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System Memo: # 350

To: All System members

Please POST

From: John M. Ortinau, M.D., FACEP
EMS Medical Director

RE: **EBOLA preparedness and response**

Purpose: To ensure that our PSAPs and System members have very clear messaging.

The safety of our patients, their contacts, EMS/public safety personnel, and receiving hospital staff is our top priority. While Ebola may not affect our service area, we must be prepared if it does. All must be informed so we take appropriate steps to:

PREP FOR & DETECT a patient with possible Ebola S&S

PROTECT / CONTAIN and mitigate against foreseeable risks (exposure); and

RESPOND to the patient's needs; safely transport; and decon appropriately

Our plan is **EVOLVING** and will be modified as necessary to anticipate your needs and adapt to new information or guidelines as they are released by the CDC and/or Departments of Public Health.

We will do our best to be clear, concise, and to the point. However, we encourage leaders and DICOs to be familiar with the full CDC guidelines and IDPH messaging on this disease so they can inform, provide resources, monitor compliance, and answer questions from their members.

Current Risk Level in our area LOW: We are looking for very rare cases and screening a lot of people to find those few who may need to be screened further at the hospital for the disease.

KEY POINTS:

The **likelihood of contracting Ebola is extremely low** unless a person has direct unprotected contact with the blood or body fluids (urine, saliva, feces, vomit, sweat, and semen) of a person who is sick with Ebola or direct handling of bats or nonhuman primates from areas with Ebola outbreaks.

Public Safety Answering Points (PSAPs) should question callers about:

- Risk factors within the past 3 weeks (21 days) before onset of symptoms:
  - **Residence in or travel to** a country where an Ebola outbreak is occurring (Liberia, Guinea, Sierra Leone). A list of countries can be accessed at the following link: http://www.cdc.gov/vhf/ebola/outbreaks/2014-west-africa/index.html.
  - **Direct unprotected contact** with the blood or body fluids (like urine, saliva, feces, vomit, sweat, and semen) of a person who is known to have or suspected to have Ebola Virus Disease (The International Academies of Emergency Dispatch's CBNR Fast Track Committee)
- **If yes: ask about S&S of Ebola**: Fever of 100.4° F or greater, and if they have severe headache, muscle pain, vomiting, diarrhea, abdominal pain, or unexplained bleeding.
- Close coordination and frequent communications among 9-1-1 PSAPs, the EMS System, healthcare facilities, and the public health system is important when preparing for and responding to patients with suspected Ebola Virus Disease (EVD) (IDPH memo 10-30-14).
- PSAPS must notify first responders/EMS of a pt with possible exposure/symptoms of Ebola **prior to scene arrival** so they can question pt (from a distance initially) and put on appropriate PPE.

EMS PPE: Advanced planning and practice are critical in putting on and taking off PPE.

- ☐ Put on PPE before entering scene and continue to wear until personnel are no longer in contact with the pt. Empty your pockets of personal belongings before you get into PPE in case the hospital wants to bag and keep everything.
- ☐ EMS personnel must receive education and demonstrate competency in performing all Ebola-related infection control practices and procedures, specifically in donning/doffing proper PPE so no skin is exposed as described in 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)."

EMS Response

Step 1

Scene safety and initial screening

Limit # of EMS personnel that enter pt area

- ☐ If PSAP advises that pt screens for possible Ebola, a**pply PPE BEFORE entering scene**
- ☐ If scene entered without advance notice from PSAP and patient looks sick; use caution when approaching. Illness can cause delirium, with erratic behavior that can place EMS personnel at risk of infection, e.g., flailing or staggering.
- ☐ If pt conscious & talking, stand at a distance that minimizes risk of exposure to body fluids (~3 ft)

Quickly obtain relevant exposure history

Have they experienced any the following within 3 weeks (21 days) prior to onset of S&S?

- ☐ **Residence in or travel to** a country where an Ebola outbreak is occurring (Liberia, Guinea, Sierra Leone). See: http://www.cdc.gov/vhf/ebola/outbreaks/2014-west-africa/index.html.
- ☐ **Direct unprotected contact** with the blood or body fluids (like urine, saliva, feces, vomit, sweat, and semen) of a person who is known to have or suspected to have Ebola Virus

If YES: **Ask if patient is exhibiting:**

- ☐ Fever (greater than 38.6°C or 101.5°F)

AND one or more of the following

☐ Severe headache	☐ Diarrhea	☐ Muscle pain
☐ Weakness	☐ Vomiting	☐ Abdominal pain
☐ Unexplained bleeding or bruising		

Step 2 - ON SCENE CARE

If YES	If NO risk factors
☐ Apply appropriate PPE following CDC guidelines. Limit # of responders with direct pt and/or body fluids contact. This may involve having one provider put on PPE and manage the pt while the other serves as a trained observer and driver. Follow AGENCY procedure. ☐ If Ebola suspected before EMS donned appropriate PPE, IMMEDIATELY WITHDRAW from the area and assess whether an exposure occurred. If yes, see below for actions to take. ☐ Keep pt separated from other persons as much as possible. ☐ **Consider pt health status:** If early in disease and pt is awake, answering questions and has a radial pulse without copious vomiting, diarrhea or unexplained bleeding, no immediate EMS interventions may be needed. Precautions per CDC and transport. ☐ **If pt very ill and not ambulatory:** Pt must be moved via stretcher to ambulance. Multiple providers may be required to put on PPE. EMS personnel wearing PPE who have cared for the pt must remain in the back of the ambulance and not drive. ☐ **Support A,B,Cs as needed**. Whenever possible, limit interventions that can increase risk of exposure to infectious materials (e.g. advanced airway mgt, nebulization of meds, suction, use of needles (IVF)/sharps. Handle ALL sharps with extreme care and dispose in puncture-proof, sealed containers.	Proceed with normal EMS care.

