



Infectious Disease Response Plan – Wake County EMS (Updated October 22, 2014)

Purpose: this plan will identify the resources required and specific roles for the EMS response to a known or suspected patient with an infectious disease or hemorrhagic fever, such as Ebola. The particulars of this plan are based on the latest guidance from the Centers for Disease Control and the Wake County EMS System Medical Director. All patients that fall under this plan will be transported to a Rex Healthcare or WakeMed New Bern Ave unless another destination is specifically approved. The only established destination arrangement is that all patients from RDU International Airport will be transported to Wake Medical Center (3000 New Bern Avenue). Any incident dispatched based, or with the intention of using this procedure, will be coded within Emergency Medical Dispatch as a 26-Alpha-99.

Implementation of this plan will occur for any of the following situations:

- Preidentified patient by Wake County Public Health requires transportation;
- 911 caller identifies that the patient has a travel history of being in Africa and presents with a subjective or documented temperature above their normal and additional symptoms such as severe headache, muscle pain, vomiting, diarrhea, abdominal pain, or unexplained hemorrhage;
- RDU Airport advises they have a patient with a travel history of being in Africa and presents with a subjective or documented temperature above their normal and additional symptoms such as severe headache, muscle pain, vomiting, diarrhea, abdominal pain, or unexplained hemorrhage;
- EMS arrives on a scene and identifies that they have a patient with a travel history of being in Africa and presents with a subjective or documented temperature above their normal and additional symptoms such as severe headache, muscle pain, vomiting, diarrhea, abdominal pain, or unexplained hemorrhage;

Resources Required:

- 3 Wake County EMS Division ambulances
- 1 Wake County EMS Division ambulance (if required for manpower to move the patient only)
- 1 Wake County EMS Division District Chief
- Notification/response of EMS Administration/Medical Director
- Appropriate Tyvek outfit, including chemical boots, gloves, goggles, Chem Tape, and PAPR/N95 mask for all personnel assigned to the EMS Division ambulances
- Plastic sheeting and duct tape for isolating the interior of the ambulance

General Tasks:

Primary Ambulance (Crew 1): will be responsible for patient transfer from location to hospital and any required medical interventions from arrival at scene until properly transferred to receiving facility

Secondary Ambulance (Crew 2): will be responsible for the operation of the primary ambulance to the receiving facility and the decontamination of this unit

Third Ambulance (Crew 3): will be responsible for initiating the process of draping the interior of the first ambulance and with overseeing the donning of PPE for the secondary ambulance crew

Manpower Ambulance (Crew 4): only if needed, will be responsible for assisting the Primary Ambulance crew with patient transfer from location to hospital and any required medical interventions from arrival at scene until properly transferred to receiving facility

District Chief: will be responsible for appropriate notifications and overseeing the entire process to ensure complete compliance with this directive

Process Flow:

1. Request for EMS assistance and the implementation of this plan based on the scenarios above, utilizing the 26-Alpha-99 determinant. If neither District 1 nor District 4 is recommended for dispatch, the dispatched District Chief should request that the closest of them be added to the call as these vehicles contain the specialized PPE caches.
2. The District Chief will make EMS Administration notifications while enroute to the scene. The District Chief should first attempt to call the Chief of Operations. If unable to reach, the District Chief will call the EMS Director.
3. While enroute, the District Chief should attempt to make contact with the patient and/or caller to 9-1-1 by telephone to determine as many details of travel history and symptoms as possible. The 9-1-1 Center will have the caller on the phone until EMS arrives on the scene. The DC, after a brief Admin notification, should advise the telecommunicator on DISP_1 to call the DC cell phone in order to connect the DC with the caller. 9-1-1 will have the list of phone numbers for reference. In the majority of cases, the Ebola risk can be determined by verbal interview alone and thus the need for the full PPE described below reserved only for those rare cases where the risk cannot be cleared by interview alone. Questions to ask should include:
 - a. Has there been travel for the patient outside the US in the last 21 days; if so, determine a detailed timeline including where and did they come in contact with known sick persons (as the CDC defined areas of widespread transmission is dynamic, www.cdc.gov should be regularly referenced for assessing travel risk)
 - b. Has there been fever? Subjective or have they actually taken it?
 - c. What specific symptoms are they displaying? Ask specifically about cough, vomiting, diarrhea, or rash.
 - d. Is your concern of exposure yourself, or someone that you have been near? If it someone else, get as much information from the previous questions as possible for the suspected contact

If the answers above are no or none, cancel all units but one ambulance and follow standard infection control precautions, including taking the patient's temperature; If the answers are inconclusive or positive, call Wake County Public Health Communicable Diseases at 919-404-7575. For inconclusive or positive patients, they should be directed to maintain wherever it is that they are currently at and not approach the response vehicles as they arrive on the scene. If they are ambulatory, we will ask them to step outside and to the truck when directed to do so.

