

Pawłowski Witold, Goniewicz Krzysztof, Goniewicz Mariusz, Czerski Robert, Lasota Dorota. Tasks of the hospital emergency department during disasters. Journal of Education, Health and Sport. 2018;8(5):60-69. eISSN 2391-8306. DOI <http://dx.doi.org/10.5281/zenodo.1237718> <http://ojs.ukw.edu.pl/index.php/johs/article/view/5456>

The journal has had 7 points in Ministry of Science and Higher Education parametric evaluation. Part b item 1223 (26/01/2017).

1223 Journal of Education, Health and Sport eISSN 2391-8306 7

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The authors declare that there is no conflict of interests regarding the publication of this paper.

Received: 05.04.2018. Revised: 12.04.2018. Accepted: 30.04.2018.

## **Tasks of the hospital emergency department during disasters**

**Witold Pawłowski<sup>1</sup>, Krzysztof Goniewicz<sup>1, 2</sup>, Mariusz Goniewicz<sup>3</sup>, Robert Czerski<sup>2</sup>,  
Dorothy Lasota<sup>4</sup>**

**<sup>1</sup> Medical University of Warsaw, Department of Disaster Medicine**

**<sup>2</sup> Polish Air Force Academy, Faculty of National Security and Logistics**

**<sup>3</sup> Medical University of Lublin, Department of Emergency Medicine**

**<sup>4</sup> Medical University of Warsaw, Department of Experimental and Clinical  
Pharmacology**

### **Abstract**

Hospital emergency departments with emergency medical teams are the basic units of the National Medical Rescue System. Hospital emergency department is an independent organizational unit within the meaning of the hospital health care facilities, providing the benefits of health care that persons in a state of sudden health threat, satisfying the Requirements of the Act of 8 September 2006 about the National Medical Rescue System. In research presents the procedure of dealing in the situation of a disaster of the hospital emergency department. Characterized in details the mobilization personnel system, the role of

hospital emergency staff and hospital staff jobs in emergency department in the situation of disaster.

**Key words:** hospital emergency department; emergency medical; disaster.

## **Introduction**

The State Emergency Medical Services was created to carry out the tasks of ensuring state assistance to any person in the state of sudden health threat created in Poland. The units of this system include hospital emergency departments and emergency medical services [1]. Minister of Health of 15 March 2007 on hospital emergency department defines the tasks, organization, minimum equipment and minimum human resources Emergency Departments, as well as the technical conditions and specific requirements for the location of the Emergency Departments in the structure of the hospital [2]. The main tasks of the hospital emergency department include: initial diagnosis and the immediate commencement or continuation of treatment of people able to sudden health threats - for whatever reason, eg. Internal medicine, Traumatology, toxicological - initiated by the rescue teams. The aim of a rapid diagnosis Emergency Departments is to determine the severity of injury victims. While the stabilization of the general condition of the injured is carried out primarily by inhibiting the processes of the pathophysiology of early death, to stop the development of a shock, pain control, pre-provision injuries and maintain basic life functions. In Emergency Departments, the preparation of victims to further stages of treatment and decide on the type and how to transport them to other departments of the hospital specialized in the field of healthcare services necessary for emergency medical or trauma center. Proper implementation of these tasks determines the size reduction of mortality and disability for victims of accidents and mass disasters. [3] In order to maintain the proper functioning in the event of mass events, each emergency department should have an appropriate procedure to be followed also called the emergency response plan. Such a plan should include, above all, information on potential threats in the area of Emergency Departments, work organization Emergency Departments, as well as the principles of security and logistic arrangements for cooperation with rescuers and cooperating units of the State Emergency Medical Services system. Procedure in the event of mass events Emergency Departments should be compatible with the emergency response procedures of other departments of the hospital specialized in the field of healthcare services necessary for emergency medical and provincial action plan National Emergency Medical Services system [4].

In preparation for the Hospital Emergency Ward to accept an increased number of people injured begin at the moment the alarm about the crash of the Emergency Notification Center or the Emergency Response Center. Notification shall be adopted by a nurse or

