

## REVIEW PAPER

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# Belgrade model of emergency medical aid organization in mass casualty treatment

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## Summary

Mass casualty incidence is caused by a large number of people in need of Emergency Medical Aid (EMA) and when that number exceeds the capacities of medical services. Under these conditions, the same medical services are unable to evacuate and treat the patients. It is not defined only by the number of the wounded but also the occurrence spot, the time of the day/night/year, and eventually the access to the medical institutions. Although we neither know the occurrence incidence nor its range, it is to be surely confirmed that it is to occur sooner or later. Hence, time and advantage are to be benefited from, which results in need of being prepared in advance at national, regional, community level as well as at level of individual medical institutions. Preparations involve making plans and protocols, staff educations, equipment preparation all at level of individual institutions and written orders arrangements which precisely define personal responsibility in mass accident occurrences. Herein paper is to present Belgrade model of urgent medical aid organization in mass accident treatment. *Anestezjologia i Ratownictwo 2008; 2: 221-225.*

*Keywords: mass accidents, treatment, organization, urgent medical aid, Belgrade model*

## Introduction

Terrorist attack is on top concerning other mass accidents. It is the question of time when the out-break of that kind is to break out in Serbia. However, the very life style of today takes risks of mass casualties. Serbia is the country not far from potential mass accidents: Polish bus accident in the vicinity of Slankamen, Novi Sad highway, on July 11, 2008, pesticide warehouse blast at the plant Galenika on April 6, 2008, a 3.500 - ton-munitions explosion at the warehouse in Paracin on October 19, 2006, cistern explosion and a 2-ton-outflow of ammonia on Zrenjanin highway on May 27, 1998. The treatment essence is to **ORGANISE** [1]. Depending on topography, urban features, accessible equipment

and staff, every single Urgent Medical Aid is to have its own protocol which would enable the utmost solution to organizing in mass accident treatments.

## Mass casualty treatments

The treatment of the casualties in mass accidents differs from individual patient treatment and this refers to the very number of the wounded as well as treatment quality. Individual patient treatment is not possible which means **minimally acceptable treatment** required in the course of saving the life of a patient. The objective of mass accident treatment is to save the largest number of patients' lives possible and, therefore, their recovery with least disability. Mass

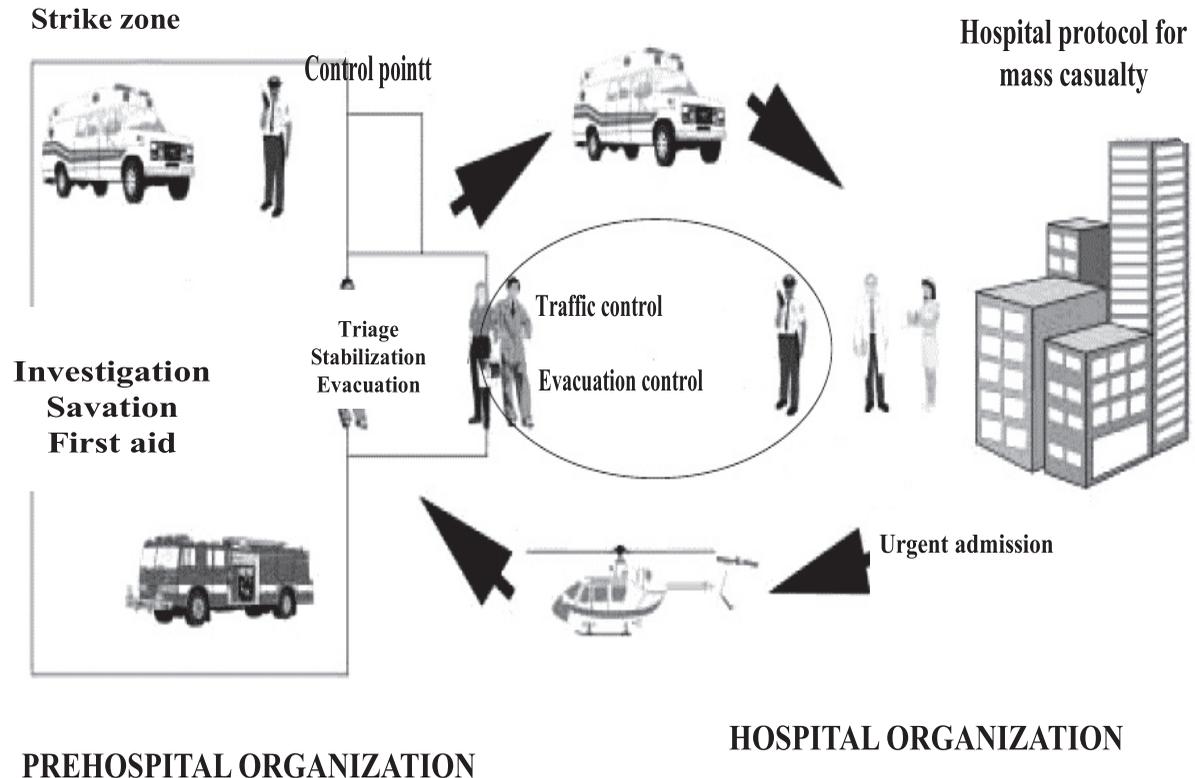
accident treatment has been presented through *Chain of Survival* [2].

