

NASEMSO After Action Review: Lessons Learned, Best Practices and Recommendations - Ebola Disease Outbreak

by NASEMSO Domestic Preparedness Committee, as of 04-05-2015



CRITICAL DATES

The following highlights critical dates on the Ebola Disease outbreak and includes all EMS related notices and updates from <http://www.cdc.gov/vhf/ebola/outbreaks/2014-west-africa/whats-new.html>:

August 8, 2014: The World Health Organization (WHO) declared the current Ebola outbreak a public health emergency of International concern. This declaration spearheaded the development of CDC's written Ebola guidance document for Emergency Services and 9-1-1 centers that was released on August 26, 2014.

August 14, 2014: CDC posts Air Medical Transport (AMT) Guidance for Patients with EVD.

August 26, 2014: CDC posts Interim Guidance for EMS and 9-1-1 PSAPs.

September 11, 2014: AMT Guidance updated.

September 26, 2014: HHS releases EMS checklist.

September 30, 2014: A patient who had traveled from Liberia to Texas was seen in a Texas emergency department and tested positive for Ebola, making him the first case diagnosed in the United States.

September 30, 2014: NASEMSO set up an "Ebola" focused site for EMS.

October 1, 2014: EMS and 9-1-1 PSAP Guidance updated.

October 6-10, 2014: NASEMSO convenes its Annual Meeting with discussion on this topic among NASEMSO members.

October 10, 2014: An American health care worker who provided care for the Ebola patient tested positive for Ebola.

October 14, 2014: CDC provides revised hospital guidance for PPE, including donning and doffing procedures.

October 15, 2014: A second American health care worker who also provided care tested positive for Ebola.

October 20, 2014: Tightened PPE guidance for all US healthcare workers posted by CDC.

October 24, 2014: EMS and 9-1-1 PSAP Guidance updated.

December 2, 2014: EMS and 9-1-1 PSAP Guidance updated.

January 8, 2015: CDC posts the EMS Algorithm.

February 9, 2015: CDC conducts an Ebola outreach call for EMS and 9-1-1/PSAP stakeholders.

BACKGROUND

The Ebola virus is a rare and deadly disease caused by infection of one of the Ebola virus strains. Ebola is spread through direct contact with a person or with some animals that would include direct contact with the host blood, secretions or other bodily fluids or by objects that have been contaminated with the virus such as a needle.

Ebola is not contagious until symptoms appear. Ebola is not spread thru the air, by water or food.

Once the first patient was diagnosed with Ebola in the United States, the National Association of States Emergency Medical Services Officials (NASEMSO) staff began participating in numerous national and international conference calls with CDC and other response stakeholders and disseminating information on recommendations for protection and prevention for healthcare workers. The chair of NASEMSO's Domestic Preparedness (DP) Committee was actively involved with sharing real time information and recommendations as they became known. The Centers for Disease Control and Prevention (CDC), National Highway and Traffic Safety Administration (NHTSA) and Department of Homeland Security (DHS) and Assistant Secretary of Preparedness and Emergency Response (ASPER) maintained open lines of communication with NASEMSO and shared Personal Protection Equipment (PPE) recommendations as well as other prevention measures if and when EMS personnel had to treat and transport a patient who may have Ebola. These recommendations were provided to state EMS Offices, DP Committee members, posted on NASEMSO's web page and shared with EMS stakeholders and partners. In addition, guidelines and samples were posted of what states and cities were initiating for an infectious patient.

Summary of U.S. cases: Aside from the well-publicized "index" case, since September 1, 2015 five health workers and one journalist have been infected with the Ebola virus while in West Africa and transported to hospitals in the US. Five of these patients have recovered.

One health care worker passed away in November 2014 after being transported from Sierra Leone to Nebraska Medical Center.

