient, and prepare the patient in:

Tyvek non-porous coverall type suit
N95 Particulate Respirator
Disposable rubber booties

Once the patient is properly dressed, the patient will be moved to the ambulance and transport may begin. Of the two providers in the rear of the ambulance, one is to interact with the patient while the other is located in the captain's chair as an observer. The observer is responsible for continually watching the care provider to ensure there is no breach of PPE and will serve as a back-up provider in the event the primary care provider has an issue of some sort.

Early contact with Medical Control is imperative, as the EMS Supervisor or a command officer at the rank of Battalion Chief or higher with Medical Control will decide the receiving facility. The local facilities equipped to handle the patient are Inova Loudoun Hospital (Lansdowne) and Reston Hospital Center. Upon arrival at the hospital, the driver of the ambulance will remain in the driver's seat until the patient has exited the ambulance with the 2 providers in PPE, they will then move the ambulance to the designated location communicated at the hospital, exit the vehicle with the keys, lock the unit and remain away from the 'dirty' scene unless advised to don PPE and assist with decontamination.

After the patient care has been turned over to hospital personnel, the 2 providers will wipe down their suits with Oxivir® TB wipes for a period no less than 1 minute. Then the provider will place their respiratory equipment and Tingley boots into a red bag that will be double bagged and zip tied by the decontamination assistant. The providers will then place their suits and gloves into a second red bag, have that double bagged and zip tied by the assistant. Then the provider may enter the shower area to remove uniform, bath in soap and water twice and redress in their clothing located in their Go Bag. The provider will return to the station, wash the uniform at the station and redress in uniform as able.

The two red bags with gear and the ambulance will remain at the hospital for 24 hours until a determination on the patient's condition is made.

If the patient is negative:

Red bag 1 with respirator equipment and boots will return to FS619
Red bag 2 with PPE will be disposed of in normal waste procedures
Ambulance will be decontaminated with bleach and placed back in service

If the patient is positive:

Red bag 1 with respirator equipment will be cleaned as directed
Red bag 2 with PPE will be disposed of by the hospital with the vendor as appropriate
The ambulance will be cleaned by 2 personnel in a tyvek suit, N95, and goggles with 10:1 bleach solution, then Oxivir® TB Spray (must stay on surface for a minimum of 1 minute prior to wiping away) then a 10:1 bleach solution and allowed to dry completely before being placed back in service.

Further information regarding ongoing medical attention for providers of a positive patient will be relayed immediately upon receiving the testing results.

Level 3 Patients-

Ensuring the buddy system is used and that PPE is covering all skin and respiratory equipment is on correctly.

PPE:

Zytron 300
AV2000 Face piece
PAPR with Enforcer or P100 filter
Tingley Boots
Outer medical glove over attached suit glove (this can be replaced as need as soiled)

Response:

EMS Supervisor or a command officer at the rank of Battalion Chief or higher
Hazmat 619 with 3 Hazmat Technicians
Tower 619 with 4 Personnel (preferably Hazmat Technicians)
Medic 619 with 2 Hazmat Technicians (If ALS provider is not a tech, no substitution is needed)

OR Some combination of:

Hazmat 619 with 3 Hazmat Technicians
Tower 619 with 4 Personnel (preferably Hazmat Technicians)
Ambulance 610
Engine 610

Upon arrival on scene, procedures for preparing patient and placing them into the ISO-POD™ shall be followed (See ISO-POD™ job aid and HMPP). A maximum of 2 providers shall accompany the patient in the ambulance for transport to the hospital and assist with care.