### Chain of Survival

Chain of Survival means involving a variety services and their activities in mass accident treatments with the aim to speed accelerating, efficiency and treatment with minimal life loss. Chain of Survival commences on the very occurrence spot where initial estimation is made, the wounded detection and extrication followed by supportive and immediate medical aid. The transportation is the next level an in compliance with successive and inevitable order which leads to an appropriate hospital, admission and eventually treatment. The chain is to terminate with the stabilization of the patient when his/her life in not in danger (Graphic 1).

### Organization of out-of-hospital services in mass casualty treatments

There are three emergency service departments in Serbia participating in urgent cases treatment (police, firefighters, EMA), together with other services joined needed in a specific situation: explosive experts, divers, climbers etc. In developed countries, services for urgent cases have common dispatcher center available by dialing a universal number: 911 in the USA and 112 in the European Union. A well-trained common dispatcher is at service by dialing a universal number and the person in charge decide upon what service department and kind of vehicle are to be sent to the occurrence spot. There is neither universal number nor one dispatch center in Serbia, but short and easily remembered numbers are available intended for dialing emergency service departments: 92-The Police; 93-Firefighter Services; 94-Emergency Medical Aid.



Graphic 1. Chain of survival in mass casualty treatment

## Functional aspects of dispatch center

Dialing EMA dispatch and informing on mass accident incidence, might come from the general population, the professionals being in charge of emergency case treatment and accidentally finding himself on the occurrence spot, the professional in the field of featured specialization (e.g. chemistry plant executive, airport executive) and furthermore, other emergency service sectors such as the police or firefighter brigades). The functional dispatch aspect is to verify the provided information; to be provided with information on the problem significance, an eventually activate the mass accident protocol. The final assignment of the same is to inform all emergency service sectors.

### I Functional aspects of dispatcher prior to mass casualty announcement

On a dispatcher call reception referring to the accident having taken place, the first problem the dispatcher is to cope with is to establish the validity of the information provided.

#### A. Validity of information provided

**The call might be false.** EMA in Belgrade receives a number of false calls, most frequently by the young who consider it as being entertainment. The crew of medical assistance is sent to the occurrence spot and in most cases finds nobody there. State-of-arts equipment enables modern dispatch centers to identify the call with computer screen identification of the phone number, address and the name of the caller.

**Unjustified call.** EMA in Belgrade frequently receives calls by *conscientious citizens*, who randomly become eye-witnesses of accidents.

**Wrong information.** There are cases when the callers are unable to identify the accident taking place and to estimate the seriousness and significance of the situation which results in their inflating or diminishing the accident significance.

**Stress.** In cases of casualty accidents, the eye-witnesses are in a kind of shock. On these occasions they usually shout calling for help and do not give the valid information on what has happened, where and how many wounded there are.

