

# Free research paper on role of ems in disaster management

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## **Improving disaster management for emergency medical services**

### Abstract

The emergency medical services (EMS) professionals have been serving as front line disaster management and rescue team for the past thirty years. The EMS professionals are one of the first branches of rescue teams that are dispatched during an emergency irrespective of their level of training. In case of a disaster, the EMS professionals have to work alongside various other departments such as police, fire and hospitals to create a coherent disaster management regime. To achieve this, it is crucial to lay down protocols and hierarchy that would enable smooth flow of information and communication. Since the 9/11 attacks, disaster preparedness has been one of the core competencies pursued in EMS training modules; however, currently, there is no standard training module or curriculum for EMS to emphasize multiagency preparedness. This paper suggests methods such as using novel communication modes for uninterrupted information flow, multiagency training for level one EMS staff and individual-level training for increase self-efficacy and perception of preparedness improve disaster management for EMS professionals.

### Improving disaster management for emergency medical services

Professionals of the emergency medical services (EMS) have been rendering their assistance for the past three decades to the country in times of mass-casualty incidents such as terrorist attacks, natural calamities and epidemic. The EMS professionals have to assume leadership roles and coordinate with various departments of public services to manage a disaster. A disaster is an

event that cripples a community, rendering it incapable of coping with the situation. It is, therefore, essential for EMS professionals to have the necessary training in disaster management that enables them to react quickly and efficiently during crisis. Disaster management can be carried out in three steps. The first step is to be prepared for any mass-casualty incident. Disaster preparedness involves planning, organizing, equipping, training and improving the system based on periodic evaluation of the same. In other words, preparedness involves charting out emergency operating procedures (EOPs), chain of command, developing interdepartmental communication systems for continuous flow of information, stockpiling reserves and training for managing disaster. The second step is to respond to a disaster by recognizing the incident, notifying the incident to higher personnel, mobilizing help, responding to the incident and demobilizing help when the incident is under control. The third step is recovery. In a disaster scenario, recovery could mean bringing the situation back to normal (Catlett, Jenkins & Millin, 2011; Marx, Hockberger, & Walls, 2013).

Currently, there is no standardized syllabus or training module for EMS professionals (Fernandez et al, 2011). This could act as a hindrance if the training received by the professionals is not adequate to handle disaster beyond their scope.

### **Role in disaster preparedness**

As part of disaster preparedness, EMS professionals undergo training for handling chemical, biological, radiological and nuclear (CBRN) events, mass-casualty events (MCEs), terrorist attack and structural collapse. They also

train in out-of-hospital medical procedures, understanding time-dependent mortality and assess treatment capabilities to provide medical assistance to the patient before reaching the hospital. During training, EMS directors sign memorandum of understanding (MoUs) between interrelated agencies to facilitate interdepartmental coordination and leadership development among EMS providers. Since EMS professionals are one of the first respondents at the scene of any disaster, it is essential that they are trained to assess the situation and maintain communication for smooth disaster management (Catlett, Jenkins & Millin, 2011).

### **Role in disaster response**

During an active emergency, EMS providers need to take initiative and lead their team for better coordination with emergency departments (ED) of the hospitals (Reddy et al, 2008). One of the critical roles of the EMS during an active disaster is to determine what kind of treatment a patient might need. Being at the site of the event, the EMS professionals are usually in a better position than the hospital to take critical decisions regarding a patient's treatment plan. Two types of triage could be setup during an emergency to assess the patients, namely, simple triage and rapid treatment (START) and sort, assess, lifesaving interventions and treatment/transport (SALT). Since the role of an EMS professional is highly jurisdictional, the EMS directors must help the EMS providers expand their roles beyond their jurisdiction through licensure (Catlett, Jenkins & Millin, 2011).

## **Role in disaster recovery**

EMS provides supplementary help to hospitals and support groups to get back to their normal working conditions. That is, every EMS staff has a professional duty to help the community recover from a disaster after the disaster has been managed (Marx, Hockberger, & Walls, 2013). They lend a helping hand by replenishing stockpiles and reserves, lending transportation services, etc. As part of the recovery process, the EMS professionals are trained to be resilient to stress and fight stress through proper critical incident stress management (Catlett, Jenkins & Millin, 2011).