LESSONS LEARNED

The following highlights lessons learned from this Ebola outbreak:

- State EMS Offices need to find a way to communicate recommendations and validated information to EMS personnel who are or may have direct contact with an infectious patient. Many states found various ways to accomplish this; validated information should be posted on the NASEMSO DP web site in order for other states to utilize this communication process.
- Early guidance documents and updates from federal partners focused on hospitals and health care facilities, even though EMS and 9-1-1 PSAPs were involved with exposure queries, patient care, and transport from the initial onset of the outbreak.
- EMS and 9-1-1 PSAP Interim Guidance was updated 3 times following the initial posting. It is unclear what changed from one version to the next, creating a sense of complacency and confusion among state EMS officials.
- At times there was so much information coming out by a variety of sources that it became overwhelming. There were comments that information being disseminated should be a “need to know” only versus all the updates and status of effected counties.
- Proactively develop a communication plan to ensure that the media is receiving validated timely information.
- EMS Offices need to validate information before it is disseminated and assure that information is current relative to EMS
- If there is an emerging severe infectious disease outbreak, states should consider a state system response including opening up the state emergency operation center (EOC).
- Information coming out on recommended PPE tended to be for healthcare facilities and not initially for EMS.
- Need to identify how to provide/purchase recommended PPE to EMS providers based on limited supplies.
- Recommendations were published by CDC for PPE for pre-hospital care providers but once these were made public, many of the recommended PPE was on back order from manufacturers.
- There was early evidence that many EMS providers did not have a plan to appropriately treat and transport an infectious patient using appropriate PPE
- Ebola provided evidence for the need for more education and open communication between all aspects of emergency response including public health and local governmental leadership.

- It was quickly identified that local EMS providers, local health department and state health department needed to communicate regularly and identify how and where a potential infectious patient needed to be transported to.
- Designated airports in which there were flights originating from specific countries, which may have a traveler with specific signs and symptoms, quickly put into place a screening process for travelers. Potential infectious travelers who were on these flights and where this was communicated to the airport CDC staff needed to also communicate that information with local EMS providers.

BEST PRACTICES

The following highlights best practices from this Ebola outbreak:

- September 30, 2014 NASEMSO set up an “Ebola-focused” section on our NASEMSO web site which was continuously updated with information from CDC, FEMA, the Interagency Board (IAB), MIEMSS, PHMSA, US DoD and WHO. The web site included written guidance, links to videos and checklists that were determined to be useful for EMS in managing a response.
- NASEMSO was invited to participate in CDC’s “Ebola Preparedness Check-in Call with Senior Staff of Public Health and Health Care Organizations.” This gave NASEMSO a direct means to identify unresolved problems and to provide assistance in determining conditions in selected states and random jurisdictions.
- Information on the Ebola response and helpful information for EMS was also disseminated through the monthly NASEMSO Washington Update.
- Statewide conference calls were conducted for EMS personnel with participation from local providers and state officials including public health leadership and federal response partners.
- Many local EMS providers developed an “infectious disease transport vehicle” using minimal equipment and providing protection for ambulance equipment and personnel. State EMS Offices were involved in developing an approval process for these ambulances.
- Many PSAP/9-1-1 call centers instituted questions concerning travel outside the U.S. and specific chief complaints in order to identify, for EMS, potential infectious patients.
- Great sharing of information by EMS and public health stakeholders
- Federal partners to include CDC, NHTSA, and DHS were a great resource throughout the outbreak with validated information and solutions to local issues.

RECOMMENDATIONS

Recommendations for consideration by federal partners:

1. HHS/CDC should take the lead in coordinating and communicating health related information. While this was what largely occurred with the Ebola outbreak, multiple federal agencies began issuing Ebola guidance that served to overwhelm and confuse the intended receivers. (www.flu.gov is an effective model that seems to work well for communicating focused information.)
2. To ensure receipt of messaging intended for an EMS audience, guidance documents titled for “healthcare workers” ought to specify EMS/9-1-1 PSAPs somewhere in the purpose of the document.
3. When updated guidance documents become available, a summary of the changes from previous guidance should be included so that the audience can focus on “what’s new” and doesn’t have to relearn information.

CONTACT

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