On receiving the call, prior to casualty accident protocol activating, the dispatcher has got to verify the accident together with its exact occurrence spot and registration. If there is one person calling for help, she/

he is supposed to be summoned to be talked to. In case of a few people calling for help, it is to be considered as the accident verifying. The call is thoroughly verified in case of the call made by one of those who are employed within the medical service departments or institutions. The Emergency Medical Aid dispatcher has to make the contact with the police and fire brigade dispatchers so as to get to know whether they have received the same call or not. The information might be provided through media with their presence on the occurrence spot before EMA crew. In case of the information being valid, the dispatcher is to send away the so-called *scout team*. The *scout team* initially verifies the accident and only then summons for more aid. This additional crew aid is to be in advance informed on the detailed event referring to the possibility of mass casualties.

#### B. Providing information on the problem range

**Initial estimation** of the occurrence spot comprises a variety of data, which is to be provided so as to make a real survey on the accident range: Accident location, the time of the accident, kind of incident, the number of casualties, further potential risk (blaze, flood, toxic materials etc.). On the basis of this evaluation, the person in charge makes a decision about announcing of the mass casualty state as well as activating the very protocol. The person in charge within EMA in Belgrade might be the director, department executive or some another person.

### II Dispatcher function after mass casualty announcement

On receiving the information provided by initial evaluation of the first crew found themselves on the occurrence spot. The person in charge announces the state of mass casualty and activates the very protocol. The assignment of the dispatcher is as follows:

- The constant communication with the main checking point on the occurrence spot;
- Directing other help as for people, equipment and vehicles to the occurrence spot;
- Making the contact with hospitals so as to activate their own protocols relating to mass casualties;
- Constant information outflow on capacities of hospitals due to making the right decisions about transportation: chaotic transportation of the casualties from the very accident spot to fully equipped hospital might result in transferring mass casualties from the occurrence spot to the very hospital halls.

- Mobilization of the employed, so as to succeed in increasing the number of accessible crews.

**The protocols of Individual EMA involve organizing stand by duties [3]. According to the daily and monthly time-table of a determined number of the employed, people in charge are to be ready at any time to act in a case of mass casualty. The calls are to be sent by pager, telephone or mass media.**

**Treatment of mass casualty on the occurrence spot.** On arriving of the first crew at the mass casualty spot, the person with highest level of responsibility is to take over the control and is, therefore, the most significant and responsible person of the service department, up to the moment of the person with higher title. Belgrade EMA consists of practitioner team with practitioners, medical technician and driver and in case of this teams initial arrival, the practitioner is supposed to take over the control.

**Treatment procedures on the occurrence spot.** From the initial arrival of the first team to the occurrence spot, all further procedures are clearly defined and carried out in compliance with, in advance determined order steps. These steps are intended for enabling safe and efficient work of emergency services sectors.

1. The assignment of the first team having arrived on the occurrence spot is to carry out the **initial estimation**.
2. After initial estimation having been carried out, the **call is directed to the dispatch center**.
3. **Organization of the occurrence spot** depends on: incident location, terrain, the number of the casualties, etc. The easiest way to organize is to make the sketch with basic topographic features of the region, potentially risk spots, the location of the casualties, access roads, cardinal points and on the basis of the previous ones it is to be determined the check-points. On the very mass casualty occurrence spot, the zones together with check-points are to be organized: a) the main zone; b) the zone with the limited access; c) the zone for media; d) commanding check-point; e) medical facilities; f) evacuation check-point; g) decontamination check-point.
  - a) **The main zone** is located around the mass casualty occurrence spot. This is the zone with high risk for the so-called secondary accident injury. The expertise in the field is to determine its rate and seriousness. This zone is restricted

and general population together with the participants of some emergency services sectors are not allowed to enter it. Only the teams for highly urgent cases and saving are to work within the frame of the zone. Their task is to make the spot as safe as possible, to find the casualties, to carry out their extraction and evacuate them to the check-point.