## **Suggestions for improving EMS disaster management**

### **Need for more hours of individual-level disaster preparedness**

In a survey conducted by a group of scientists on twenty one thousand EMS professionals, it was observed that nearly 90% of the respondents had undergone more than one hour of individual-level training for disaster preparedness in a two-year period. This training was deemed crucial by the scientists because the number of hours of individual-level training was observed to be directly proportional to the perception of being prepared. The perception of being prepared was found to be one of the highly motivating factors for the EMS professional to gauge their self-efficacy. Self-efficacy is comparable to self-confidence, and was proven to be directly related to the act of responding during a crisis (Fernandez et al, 2011). Therefore, if the number of hours of individual level disaster preparedness was increased during disaster management training, more numbers of EMS professional

would feel comfortable to respond, thereby increasing the workforce responding to an actual disaster.

## **Improving interdepartmental communication**

As mentioned earlier, disaster management is an interdepartmental effort.

During a disaster, it is not uncommon to witness the overwhelming of different modes of communication. This adds misery to a crisis as there is a breakdown in the flow of information during interdepartmental transit.

Information collected as part of initial assessment by the EMS on field needs to be transferred to the ED in the hospital for quick diagnosis. If there is a break in the flow of information, the ED staff might be left with no information or very less information that could delay treatment of the patient. A probable reason for the break in the information flow could be due to the fact that the EMS and ED personnel do not share common grounds for carrying out their rescue operations. Such a gap could be bridged by creating awareness of the situation on the field and the hospitals through a real-time communication center or system (Reddy et al, 2009).

Professionals from EMS and ED with prior experience in real-life disaster management have opined that paper is usually the best mode of communication during a disaster when compared to walkie-talkie or cell phones; however, paper is not a real-time mode of communication, and can easily be lost during transit. Therefore, there is a dire need to find new ways to improve interdepartmental communication that is stable, easy to edit, understand and is distributable in a hierarchical fashion (Reddy et al, 2009).

## **Need for multiagency training**

A disaster could be biological, chemical, nuclear, physical or natural in nature. A single agency cannot provide training for various disaster managements. Hence, it is essential to include multiagency training for EMS professionals. Training the EMS providers at the grass root level for handling CBRN and weapons of mass destruction (WMD) will vastly improve their self-efficacy and equip them to manage a wide range of emergencies such as terrorist attacks, structural damage, bio warfare, nuclear disaster and chemical disaster (Fernandez et al, 2011).

## **Conclusion**

Disaster management is a multiagency task. Hence, it is imperative to establish good communication systems between the various departments to ensure smooth flow of information. This could be realized by using communication systems that create awareness and bring common experiences into focus. The EMS is one of the first branches of rescue teams to be dispatched during any disaster irrespective of its nature. This exemplifies the need for multiagency training for an EMS professional.

## **References**

- Catlett, C. L., Jenkins, J. L., & Millin, M. G. (2011). Role of emergency medical services in disaster response: resource document for the National Association of EMS Physicians position statement. *Prehospital emergency care*, 15(3), 420-425.
- Fernandez, A. R., Studnek, J. R., Margolis, G. S., Mac Crawford, J., Bentley, M. A., & Marcozzi, D. (2011). Disaster preparedness of nationally certified

emergency medical services professionals. *Academic emergency medicine*, 18(4), 403-412.

Marx, J., Hockberger, R., & Walls, R. (2013). *Rosen's Emergency Medicine- Concepts and Clinical Practice*. Elsevier Health Sciences.

Reddy, M. C., Paul, S. A., Abraham, J., McNeese, M., DeFlicht, C., & Yen, J. (2009). Challenges to effective crisis management: using information and communication technologies to coordinate emergency medical services and emergency department teams. *International journal of medical informatics*, 78(4), 259-269.