

Trauma Team Activation Plan during Disaster

KEYWORD	S Trauma	Trauma Centre, Disaster Plan, Schema	
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ABSTRACT Disasters are situation which come un-alarmed and they clearly strain the hospital's infrastructure and re- sources to function in full capacity. The hospital itself lands up in a crisis situation while managing disas-			

ter victims. In order to combat such a situation each hospital particularly those designated or functioning as trauma care hospital should have a written and widely distributed disaster management programme in order to activate the trauma team and save life of trauma victims coming in large numbers in such a situation.

Introduction

Disasters both natural and man-made have the potential to kill thousands of people in minutes. Moreover, many more people are killed during the following weeks and years due to the consequences of disasters [1]. In the recent past India like other parts of the world has witnessed many such disasters notably the Gujrat Earthquake in 2001, Indian Ocean Tsunami in 2004, Mumbai catastrophic rains in 2005, Bihar Flood in 2007, Mumbai terrorist attack 2008 , Uttarakhand Flash Floods in 2013 and recently in 2015 the Nepal earthquake. During the Nepal earthquake, there were more than 8,000 deaths and more than 14,000 people who were injured in Nepal and Sub Himalayan areas of India as well. Thousands of people were made homeless across many districts of the country [2]. During the past twenty years, natural disasters have affected more than three million families (i.e. at least 800 million people) worldwide and have cost more than \$500 billion [3]. Disasters affect all economic, political, and cultural infrastructures of afflicted communities and inundate healthcare systems with huge numbers of victims for prolonged periods of time [4].

Hospitals are among the healthcare centres whose prompt and efficient services can play a significant role in decreasing disaster mortality rate [5]. Accordingly, hospitals should be designed and built in such a way that they can effectively manage all kinds of high-pressure crisis situations [6]. Effective disaster management necessitates having adequate hospital disaster preparedness hospital disaster preparedness (HDP) [7] which is one of the major concerns of the World Health Organization [8].

National Disaster Management Authority (NDMA) is an agency of the Ministry of Home Affairs in India, whose primary purpose is to coordinate response to natural or man-made disasters and for capacity-building in disaster resiliency and crisis response. NDMA was established through the Disaster Management Act enacted by the Government of India in December 2005. NDMA collaborates with the Ministry of Health and Family Welfare, Government of India in developing emergency health and ambulance services. Specifically, it focuses on capacity building in dealing with mass casualty at local hospitals. Hence it is mandatory that a plan of action for disaster management should be prepared in major government hospitals so that whenever disaster occurs all personals involved in the disaster management should know what they have to do and how they have to work to save the life of the victims. There should also be equal emphasis on regular updates and mock drills to re-enforce upon the status of preparedness to disaster situation.

In the city of Varanasi of Uttar Pradesh, India, a tertiary level University teaching hospital and a well equipped state of art Level one Trauma Centre has been established in order to provide a continuous trauma care to people of a wide area of eastern Uttar Pradesh, Bihar, Madhya Pradesh and Nepal. The Trauma Centre also shoulders the responsibility of providing a competent and effective health care service provider at any event of disaster. To successfully meet the requirement of the high pressure crisis situation arising out of any disaster, the Trauma Centre, Banaras Hindu University, Varanasi has developed a trauma team activation plan for disaster management which has been briefly described in this article.

Need for the layout plan on Disaster Management

The foremost need of the layout plan for disaster management in a hospital is to have a preparedness to handle a disaster situation. This defines the essential items that need to be stored and kept ready to be used as and when situation demands. The lay out plan can define on an individual basis the role of all health care personals and the exact schema of plan of action when the victims of disaster start pouring in a number which could strain the capacity of providing health care service by the hospital. The lay out plan can precisely define how to have a quick, effective and precise communication among the health care providers and also with the government and non-government organizations in order to facilitate the health services. This will prevent any chaos during the time of managing disaster. With repeated imitation practices / mock drills as per the guidelines set by the lay out plan the hospital can work in an efficient way to maximise the number of lives saved in a situation of disaster.