- b) **The zone with the limited access** is established around the main zone. Within it, all services of the emergency sectors function, and the boundary of the same one is governed by the police and is not accessible neither to general population nor media. This zone has the road needed for the ambulance to come to sanitary check-point, so as to make easier to transport the patient to the nearby hospital. The road via this zone is supposed to be closed for regular traffic and available at any time for ambulance access.
- c) **The zone for media** is located beyond the boundary zone with a limited access, and it has a two parts. The first one is to enable media to cover communication from the safe place, another one is to make itself the protective shield for another zone intended for dividing passers-by and eye-witnesses from the very occurrence spot as well as to decrease the possibility of their further injuries.
- d) **Commanding check-point** is the central part of the thorough operation and it involves the representatives of all emergency service sectors.
- e) **Medical facilities** are organized with a limited access in the vicinity of commanding check-point. Within it, the triage is carried out and stabilization procedures in patients, prior to hospital evacuation. Taking into consideration the seriousness of injury in patients, they are divided by the system of triage into bands which results in dividing the very medical facilities into segments where the patients with the same triage band are to be treated.
- f) **Evacuation check-point** is occasionally part of the sanitary check-point and within it, the patient are admitted and settled down up to the moment of transportation induction directed by the practitioner. The carriers are to carry the injured to the ambulance. In case

of a larger number on casualties, the evacuation check-point is to be arranged on the opposite side of triage sector. There, the stabilized patients wait to be transported by the ambulance.

- g) **Decontamination check-point.** In cases of unconventional mass casualties prior to started, there is the decontamination check-point situated between the main zone and the zone with the limited access. In Belgrade, the very decontamination is carried out by the Service for Decontamination and Detoxification, the unit of the Military of Serbia, situated at Belgrade Military Medical Academy.
4. When the **safety of the occurrence** spot is taken into consideration, we talk about safety measures as well as safety estimation. Safety measures are to be applied due to protective segment of the injuries, rescuers and general population against indirect and/or potential risks (blaze, prospective explosions, toxic materials etc.). The measures might be: **direct** – blaze quenching, protective overall, evacuation of the population etc., and **preventative**- organizing the first three zones on the occurrence spot and the range as well as, the shape of the zones will depend on the kind of incident, topography and wind. **Evaluation of the mass casualty occurrence spot** involves the analysis of the occurrence spot and establishing the fact that there is no real danger to the saviors. Regardless the situation, the following postulate is to be respected: **the mass casualty occurrence spot is to be achieved never before detailed analysis as well as established safety.**
  5. **Commanding check-point** is made along external side of the main zone. It might be the ambulance, tent or available located building. Some services have special commanding vehicle. The representatives of all involved services are situated within the controlling check-point. The members of the controlling crew are choosing among themselves the coordinator who is responsible for the entire mass casualty occurrence spot. It is frequently the police representative, but it might also be somebody who is familiar with the problems concerning the current situation (airport manager, the army representative and alike).
  6. **Radio communications.** The basic idea referring the common commanding check-point for all

involved services is a quick information exchange. Not only the terrain teams communicate via radio communication but also men in charge with dispatch center as well hospitals, which means that the entire organization and successful work depend on the mutual communication. In the course of organizing the very mass casualty occurrence spot with determining where the check-points are to be located, the utmost significance is to establish the best radio communication.

7. **People and traffic control** is one of the safety measures and the function which is to be carried out by the police themselves. People and traffic control is carried out by establishing the safety zones around the mass casualty occurrence spot and also by keeping its boundaries. In case of exceeding the police service capacities, special units or military services should be immediately involved.
8. **Detecting and helping the injury** is the function which is to be carried out within the main zone. The objectives of these actions are: detecting the injury; state estimation of the injury; first aid; evacuation and transportation of the injury to the collective centers or medical facilities.
  - a. Detecting the injury might be easier and more efficient if the firefighter brigade man in charge divides mass casualty occurrence spot into smaller zones which should help each team on the terrain. It is necessary, whenever possible, that the exact number of people having experienced the accident should be provided (e.g. the number of the bus passengers, the number of the plant workers).
  - b. Initial triage [4]. Since the firefighter brigades establish the first contact with the injury, they are required in same countries to carry out the initial triage they have been trained for: the first aid, the way of replacing and transporting the injury. The same brigade are required in other countries to appropriately place the patient on the stretchers and transportation to the collective center or medical facilities in compliance with a certain and established order, regardless the rate of the injury in the patient. Their triage is simplified and furthermore, they are classified into: *red* category – the patients with a high rate injuries; *green* category – the patients with less serious injury and might wait; and eventually the so-called

*terminal patient*, also being able to wait for the first aid. The utmost significant point for the rescue teams is **to distinguish the alive from the dead** [5]. Although this sounds simple, this assignment is much too difficult for a variety of reasons: the patients are covered with blood, dust and filth, they are sometimes in unconscious state, the climate conditions might be severe. This assignment is more difficult to cope with, when we take into consideration that people who might find themselves on the occurrence spot are not medically trained and are inexperienced. This is the skill to be focused on, for it is unjustified to evacuate the dead whereas the alive and seriously injured wait for the transportation. It is also unforgivable to classify the alive as being dead.