paramedic on duty at any given time in the Emergency Departments. Receiving a notification to establish a task name of the person notifying, the phone number from which the applicant is calling, and the function performed by that person. Then the person receiving the call immediately forward the information to the applicant and contact the doctor on duty Emergency Departments. From that moment until the organization "hospital crisis staff" Emergency Departments doctor on duty is responsible for conducting rescue operations properly in Emergency Departments and throughout the hospital, and serves as the main emergency physician for the duration of the rescue operation throughout the hospital. After receiving information about the crash doctor on duty notified Emergency Departments confirms the authenticity of the report by calling the designated telephone number and establishes the expected number and age of the victims of the disaster. In addition, it attempts to determine the nature of the damage and the estimated time of arrival to the victims Emergency Departments [5]. Due to the massive influx of victims and provide assistance simultaneously at many people it is not only possible to isolate the area Emergency Departments and personnel employed there only to carry out rescue operations. Therefore activation of employees is also subject to other branches located in the hospital. This means that at this point is started by a doctor Emergency Departments whole system of emergency hospital in accordance with a plan of rescue operations, which includes the mobilization of available on-site hospital staff which means managing to work in the Emergency Departments after two employees from each of the Department of the hospital, which they are respectively doctor and one nurse. Immediately is also a doctor on duty for Emergency Departments, informed the director of the hospital, the head of Emergency Departments and ward nurse Emergency Departments. Doctor Emergency Departments shall then inform the doctors performing duty in various hospital departments, who are responsible for the immediate notification of managers their clinics. Managers of clinics turn first phone mobilize medical personnel who are outside the hospital, and that could reach individual clinics hospital within one hour of receiving their summons to appear at the hospital. To enable effective and continuous work in the Emergency Departments, after determining the approximate number of people affected, which can be found in the area Emergency Departments doctor on duty decides on the need to mobilize the necessary number of medical staff employed on a permanent basis in Emergency Departments. Notification is based on a cascade of employees plan notification Emergency Departments. This is a pre-prepared list of workers who can reach the hospital, on which are listed the names of persons, their telephone numbers, and the likely time of arrival into the Emergency Departments. List of employees is prepared in a

manner indicating the order calls individuals. The first person on the list for the staff is average ward nurse, and a list of doctors manager of Emergency Departments. Their task is to rely on the notification of the next four persons from the list. Each of these persons shall notify the next four and so on until the last employee on the list, or to a fixed duty by a specific number a list of doctors manager of Emergency Departments. After arriving at the place appointed director of the hospital, "hospital crisis team", which includes the Deputy Director, Heads of all departments of the hospital and Plenipotentiary Protection Specialist Hospital. "The hospital crisis team" takes over the part of the organizational tasks of the doctor on duty Emergency Departments and is responsible for ensuring the security of the hospital. In particular, persons appointed to the staff responsible for safeguarding the proper functioning of their departments and the maintenance of order and obstruction of access roads to the hospital, securing escape routes, patency routes inside the hospital and strengthening the protection of the hospital, providing parking and access for the arriving personnel, families of victims and journalists on one of the streets adjacent to the hospital. These tasks are completed in close cooperation with local security forces. In addition, staff movement protects the injured inside the hospital and secondary evacuation leads to other medical facilities, mobilizing internal transport also drawing on funds from the neighboring departments of the hospital, Deputy director of the hospital and department managers are responsible for the appointment of a spokesman, the person responsible for providing information to the media on a regular basis and the families of the victims of the disaster. The next task is to ensure their safety oversight personnel and injured by the appointment of managers and segregation admissions point and the point of evacuation. IT managers are also responsible for keeping the register of victims and simplified medical documentation, mobilizing volunteers and volunteers and assign them to help steady the hospital staff. This is achieved also thanks to the possibility of the existence of cooperation Departments of Emergency Medical Rescue direction at the Medical University. Are launched an additional means of communication in the form of-hospital wireless radios gathered in larger quantities in the event of the failure of the existing infrastructure. Developed point is psychological support and persons appointed on the basis of a list drawn up entitled to the provision of this assistance psychologists there to help the victims and their families and rescue teams. Staff helps in establishing permanent rescue teams (doctor emergency - paramedic, surgeon - nurse, internist - a nurse), and their number. Subsequently, "hospital crisis team" takes on responsibility for commissioning hospital logistic resources with the launch of procedures for facilitated access to stocks of hospital providing technical and medical equipment from the