4. All three Ambulances and the District Chief will review the plan prior to any entrance into the location of the patient. During this briefing, the following items will be addressed:
 - a. Ensure proper hydration with all 6 Crew personnel by consuming 1 bottle of water
 - b. Remove all dangling jewelry, watches, bracelets, etc. that are affixed to the head, arms, or legs
 - c. Review the PPE Donning and Doffing Procedures
 - d. Make crew assignments and review the particulars of each in the plan; the District Chief will use the call sign of Command; Crews 1 – 3 will use those call signs
 - e. Establish communications using a DIRECT channel
 - f. Any students/riders, etc. should stage in the front seat of the District Chief vehicle
5. Crew 1 will don the full PPE, per Donning Procedure for Personnel Using PAPRs. All tape applications will utilize pull tabs. The District Chief should note the time that each crew dons the Tyvek suit. One member of Crew 1 will be equipped with a portable radio with speaker microphone on the designated channel. Prior to the zipper seam being sealed on the Tyvek, radio communications must be verified through the suit.
6. Crew 1 will proceed to the entrance of the building with the cot. The cot should not be taken inside. Crew 1 will then make contact with the patient performing an initial assessment and/or receive report from any public health personnel already on the scene with knowledge of the patient. If not confirmed by the District Chief above, Crew 1 should ask all the questions above. All information should be relayed to the District Chief via radio.
7. Once it has been established through interview that the patient meets the current definition of a suspect patient, the District Chief will contact, by telephone, the receiving facility and advise them of the patient information and an estimated time of departure from the scene and arrival at the facility. Prior to the ambulance departing the scene, the District Chief and the receiving facility should have a definitive plan for the delivery and transfer of the patient at the facility, including the exact location at the facility that EMS should report to and a point of contact by name that the District Chief will liaison with upon arrival. For WakeMed Raleigh, the contact number is (919) 350-5804. For Rex Hospital, the contact number is (919) 784-3038
8. As Crew 1 starts the Donning Procedure, Crew 3 will utilize plastic sheeting and duct tape to isolate the module from the cab of the Crew 1 Ambulance, covering from side to side. This will require using plastic sheeting to cover the entire interior of the module, from wall to wall and securing all 4 edges with duct tape. In the event that the patient is heavily contaminated with infectious material and/or is actively vomiting, plastic sheeting should be installed over the streetside cabinetry from ceiling to floor, secured on four sides with tape. In this case, a single long sheet of plastic should be used. The HVAC system in the rear of the module will be engaged for maximum cooling/heating and all doors should remain closed. All portable medical equipment and controlled substances will be removed from the interior spaces of the Crew 1 Ambulance and stored in the Crew 2 ambulance. The M-cylinder should be turned on and a non-rebreather mask connected to the curbside flowmeter and turned off. When Crew 1 is fully donned, Crew 2 will assist Crew 3 in the preparation of the ambulance.

9. Crew 1 will load the patient onto a cot, covering the patient with one or more standard sheets. If any additional patient movement equipment is required, the District Chief will have it move to the proximity of the front door and then a Crew 1 member will retrieve it and take it inside. This equipment will need to accompany the patient inside the ambulance to the hospital. If required, Crew 3, wearing the full Tyvek suit, including chemical boots and gloves, and N95 mask, will assist in this movement and will remain with Crew 1 throughout the transport.
10. Prior to loading the patient in the ambulance, the EMT/Second Paramedic from Crew 2 will enter the cab of the Crew 1 Ambulance, and turn off the HVAC system in the module. Before the patient is loaded, there should be no air movement systems operational in the module, including the ventilation fans.
11. Once the patient is loaded, the ambulance will proceed to the determined receiving facility routine traffic. Crew 1 should only implement oxygen therapy via the non-rebreather mask on the benchseat. EMS will not implement any other clinical or assessment procedures.
12. The District Chief and the Crew 2 and 3 ambulances will follow the Crew 1 Ambulance to the receiving facility. Coordination should be exercised to ensure these vehicles do not become overly separated during the transport.
13. Upon arrival at the facility, the patient and Crew 1 should remain in the ambulance until instructed by receiving personnel to exit the vehicle. The District Chief will conduct a face-to-face briefing with the receiving facility personnel to verify the plan of action for delivery and transfer. Crew 1 will be responsible for unloading the patient and completing the transfer to staff of the receiving facility. Once the patient is removed, the ambulance should be shut down.
14. Crew 2 will don the full PPE, per Donning Procedure for Personnel Assistants.
15. All barriers installed in the Crew 1 ambulance will remain in place. The cot, and any patient moving equipment utilized will be secured in the rear of the ambulance. This truck will be relocated and secured at a location to be determined by EMS Administration until time as a full diagnosis of the patient has been determined.
16. Upon the return of Crew 1 to the location of the ambulance (or to another location as determined by the receiving facility), Crew 2 will focus on assisting Crew 1 with the implementation of the Doffing Procedure. As Crew 1 has been in the gear the longest, they are the priority for doffing.
17. Once Crew 1 has been completely doffed of their PPE, Crew 2 will utilize the Doffing Procedure for Assistants.
18. Once cleared, all personnel should thoroughly wash their hands and rehydrate. Supplies for restocking assigned PPE will be requested through Logistics.