Early contact with Medical Control is imperative, as the EMS Supervisor or a command officer at the rank of Battalion Chief or higher with Medical Control (keeping in mind that the facilities equipped to handle the patient are Inova Lansdowne and Reston Hospital Center) will decide the receiving facility. Upon arrival at the hospital, the driver of the ambulance will remain in the driver's seat until the patient has exited the ambulance with the 2 providers in PPE, they will then move the ambulance to the designated location communicated at the hospital, exit the vehicle with the keys and lock the unit. Once the initial 2 providers turn over care to the hospital staff, they will do an initial decon by wiping down their suits with Oxivir® TB Wipes for a minimum of 1 minute. Then the provider will place their respiratory equipment and Tingley boots into a red bag that will be double bagged and zip tied by the decontamination assistant. The providers will then place their suits and gloves into a second red bag, have that double bagged and zip tied by the assistant. Then the provider may enter the shower area to remove uniform, bath in soap and water twice and redress in their clothing located in their Go Bag. The providers may have to redress into a clean set of gear to continue supporting the hospital while the patient remains in the ISO-POD™. The operational length will be determined based on the needs of the patient, hospital staff, and the HMRT procedures. Each time providers doff their PPE they shall follow the same procedures to ensure minimal to no contamination.

The two red bags with gear and the ambulance will remain at the hospital for 24 hours until a determination on the patient's condition is made.

If the patient is negative:

Red bag 1 with respirator equipment and boots will return to FS619

Red bag 2 with PPE will be disposed of in normal waste procedures

Ambulance will be decontaminated with bleach and placed back in service

If the patient is positive:

Red bag 1 with respirator equipment will be cleaned as directed

Red bag 2 with PPE will be disposed of by the hospital with the vendor as appropriate

The ambulance will be cleaned by 2 personnel in a tyvek suit, N95, and goggles with 10:1 bleach solution, then Oxivir® TB Spray (must stay on surface for a minimum of 1 minute prior to wiping away) then a 10:1 bleach solution and allowed to dry completely before being placed back in service.

Further information regarding ongoing medical attention for providers of a positive patient will be relayed immediately upon receiving the testing results.

The providers shall practice donning and doffing PPE appropriately to limit exposure, as well as dressing a person in PPE and skills sheets for the ISO-POD™ monthly until told otherwise through the chain of command.

DONNING, DOFFING, & DECONTAMINATION

Donning PPE–Use a trained observer to verify successful compliance with the protocol.

1. **Engage Trained Observer**: The donning process is conducted under the guidance and supervision of a trained observer (EMS Supervisor or Battalion Chief) who confirms visually that all PPE is donned successfully.
2. **Remove Personal Items**: No personal items (e.g., watches, jewelry, cell phones, pagers, pens) should be with the provider while the provider is caring for this patient.
3. **Put on Inner Gloves**: Put on first pair of gloves.
4. **Put on Shoe Covers.**
5. **Put on Gown.** Put on gown. Ensure gown is large enough to allow unrestricted freedom of movement, if not then a provider that fits the PPE properly shall replace this provider. Ensure cuffs of inner gloves are tucked under the sleeve of the gown.
6. **Put on N95 Respirator**: Put on N95 respirator. Complete a user seal check.
7. **Put on Outer Gloves**: Put on second pair of gloves (with extended cuffs). Ensure the cuffs are pulled over the sleeves of the gown.
8. **Put on Goggles**: Put on goggles to provide additional protection to the eyes.
9. **Put on Head/Hair Cover**: Ensure that the cover is over ears and hair is contained within.
10. **Verify**: After completing the donning process, the integrity of the ensemble is verified by the trained observer. The healthcare worker should be comfortable and able to extend the arms.

Taken directly from current CDC recommendations October 23, 2014

Doffing PPE– PPE doffing is performed in the designated PPE removal area at the receiving facility. Place all PPE waste in double biohazard red bags with zip tied closure.

