For Practitioner

The Identification of the Victims in Case of Catastrophe or Mass Casualty Accidents

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ABSTRACT: Medical approach of a catastrophe or mass casualty accidents is an interdisciplinary issue which brings in discussion complex aspects of emergency medicine but also of forensic,criminal law and criminology. Emergency medicine physician is more and more often in the position of managing a catastrophe in which medical disaster is doubled by material loss,impressive by value and dimensions. Depending on the event,this emergency situations implies not only the emergency medicine physician but also other physicians, institutions and persons to aply the law. It is noted the need to a well known procedure for victims identification in case of disasters and catastrophe, as well as importance of standardized forms for emergency situations involving multiple casualties. It requires the existence of a national computerized data collection for disaster and catastrophe situations, and for mass accidents. The responsibility of identifying and managing victims in disaster situations or catastrophe belongs to such organizations like the Police, the prosecution, the rangers, the fire department, with the involvement of the emergency medical services.

KEYWORDS: *mass casualty incidents, disaster, victim's identification*

Introduction

Air disasters, car and rail accidents, work accidents resulting in multiple casualties are common realities increasingly in the contemporary world and the emergency doctor must face them respecting the imperative of saving victims' lives.

The global burden of the intervention teams is to establish any legal-criminal or civil implications – of the facts, including crime scene investigation, after the technical-medical intervention – is finished. Focused on medical tasks, the medical staff is neither trained nor aware of the existence of points of incidence of the legal medical activity. The first common point is exactly the place for medical intervention which is at the same time a source of information for the judiciary.

The emergency doctor, because he must be first to be referred to on this issue, must be aware of the significance of his actions and of the legal implications of disasters he has to manage from a medical perspective. The intervention coordinator should be aware that apart from his involvement, other people will enter the area where medical intervention took place in order to determine, based on the traces found, the circumstances of the facts, the presence or absence of a crime.

Objectives

Starting from this, we can try to configure the behavior of medical teams at the place of intervention in case of disaster, as well as an algorithm of it, taking into account its broader frame and its multiple meanings.

Methods of study

It consists in the analysis of various emergency systems configurations in terms of identifying victims of mass casualties resulting from disasters and the role, place and specific missions of medical teams in the integrated action**.** In the same time we apreciated the needs of the emergency medical services from our country in direction of complete the standardized and integrated action and achieve a more functional, flexible and adaptable intervention system.

The first step of this approach is to define the conceptual framework, and to establish specific definitions, which are critical to the success of the approach we propose.

In Title IV of the Law. 95/2006 regarding the healthcare reform - The national system of emergency medical assistence and qualified first aid "is defined the notion of collective accident in art.86, par.2, letter a, as a key event involving a number of victims requiring a specific plan of intervention using intervention forces in addition to those on guard at the moment (1). The number of victims that is necessary in oredr to initiate a specific plan of action varies from case to case, taking into account the human and material resources available for intervention in the area where the accident occurred.

Since the text does not define the number of victims, a defining feature of this type of event, but refers to the fact that it exceeds the normal

scope of current medical staff, it leads to the conclusion of a variable number of the magnitude and consequences that require organization and resources over those normally deployed at an intervention. Since the emergency medical insurance conditions are relatively unequal in our country, defining a collective accident is difficult from this point of view.

The doctrine defines disaster as the event that exceeds the existing social systems (2).

In other countries' legislation, the concept is defined as the occurrence of a large number of injured due to the same agent acting in a time unit. The number of victims defining the collective accident, in different laws varies from 3 to 15 victims. Since doctrinal discussions are not useful in clarifying the conduct practical issues of medical staff it is important to note the extent of occurrence criterion, which exceeds through size the current management options for on-call personnel in the area where it occurred.

The crime is, according to Article 17 of the Criminal Code, the deed which represents a social threaten, committed with guilt and provisioned by the criminal law. The offense is the sole basis for criminal liability (3). Essentially, it is a serious violation of the law and in the case of a collective accident or a disaster causing life loss or injuries or destruction of property, the significance of the criminal acts committed is inevitable. That is why along with emergency medical personal, people of the law also work on the spot, sometimes simultaneously, sometimes later.

Key point of disaster management is the proper medical intervention. It is achieved through a specfic algorithm and a methodology of providing medical aid aiming to prevent the extension of the disaster and saving the victims' lives. In this algorithm, establishing the truth is one of the subsumed activities in criminal proceedings, which usually takes place in immediate succession after a medical intervention and activities that relate to the identification of survivors who are unable to identify themselves (children, people with altered state of consciousness, people with memory disorders due to traumatic shock).