Step 3
Transport

- ☐ Appropriately package pt using Universal and contact precautions
- ☐ If pt has copious body fluids; remove all non-essential equipment from ambulance or call for a mutual aid "Ebola rig" that has been stripped down for this purpose (see below). Cover floor and walls with impermeable drapes. Follow transport vehicle with a fully-stocked ALS ambulance in case supplies or equipment become urgently needed during transport.
- ☐ Notify receiving hospital ASAP, so that infection control precautions and an appropriate room may be prepared prior to patient arrival.
- ☐ Upon hospital arrival: **WAIT IN AMBULANCE** for instructions. Each hospital has an internal plan for how and where they will care for pts with suspected Ebola (usually negative airflow room with internal bathroom) and they will direct you. A contaminated EMS cot should never enter the hospital.

Step 4 **Decon & disposal**	☐ Carefully remove PPE under observation without contaminating one's eyes, mucous membranes, or clothing, in an area designated by the receiving hospital unless the agency has alternate protocols and following proper procedures as specified by the CDC. This could include taking a shower at the hospital and changing into scrubs if consistent with your agency policy. ☐ Perform hand hygiene immediately after removal of PPE. ☐ Place PPE into a medical waste container at the hospital or double bag and hold in a secure location. ☐ Clean & disinfect re-useable PPE according to manufacturer's reprocessing instructions and EMS agency policies. ☐ Dispose of contaminated equipment/PPE/clothing/supplies per CDC guidelines or agency policy. **Cleaning EMS Transport Vehicles after Transporting a Pt with Suspected or Confirmed Ebola** ☐ Take vehicle out of service until full cleaning has been accomplished. ☐ EMS personnel performing cleaning and disinfection should wear recommended PPE since tasks such as liquid waste disposal can generate splashes. ☐ Clean and disinfect all surfaces (including stretchers, railings, medical equipment control panels, and adjacent flooring, walls and work surfaces) as they are likely to be contaminated. ☐ A blood spill or spill of other body fluid or substance (e.g., feces or vomit) should be managed 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. ☐ 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. ☐ Place contaminated reusable pt care equipment in biohazard bags and label for cleaning and disinfection according to agency policies. Clean and disinfect reusable equipment 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. Bag all linens, non-fluid-impermeable pillows or mattresses as appropriate and seek CDC recommendations for cleaning and/or disposal. ☐ The Ebola virus is a Category A infectious substance regulated by the U.S. Department of Transportation's (DOT) Hazardous Materials Regulations (HMR, 49 C.F.R., Parts 171-180). Any item transported for disposal that is contaminated or suspected of being contaminated with a Category A infectious substance must be packaged and transported in accordance with the HMR. This includes medical equipment, sharps, linens, and used health care products (such as soiled absorbent pads or dressings, kidney-shaped emesis pans, portable toilets, used Personal Protection Equipment [e.g., gowns, masks, gloves, goggles, face shields, respirators, booties] or byproducts of cleaning) contaminated or suspected of being contaminated with a Category A infectious substance. [4]

- These guidelines are based on current knowledge of Ebola. Updates are posted as needed on the CDC Ebola webpage(http://www.cdc.gov/vhf/ebola/index.html).
- We would encourage each agency to participate in an exercise with your most frequent receiving hospital so EMS personnel are aware of the hospital's receiving policies and we integrate well with the healthcare community.
- In some areas of the country a modified vehicle with limited supplies is being used to transport suspected Ebola cases and our System would be open to considering a similar practice. IDPH is granting waivers to have a stripped down vehicle transport the patient with a full-equipped ambulance driving behind that can provide additional drugs and supplies handed into the rig as needed without contaminating the other vehicle or crew.
- If you believe that you have fully disinfected the ambulance in compliance with CDC guidelines, and need to return the vehicle to active service, current CDC guidelines support that practice.
- If a crew has cares for a high risk patient while in proper PPE with appropriate donning and doffing using a buddy system and approved checklist, the CDC allows for them to return to usual and customary activities. If the agency chooses a different approach, all EMS personnel must comply with their agency guidelines. We will follow all current and future CDC recommendations on healthcare workers who have been in contact with confirmed Ebola patients.

  If exposure occurred prior to PPE applied: Contact agency DICO and implement agency exposure plan; also contact EMS MD. It is our recommendation that they be placed in voluntary quarantine until the CDC lab report is available or until the local health department makes a determination. If the pt tests positive for Ebola, the exposed individual should receive medical evaluation and follow-up care, including fever monitoring twice daily for 21 days, after the last known exposure. Their activities during this time will be based upon EMS agency policy and determinations of state and federal public health authorities.