Disaster activation plan

Disaster activation plan has to be made on the goal to have some contingency plans in the event of a problem. A disaster management plan exists to effectively cope up with the stress of situations in which the capabilities of a hospital (the Trauma Centre) is clearely strained and to maximize the utilization of available resourses.

In order to make a plan one has to keep in mind the available resources, infrastructure, communication methodology, step by step execution of plan, the team leader and a post disaster plan activation assessment. Unfortunately, there are no cookiecutter templates, and one size doesn't fit all. There are some common elements among plans, but every plan will be different because every organization's structure and circumstances are unique.

The key task of any disaster plan is whether all employees can recognize what a disaster is and what they should do in case of such an event? In the event of an emergency, all personnel should know what their roles are, and where they should go. All the staff has to know what to do in case a disaster message is received. The disaster preparedness should be inculcated into the culture of the trauma centre. Orientation sessions for new employees should include an overview of the contents and distribution of a detailed copy of the disaster management plan.

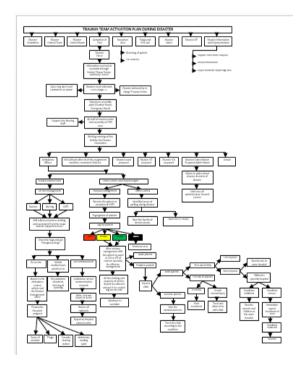
A disaster preparedness and recovery plan should include employee training. It should address general training for all employees, including:

- individual roles and responsibilities
- emergency response procedures
- information about hazards during disaster management and protective actions
- notification, warning and communications procedures
- -means for locating the injured and their family members
- -- on-site evacuation, reception, triage and accountability procedures
- location and use of common emergency equipment
- Key Committees and areas in disaster plan

The head /in-charge of the Trauma Centre is the person who has the authority to declare that Disaster has occurred and the hospital has to be now ready for receiving the casualities arising out of it. There has to be a proper chain of command and broad knowledge of person who is in charge of different committees. The Disaster Management Committee comprises of Trauma Centre Incharge, Administrative Incharge, Chief Medical Officer, Store Incharge, Nursing Suprientendent and Hospital Civil Engineer. The Disaster Control Team comprising of Trauma Centre In-charge along with the heads of surgical discipline, anaesthesia and Blood Bank. The Disaster Control Room needs to be pre identified with a designated person as the in-charge for co-ordination among various committees and for relay of information among staff members. There has to be a designated reception area preferably on the outer side of the hospital where mass casuality patients will be received and triaged. The Triage and First Aid Team will be responsible for segregating the injured in red, green, yellow or black category at the reception area itself. The reception area should also designate persons for attending the kith and kins of the injured coming to the hospital. As soon as the disaster is declared the wards on the ground floor should be evacuated and be designated as disaster ward and few operation theaters (number depending on the type of disaster and the estimated number of injured coming to the hospital) should be made stand by as Disaster OTs. Another key area is the Disaster Information and Communication Centre for collecting and dissipating necessary information to the higher administrative authorities, Police officials, Media persons, relatives of injured and among staff of hospital.

The Schema of Disaster Trauma Team Activation Plan of our Trauma Centre is shown in Figure 1. This plan along with the names of concerned person has to be prepared and distributed among all the staff of the Trauma Centre. We are having regular meeting of all the staff at regular intervals and all concerned person present in detail about their respective roles. We frequently conduct mock drills in order to check the effectiveness of activation of this plan and analyzing and rectifying the lacunaes arising thereof.

As things change in the organization-people come, people go, programs fold, programs start-the plan has to be updated to reflect these changes. The ideal candidate for maintaining and updating the plan may be the person who oversaw the Disaster Management, or someone who was involved with the process.



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