Discussions

A lots of aspects are involved, giving interdisciplinary aspects of this issue:

I. The relationship between emergency medicine, forensic medicine, legal services

From this perspective, the algorithm involves a series of specific steps and rules that must be respected by those who implement the intervention:

• limiting access of foreign persons on the spot

• segregation and securing the crime scene

• removal facilities at the site that are not affected by the accident, carried out by skilled personnel

• access of the rescue team to the disaster site,

Certain aspects should be taken into specially consideration such as:

1. It would be ideal that the people on-site, victims or witnesses be questioned immediately about the extent and causes of the disaster

2. It would be ideal that these persons be identified in order to give further details to judicial organs and to the medical personnel regarding the other victims and the circumstances of the accident.

3. an emergency services worker, or he has arrived at the scene, a police officer should record all data.

4. the access for the rescue team must be performed so as not to alter the scene if this is not necessary. Thus, the entry and the exit from the location of the victims will be made preferably on the same route, obvious dead bodies, or objects that do not block access to victims or do not threaten the life of the victims or that of the rescuers will not be touched.

Multiple operating aspects are developed on scene, being related with victims localization and identification:

locating and sorting of victims. At this time the staff of the emergency crew goes to the victims and performs the triage victims following the specific medical criteria.

where medical teams are vastly outnumbered, the laity may be asked to help search and rescue victims. Under the provisions of art. 86 of the Air Code, for example, all public authorities as well as individuals and legal entities, shall be required to assist in search and rescue operations of the victims.

victims transportation to the triage point, advanced medical post (PMA) and then to the ambulances or transport vehicles for multiple victims (ATPVM) and thence to the hospital. Depending on their condition at the scene, they are given first aid on the spot or extrication. Do not forget the emergency doctor (medical staff or paramedics) is not a policeman, prosecutor, or judge. What he needs to perform first is the

medical intervention. The remaining activities are subsumed under this goal, but performing medical intevention also involves identifying the victim. It can be done either through discussion with the victim if his condition allows, either by searching its assets or documents, either before or, preferably, after stabilization. In practice, men can be identified more easily than women because they keep the identity documents with them and not in the purses like women, and in case of major accidents the purses are not nearby.

identity documents must be kept by one person only, police officer or firefighter, who also fills in the list of people discovered and identified. As a working methodology it is useful the drafting of the list of persons identified in the rescue operations, besides the civil status data, where it will be recorded the way of identifying each person- his own declaration, witness statements, based on an identity document- it will described which namely , based on a certain object, or if it's a high profile celebrity person of a particular area of social life that medical personnel or other person may know.

the medical intervention often involves changing scene of the accident. It is performed if necessary in order to gain access to the victim (extrication) or to have access to other victims. In both cases there are changes to the place where they are found. The dimensions of these changes are variable, and emergency medical personnel must not hesitate in achieving them.

Is also very important and it is recommended that these interventions are fixed by filming or photographing so that the material thus made be used by the judiciary in their specific activity. The access of the medical team to the living victims may involve the removal or destruction of objects, movement activities, or removal of the bodies of other dead victims at the beginning or during the intervention. And these moments must be filmed or photographed. Destructive manipulations of the bodies of others can be done only if the living victim alive can not be reached otherwise. In any case, if there is no other option, they must be performed without hesitation, the main purpose of the emergency team being the salvation of the victims' lives.

If at the scene there will be found remains of bodies or parts or organs whose belonging can not be established, they will left where they are found if possible, and if not, they will be transported to a particular place. If the belonging can established and it is in the interest of the patient to be removed(for the achievement of an intervention such as plastic surgery), these fragments may taken, filming or photographing being this time also, necessary.

The victims' bodies or the remains of the victims' bodies will be set in a safe place, away from other people and only if it is absolutely necessary will be moved. In the first case, it is recommended to be guard by the firefighters or the police.

In the prospect of discovering any valuable property that by force of circumstances can not be guarded, especially if on the spot there are also secular people, the items may be removed and stored separately, if possible at the same place with the victims' bodies. It is ideal to write down where they were found, to be photographed or filmed before lifting. This is done after the first aid was provided to victims, only in exceptional cases before.

After the first aid is provided, medical personnel should avoid accidental changes at the crime scene. In the absence of video- camera device, a scheme of arrangement of the victims' at the scene is also useful. In the same time the medical personnel must be psychologically prepared to be interviewed as a witness if necessary. It is a task generally seen as unpleasant and burdensome. The medical personnel must be must be aware of the fact that, the same way doctors must perform their duty in approaching a disaster, the judicial bodies also have specific tasks that must be performed in the same way in order to manage the same incident..Medical staff cooperation and the statements it provides for the judicial bodies are essential to ascertain the truth about what happened. The hearings are not aimed at the emergency personnel, but, if we are discussing an offense -liability of those responsible. At the hearing, the medical staff must only declare the truth, as much as he can remember, without distorting the facts. In this way he will state the truth and will avoid prosecution of false testimony or other serious crimes.