neighboring branches, start medical supplies and personal work to change the system all departments of the hospital system working hour [8.9]. In throughout the hospital is run mechanism that allows for expansion of the base bed using immediate cessation of elective admissions, adapt the rooms located in different departments, such as conference rooms, the rooms for patients requiring oxygen therapy, discharge some patients do not require hospitalization absolute, after having drawn up a list of evacuees from the hospital patients. To expand the base of available bed in the area of Emergency Departments evacuation point is created, the charge of which is to form the head Emergency Departments for patients transported to other facilities after initial supply [10]. Doctor emergency Emergency Departments organizes segregation of imported and arrive alone are victims of the disaster. Segregation is carried out before the entrance to the hospital in the drive for the carriages on a rapid assessment of the system affected by segregation "START" [11]. The victims are identified during segregation and color codes are allocated to the card segregation. Each victim is assigned one of four colors - red, yellow, green and black - which, in the respective bands or patches are placed in a visible place on the body of the victim. In addition, each victim receives a card with segregation placed on the identification data, code segregation orders entered on medical, procedures, parametric and graphic description of the condition of the patient, a rapid SAMPLE history and other distinguishing at any given time information, such as instructions or decontaminating the transport [12]. This card is in an easily accessible and clearly identifies the victim placed with them by hanging around his neck. The card is also distinguished field to enter any contact to the next of kin of the person. The names of all the victims of the disaster along with the color code indicating the medical segregation are recorded on the registration of patients, and a large array of parties [13]. After the segregation of these people are directed to specific sectors Emergency Departments, which are marked with the appropriate color, or they are routed directly to operating rooms or intensive care units. Code red means the necessity of immediate help in life-threatening condition and Emergency Departments include areas of treatment, and the initial intensive care. Code yellow indicates a person with serious injuries requiring urgent hospital treatment. Those affected areas are directed to the treatment and consultation within the Emergency Departments. Code green is the minor injuries not life-threatening and do not require urgent hospital, and the victims are referred to the waiting room, in the area of elective admissions and observation area. On the basis of personal data and the code is registration of victims of the disaster on the board and card parties register victims. Doctor emergency periodically carry out continuous assessment of victims of segregation of each group, which is present in

the areas of Emergency Departments and decide on changes to the code and guidelines for diagnosis and treatment. Black denoted by color code are dead, who are immediately transported to the purpose of dissecting the temporary storage outside the rescue [14,15]. Doctor emergency department is also responsible for organizing in a separate place point pediatric care and separating the necessary medical staff there. Within this point there is also a place for healthy children of any people injured in the crash. The task manager Emergency Departments as soon as possible after arrival at the hospital to take over from the doctor on duty Emergency Departments management in terms of organization of rescue operation within the Emergency Departments. In agreement with the "hospital staff of crisis" determines and prepares extra points receptions and segregation of patients in the Emergency Room Team Clinic, House of Gynecology and maternity located in separate buildings, and additional space in the clinic of trauma surgery, where are targeting people with green code of segregation [16]. Emergency Departments manager supervises compliance procedures in Emergency Departments in the event of a disaster by medical personnel, analyzes and modifies this procedure on a regular basis based on comments and suggestions of the staff. Belonging to his duties also included the organization of accommodation and messing for the staff person Emergency Departments. Through its support or replace most burdened by work teams [17].

Procedure of the victims in the event of a disaster takes into account the need to familiarize health workers with the possibility and the necessity to implement the simplified standard medical procedures. These standards beyond the first Triage also includes in the order of a preliminary assessment which is composed of assessment of the state of consciousness, respiratory, cardiovascular and assessment of the central nervous system and the initial procedure of Scheme ABC unit [18]. Then performed a quick study of traumatic BTLS and based on the data of the above-mentioned studies, a decision and sets priorities for action for individual patients. It is necessary at this point aware of all doctors in the decision on withdrawal of treatment cases is not promising survival. Arriving patients not requiring immediate assistance are only temporarily protected wounds and other injuries made by the pre-surgical evaluation, stabilization of dressings, and possibly sedation analgesia, immediate surgical development in justified cases, anti-shock protection [19,20]. As far as possible in the procedure then lists the additional tests and instrumental diagnostics which in this critical situation include blood sampling for basic research laboratory, performing ECG, ultrasound

and X-ray justified in trauma cases. Only then it is possible to transport the injured to the Emergency Departments at individual clinics,

## **Conclusions**

Every disaster and the event of a mass is for the hospital, emergency department and hospital personnel in the event of a crisis which must be properly prepared procedure. The procedure should include information on potential threats in the area of Emergency Departments, Emergency Departments work organization, logistics and security principles of cooperation with ZRM and cooperating units of the State Emergency Medical Services system. Procedure in the event of mass events Emergency Departments should be compatible with the emergency response procedures of other departments of the hospital specialized in the field of healthcare services necessary for emergency medical and provincial action plan National Medical Rescue System. As part of the prepared solution should also find a description of the efforts to prepare staff for such an event. It is necessary to carry out the training of medical staff for Emergency Departments according to the current standards of the European Resuscitation Council and the training procedure in case of disasters as well as to familiarize with the plan of action. Any change in procedure must be immediately disseminated to all persons to whom this procedure may apply to the whole and implemented in training. Emergency Departments Every employee must be familiar with the cascade system notification, and any personnel changes and details should be kept up [21,22].

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