- c. The first aid support. Blood stoppage, respiratory ways release and spine break stabilization are some of the procedures which should be in domain of skills concerning rescue teams. Cardiopulmonary resuscitation is not carried out in the main zone of mass casualties due to taking a long time for this procedure.
- d. Evacuation and transportation of the injury [6]. The ultimate goal of the work within the frame of the main zone is to evacuate all patients to medical facilities where they are to be provided with emergency medical aid and later, to be transported to hospital. Rescue teams are divided into the sectors of those involved in triage and bearers. If the number of the injury is not higher than the number of the rescue teams, the solution to the problem might be found within the main zone where the triage is not to be carried out, but the patients are to be transported to the collective center. On the other hand, if the number of the injury is higher and after establishing the place safety, those who are involved in the triage procedure are to commence with estimation and detection of the patients. Immediately after triage having been carried out, the bearers are those who take the injury out of the main zone respecting the established procedure order which have been made by people involved in the triage. Unless the safety of the zone is established,

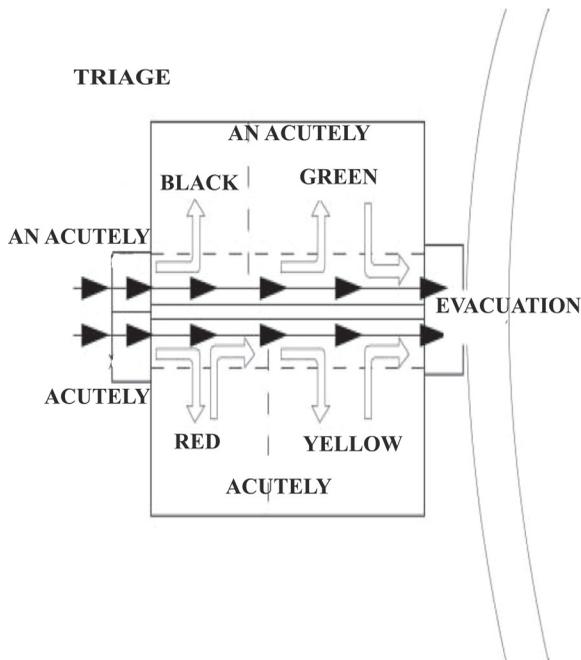
the **collective check-point or collective centers** are to be organized [7]. In that case, the triage is not supposed to be carried out on the initial contact with the injury, but they are to be evacuated to the collective center where the initial triage is to be carried out together with first aid and organizing transportation to the medical facilities. The collective center is under the semi-professional medical team and volunteers as well.

9. **Triage and stabilization** [3,4]. In case of mass casualty, a few number of the injury require the urgent hospital treatment. The rule of the *gold watch* refers only to the patients with internal bleeding and they are to be treated urgently by a surgeon. Others might be provided with the initial medical aid on the spot which makes it possible to stand the delay in evacuation. The transportation of the injury should be carried out with controlling and planning in advance, corresponding with dispatch center and appropriate hospital institutions. This concept might function if there are: a good triage, well-trained medical teams, a good radio-communication of the commanding center on the terrain with hospital institutions; a good coordination of all services involved. The stabilization on the terrain is carried within the medical facilities which are organized 50-100 meters from the boundary with the main zone. The functions of the medical facilities are as follows: the medical triage; stabilization of the patient within the premises for treatment (intubations, tracheotomy, chest drainage, shock treatment, analgesia, liquid compensation, immobilization, bandaging); transportation of the patients from *red* to *yellow* triage category; organizing the transportation of treated and stabilized patients to appropriate, and in advance informed hospital.

**The structure of the medical facilities:** Depending on the range of mass casualty and the number of the injury, the Basic or Standard model of the medical facilities might be organized [8].