1. **Engage Trained Observer**: The doffing process is conducted under the supervision of a trained observer (EMS Supervisor, Battalion Chief, Hospital Employee Designee, or decontamination team). Prior to doffing PPE, the trained observer must remind healthcare workers to avoid reflexive actions that may put them at risk, such as touching their face. Although the trained observer should minimize touching provider or their PPE during the doffing process, the trained observer may assist with removal of specific components of PPE as needed.
2. **Inspect**: Inspect the PPE to assess for visible contamination, cuts, or tears before starting to remove. If any PPE is visibly contaminated, then disinfect using an EPA-registered disinfectant wipe. If the facility conditions permit and appropriate regulations are followed, an EPA-registered disinfectant spray can be used, particularly on contaminated areas.
3. **Disinfect Outer Gloves**: Disinfect outer-gloved hands with either an EPA-registered disinfectant.
4. **Remove Boot Covers**: While sitting down, remove and discard boot covers.
5. **Remove Outer Gloves**: Disinfect outer-gloved hands with an EPA-registered disinfectant wipe. Remove and discard outer gloves taking care not to contaminate inner gloves during removal process.
6. **Remove Head Cover**: Touching only the outside of the head cover, pull off in an upward motion to ensure the outside does not come into contact with exposed skin.
7. **Remove Goggles**: Touching only the outside of the eyeglass portion of the goggle, pull up and away from head to ensure the outside of the goggles do not come into contact with skin.
8. **Remove Gown**: Remove and discard. Gently break fasteners. Avoid contact of uniform with outer surface of gown during removal. Pull gown away from body, rolling inside out and touching only the inside of the gown.
9. **Inspect and Disinfect Inner Gloves**: Inspect the inner gloves' outer surfaces for visible contamination, cuts, or tears. If an inner glove is visibly soiled, cut, or torn, then disinfect the glove with either an EPA-registered disinfectant wipe. Then remove the inner gloves, perform hand hygiene with soap and water on bare hands. If no visible contamination, cuts, or tears are identified on the inner gloves, perform hand hygiene with soap and water on bare hands.
10. **Remove N95 Respirator**: Remove the N95 respirator by tilting the head slightly forward, grasping first the bottom tie or elastic strap, then the top tie or elastic strap, and remove without touching the front of the N95 respirator. Discard N95 respirator.
11. **Disinfect Shoes**: Sitting on a new clean surface use 10:1 bleach/water solution to wipe down every external surface of shoes.

12. **Inspect Provider Again**: Perform a final inspection of healthcare worker for any indication of contamination of uniform. If contamination is identified, immediately inform infection control officer.
13. **Shower and Laundry**: Showers are recommended at each shift's end for providers prior to going home to family. Preferably and whenever possible the provider's uniform will be washed at the station prior to being taken home.

<u>*Taken directly from current CDC recommendations October 23, 2014*</u>

Decontamination-

Personnel-

1. Personnel, upon reaching the receiving facility and turning over patient care shall doff their PPE appropriately and immediately wash their hands with soap and water, then a 10:1 bleach and water solution, and soap and water again.
2. If uniforms and/or undergarments are contaminated with the patient's bodily fluids shall be removed and disposed of in the same fashion as used PPE at the receiving facility. Then the provider shall shower with soap and water twice.
3. If uniforms and/or undergarments are not contaminated, the provider shall return to the station with approval from the EMS Supervisor or a command officer at the rank of Battalion Chief or higher, however, they will shower prior to leaving the station at the end of shift.
4. Laundering of uniforms and undergarments not contaminated shall be completed at the fire station, do not take uniforms home for cleaning. A clean uniform shall be available upon return to the fire or rescue station or a change of clean clothes to wear home.

Apparatus-

1. If the patient does not meet criteria for Ebola, or they present with only a fever but do meet the criteria, the unit shall be cleaned thoroughly with a 10:1 bleach and water (1 gallon of water with 12.5 ounces of household bleach) solution. This can be completed wearing gloves and a surgical mask.
2. If the patient tests positive for Ebola (after 24-hour waiting period) the unit shall be cleaned using first, the 10:1 bleach and water solution, then an EPA-registered hospital disinfectant that is approved for use with norovirus, rotavirus, adenovirus, and poliovirus as these viruses share technical similarities to Ebola. Follow manufacturer's instructions for use of this disinfectant. These procedures shall be completed wearing a non-porous Tyvek suit, N95 mask, goggles or face shield, and two pairs of disposable gloves.

Equipment-

1. Contaminated reusable patient care equipment shall be placed in biohazard bags and labeled for cleaning and disinfection (this shall remain at the receiving facility in the rear of the effected ambulance for 24-hour waiting period prior to cleaning). This equipment shall be decontaminated utilizing a disinfectant matching the requirements above.

All linens and disposable patient care equipment shall be double-bagged utilizing biohazard bags. These bags shall be marked to indicate their contents and disposed of in a medical waste container at the receiving facility; this will be under the direction of hospital employees.