II. Practical problems concerning the identification of survivors. The contribution of medical services at the family reunion

An issue that interferes with achieving medical intervention in case of catastrophe is to identify the survivors who are unable to identify themselves (children, patients in coma patients with traumatic shock). The manager of the medical intervention will foresee this situation depending on the mechanism of the incident, the type, nature and number of victims according to

the procedures set forth in the Red Plan will apply the necessary measures in order to identify survivors, with the purpose of reuniting the families and restoring family and social

This can be shown by studying the events produced by Hurricane Katrina in the U.S. (4). The experience of the emergency services has proved that families and loved ones were separated, which created problems for medical and non-medical emergency services. In some cases, the rescuers sought primarily to transport children in safety, then wishing that in a short period of time, be reunited with parents. However, confusion arose as to who and to what shelter he was taken. The same was true for hospitals, in terms of patient discharge or transfer patients to other locations. This has created as much or even more anxiety among the victims than the hurricane destruction and the loss of property. One news agency reported that "there is no centralized system for tracking the patient. Without automated systems, it was almost impossible to know where the evacuees were. Also, the federal government had no clear statement of the number of people evacuated and the reunification of families was difficult. The data was marked at the command centers by the state control and by organizations like the Red Cross (4).

The identification of disaster victims at the site can be very difficult, sometimes impossible, immediately after a disaster or catastrophe. Most of the injured people will make a "triage" to the nearest health facility to which they are familiar with), especially if the disaster is large and can not call for emergency help. In disasters with a single location is more likely to perform the triage of the victims by emergency medical services (EMS). In this case, several agencies may be involved with responsibilities in emergency situations.Two golden points is recognised at that moment:

1. Data collection and integration into a system, performed by emergency medical service (EMS) arrived first on the scene.
2. A data portal that will provide information necessary for identification.

Data will be transmitted to the services that will retrieve the victims later.The usefull system design should provide:

- write down the patient's identification data: name, birth date, gender, triage number, address, phone number
- unique identifier for each patient that has entered the system
- use a labeling process or implement a unique identification number for each patient.
- writing data for people without an identity: female person unconscious without wallet
- wntering data on patients in several sequences throughout care: immediately ,(EMS) at the time of the triage, at the Emergency Department, in the clinic.
- writing data regarding the condition of the patient: GCS, vital signs, main symptoms
-marking the place where the victim was found and where he was subsequently transported.
- updating the data every 24 hours.

All data collected will be stored into a computerized system either by volunteers or by specific organizations (Red Cross, Voluntary Service, Population Register Services or representatives of the Police). The database should allow:

- users from different locations to view data in real time (as far as real-time data are entered and the computer networks operate).
- protection of privacy and confidentiality of patient data in accordance with the requirement of the National Health Authority, for example, in the USA, guides like the Health Insurance Portability and Accountability Act.
- classified data (eg, password protection and encryption) on any device if the protected information about the patient are stored.

It must be taken into account thet as the number of patients increases, the number of agencies involved in disaster situations, emergency medical services (EMS) transport units, the paramedics, and hospitals that receive patients also increases, therefore, the chances of not being able to track patients also increases. The National Medical Disaster System (NDMS) TRAC2ES U.S. uses a system, which writes down the patients that were transferred to various hospitals around the country. U.S. EMS systems explore ways to track down sick and injured patients who are not safe and healthy (Self and Well) or not in the database TRAC2ES (3). In this conditions a patient's initial registration could be achieved by adding information on a standard triage tag. It is wise to have a sufficient number of such labels at the emergency services prepared to intervene in situations of disaster and that there is only one registration procedure for the patients.

Conclusions

The responsibility of identifying and managing victims in disaster situations or

catastrophe belongs to such organizations like the Police, the prosecution, the rangers, the fire department, with the involvement of the emergency medical services.

It is noted the need to a well known procedure for victims identification in case of disasters and catastrophe, as well as importance of standardized forms for emergency situations involving multiple casualties.

It requires the existence of a national computerized data collection for disaster and catastrophe situations and for mass accidents.

The need of professional involvement in identifying victims (police, ranger) and of the voluntary (e.g Red Cross, students, etc.) should be recognised as a standardized condition and integrated training of emergency teams should take that into consideration.

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