**THE BASIC MODEL OF THE MEDICAL FACILITIES.** There is one, easily detected entrance leading to the premises for triage and where two patients might be placed. Behind these premises, there are the premises for treating the patients and there are divided into two parts: larger part belongs to acute patients (*red* and *yellow*) and a smaller one

belongs to *green* and terminal ones. On the opposite side to the entrance, there is the exit.



Graphic 2. The standard model of the medical facilities

**THE STANDARD MODEL OF THE MEDICAL FACILITIES** (Graphic 2). There are two entrances: one is intended for acute patients and this one is marked by the red flag waving, and another one is for non-acute ones, marked by the green flag. There are also two mutually connected triage premises leading to the acute premises for treatment which is divided into red and yellow part; the red one is closer to the premises for triage. On the opposite side, there is the entrance leading to the premises for treatment which is connected with triage premises. By the triage premises there are the premises for terminal patients and a little bit farther there are the premises for *green* patients. Each of the premises for treating patients is marked by the flag of the appropriate color. Behind the premises for treating the patients, there are the premises for evacuation, where the stabilized patients wait to be transported to the ambulance and then to hospital. Patients are carried through the appropriate entrance. Only two patients should be in the triage premises at a time. The patients are triaged and labeled and then transported to the

premises intended for their treatment, and later stabilization. After being stabilized, the patients are transported to the evacuation premises and only then to the ambulance. **The movement of the patients is to be carried only in one direction!** [9]. The medical facilities together with their team are expected to admit 25 patients. 73 m<sup>3</sup> is the smallest room required for the medical facilities.

10. **Controlled evacuation** involves procedures which are applied so as to transport the patients safely and effectively to the suitable medical institution [10].

#### Preparation for evacuation:

- a. In case of one hospital in the region, the chief of the medical facilities is supposed to make a direct contact by radio or phone with its commanding center
- b. When there are more hospitals available, the chief of the medical facilities informs the department head of the medical emergency aid about the state of the patient. After choosing the hospital according to state of the patient, the head of the medical emergency aid, summons for chief of the commanding check-point, and gives the permission for the transportation of the patient.
- c. The chief of the medical facilities will call the chief of the transportation and require appropriate means of the transportation, escort, and the direction where the patient is supposed to be sent away.
- d. The chief of the transportation will send the ambulance and inform the person in charge within the evacuation premises, about the exact time of the arrival of the ambulance.
- e. On the ambulance leaving, the chief of the transportation informs about it the head of medical department.
- f. Before being sent away, the patient is to be checked: pulse, breathing, and homeostasis; the position and fixation of the settled tubes, braunila, catheters and triage card is to be visible.

#### Evacuation procedure

Evacuation of the patients from the mass casualty occurrence spot to hospital is to be under a very strict control [11]. One of the tasks of the team arriving first

at the occurrence spot is to stop the spontaneous evacuation of the injuries, having been organized by the witnesses of the accident. None of the patients must not be moved from the medical facilities until they are in the most stable condition possible, then, adequately equipped for the transportation, until the hospital, the patient is to be transported to, is informed about the arrival of the patient - the hospital crew is supposed to confirm the readiness to admit the patient and, eventually, the adequate vehicle is to be provided.

The treatment procedure of the injury in the mass casualty on the occurrence spot terminates with the ambulance arrival at the very entrance of the hospital. The ambulance stops, the stretchers are taken out, the patient is replaced to the stretchers and it is the final stage of their prehospital treatment. The crew of the Emergency Medical Aid gets to the occurrence spot as soon as possible so as to transport the next patient. Prehospital crew is not supposed to keep themselves in hospital in cases of mass casualties.

**Triage** [12] is the procedure of the evaluation and classification of the injury, in cases when there are insufficient medical capacities for the simultaneous treatment of all patients with the aim to determining priorities for the treatment and transportation. The aim of the triage is to provide **the best treatment possible to the highest number of people**. It is carried out on the basis of the following criteria: a) emergency that is, the condition of the patient; b) likeness that the patient is to survive; c) resource excess.

Triage is carried out at three levels on the terrain [13], that is:

1. Initial (first) triage is carried out on the occurrence spot prior to patient being moved. It is carried out by non-medical crew within the main zone, or semi-qualified medical crew within the collective center.

**The triage is supposed to be carried out carefully with involving all patients.** From the very initial triage is expected to identify the injury who are in need of urgent aid (red and yellow category), with the view to transporting patients to the medical facilities as soon as possible together with those who are not involved at this level (green and black category), and who can wait. One of the solutions is tie a wide ribbon of the adequate color around the hand or leg in the course of the initial triage. The bearers will be able that way to spot patients seriously injured who are urgently to be transpor-

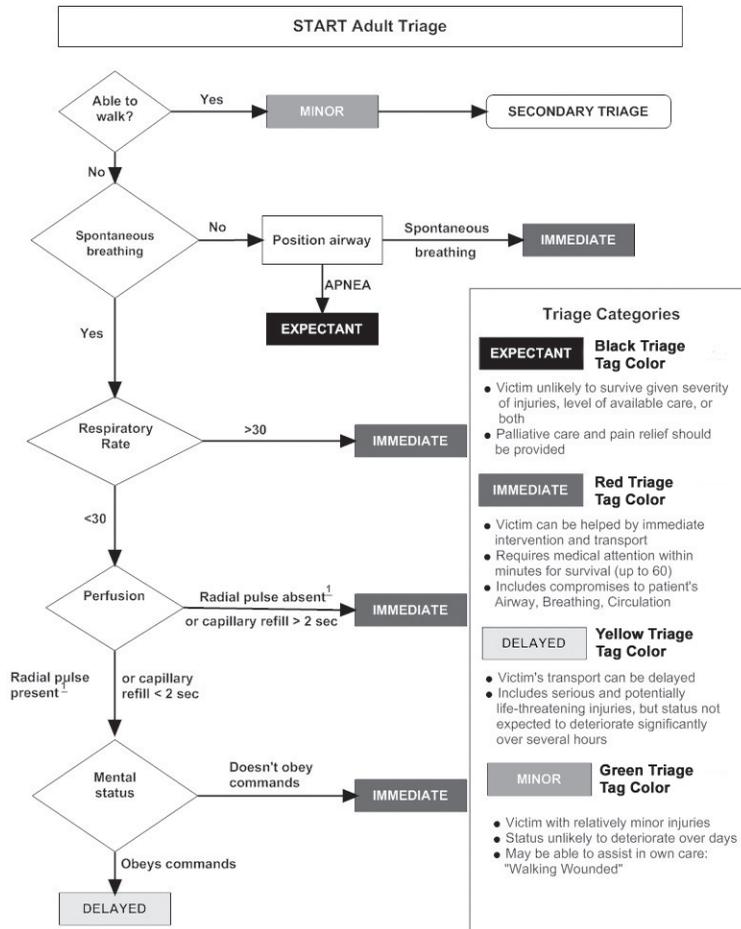
ted to the medical facilities. Initial triage commences when the main in charge of the fire brigade addresses to the injury over megaphone in the main zone: *All who can stand up should head for...* (collective center). All patients who are able to leave the main zone without any help are considered to be *green*. The nurse or the technician wait for them at the collective center where they will carry out the initial triage, provide them with first aid and the direct them to the **medical facilities**.

2. Medical (second) triage is carried out at the very entrance of the medical facilities and by the most experienced practitioner involved in triage [14]. In Serbia, this triage is carried out by the specialist of the urgent medicine and in case of his not being available, the anesthesiologist or surgeon is to be employed. The objective of the medical triage is to determine the level of treatment, required to be provided to the patient. The patients are labeled by triage cards in different colors and sent away to suitable parts of the medical facilities.

**TRIAGE CATEGORIES** [15]. In the course of triage, the patients are grouped into four triage categories, marked by colors: red, yellow, green, and black.

**RED category** is the most urgent and comprises the patients who cannot survive without emergency medical treatment, most frequently in the course of a few minutes (up to 60) but, nevertheless, who have a high chance for surviving with a prehospital treatment. This category involves: problems with respiratory ways and breathing; shock; profuse bleeding; open injuries to the chest and stomach; pneumothorax; a serious injury to the head with seizure and unequal pupils; broad surface burns of the body with complications; serious internal problem, etc. Within the medical facilities there is the possibility of the patient's being put into another category.

**YELLOW category.** The patients are hardly injured and, under normal conditions, the first aid would be immediately provided what is, in cases of mass casualties, almost impossible. Although the patients suffer serious injuries and they are in life danger, these patients are stable and this state is not expected to change a couple of hours. These patients are to be observed, and final treatment and transportation can be postponed for some time. This category comprises: burns without complica-



Graphic 3. START algorithm (www.cert-la.com/triage/START.jpg)

tions; big, open or multiple fractures; pelvis break; injury to the spine with and without impairment of the spinal cord; injury to the eye; injury to the stomach without active internal bleeding. The vein line is to be opened in all patients, they will receive infusion and will be observed.

**GREEN category** is reserved for the injury, but is still on their feet. These patients suffer from easy injuries, they are stable and they are not expected to experience worse complications in the prospective days. These can be treated later after treating more serious patients. This category comprises: easier breaks, sprains, lacerations, injury to soft tissues, easy burns; the patients without apparent injuries. These patients are to be bandaged, the breaks are to be mobilized, and are to be transpor-

ted after *reds* and *yellows* leave.

**BLACK category** is for the patients with lethal effects or those whose injuries are at highest level of the range. These patients are not expected to survive even provided with treatment accessible at that moment. Some protocols divide this category into; black – deceased and white or blue – terminal. It is carried out this way due to easier orientation, since the deceased are to be transported to morgue, whereas terminal are to be evacuated to medical facilities and only then to hospital, prior to all other triaged categories having been evacuated, under a sole condition – that these patients are still alive.

**TRIAGE ALGORITHM – START algorithm** (Graphic 3) was created in 1983 in Newport

Bridge, California. In the beginning, the parameters being used were: to carry out orders, the number of inhales per minute and capillary filling. In 1996, Benson et al. changed capillary filling with radial pulse and presented research with reference that it is more efficient method, particularly at low temperatures. Even though there are a variety of algorithms currently, their efficacy has not be proved, START algorithm is mainly used in the USA when the issue of triage at mass casualties is involved.

3. **Transport (third) triage** is carried out prior to transportation of the patients with the goal to select patients for the transportation and according to priority. If the medical facilities work well, the number of the *red* patients should be increased, which means that another triage is necessary. In the frame of the transportation triage, the colours marking the patients are as follows:

**RED:** The patient is to be urgently transported into the third medical institutions, by reanimobil and escorted by a practitioner. These patients require the following: surgery intervention with the aim of saving life; surgery intervention with the aim of saving the function and the unit of intensive care.

**YELLOW:** The patients are to be transported, according to evacuation of all *red* patients into the third medical institutions by ambulance, escorted by a technician. These are the patients whose life is not in danger, but in need of specialist treatment.

**GREEN:** The patients are to be transported at the very end of treatment incidence, into the appropriate institution (never the main hospital), by any available vehicle and without being escorted. The Protocol of Emergency Medical Aid in Belgrade plans the transportation of these patients by city communal bus.

**TERMINAL PATIENTS:** After evacuation of other categories, these patients are transported

into the medical institution by the ambulance, escorted by a practitioner or technician.

**BLACK:** The patients are transported to the Institute for forensic medicine or a local morgue.

## Conclusion

Due to hereinabove mentioned facts, the evacuation of the patients from the occurrence spot is not carried out randomly, but according to a planned schedule. It is essential that we should know that all medical institutions are not provided with the same capacities. Emergency Medical Aid in Belgrade has 20 active teams 24 hours on the terrain. The Protocol for the mass casualties conveys that the situation is not considered a mass casualty until the number of the injury exceeds the number of the active teams. This means that EMA in Belgrade has the capacity to simultaneously treat, if not 20, then more than 10 heavy injured patients and to provide them the adequate treatment within the frame of its basal possibilities. However, what happens if all patients are to be transported to the same hospital? Is there any hospital in Serbia which might admit 10 to 20 heavy injured patients who are in need of surgery intervention or intensive care unit? As we prepare for physical treatment of mass casualties, our protocols are to comprise the ways of treating the psychic effects of mass casualties as well. In this fight against mass casualties, no matter to what extent we achieve in our efforts, we must not relax and stop trying to find solutions to a lot of problems, as Albert Camus wrote in his novel "Plague": *Epidemics and war always find people unprepared.*

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