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EMERGENCY MANAGEMENT

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Abstract: Emergency Management is defined as the process of organizing and administering the resources and responsibilities necessary to address all emergency situations, with a particular focus on preparedness, response and recovery. In practical terms, it can be said that good management translates into better execution of emergency services, considering that longer hospital stays pose risks to the patient and imply losses of important and limited resources. Among the points discussed as relevant is the screening and risk analysis procedure and critical procedures in the provision of health services, especially for pre-hospital care. Tools used based on specific criteria to determine the severity of symptoms and risks, using protocols to deduce the need and speed of intervention. Given the importance of debating the validity of the emergency service, the literature review method was used to understand the topic and describe hypotheses and expose debates about the impact of qualified management on emergency events and the daily life of the emergency room.

INTRODUCTION

According to the online Portuguese language dictionary, management is defined as: “the action of managing, administering, governing or directing public or private businesses; administration.” In emergency management, this definition is skillfully applied since the central factor is managing the time of action in the face of extreme situations, correctly classifying the patient and assigning him a maximum response time for the team.

This article will seek to directly address everything from training to implementation of objectives, concepts, aspects, tools and impacts in emergency management.

Before continuing reading, it is necessary to highlight certain points about the aspects involving the division of emergencies into Pre-Hospital Care (APH), trauma room and red room:

At APH; A pre-hospital concept that aims in general: Assistance to the patient at the scene; Transporting the patient to the hospital (informing the type of incident, the victim's condition and the procedures performed); Arrival of the patient at the hospital or Emergency Care Units (UPA) (the previously prepared hospital will have the tools needed by the patient).

In the trauma room; When the UPA does not have the structure to care for a trauma, they refer the patient to qualified hospitals where, in the trauma room, the physiological criteria, mechanism of trauma and injuries are observed, to decide on the necessary approach to the affected patient. The UPA team will supervise an initial resuscitation, managing priorities and using protocols such as trauma XABCDE (X- exsanguinating hemorrhage control; A – Airway; B – Breathing; C – Circulation; D – Disability; E – Exposure) to optimize patient care and refer them to the appropriate referral hospital and/or surgical team.

In the red room; Patients who require intensive surveillance are sent to the red room until their transfer to the definitive treatment location. In the Emergency Care Units (UPA), patients classified as red (explained below in the tools topic) are sent to the red room, as well as the most serious to hospitals that have this environment. and involves everything from medications, dressings and surgical procedures to care for multiple traumas and cardiac arrests, until patients are relocated to reference hospitals in the treatment of the injury mechanism.

IMPORTANCE OF RESEARCH

In this sense, it is worth highlighting the vitality of this research in terms of the expository discussion about the training of emergency professionals in the scope of management in view of adequate management of the scenario, in order to save the resources required in care, taking into account that, through an environment with obvious limitations, such as beds, medicines, professionals or other instruments, good management is essential to maintain the situation of the emergency functional and resolving.

GOALS

Paying attention to the problems that occur as a result of poor management of emergency services in Brazil, this study aims to highlight the importance of medical qualifications in decision-making in the context of emergency management, as well as the assertive use of the tools available to medical professionals.

METHODOLOGY

This is a systematic review of a descriptive nature, focusing on Medical Emergency Management, carried out in September 2023; with access to material in digital databases, freely accessible websites and analysis of legislation. The literary review of the topic was carried out based on the following articles: The process of implementing emergency care units in Brazil (O'DWYER et al., 2017), Doctors and care management in emergency hospital services: professional power threatened? (CECILIO et al., 2020), Five-level emergency triage systems: variation in assessment of validity (KURIYAMA et al., 2017). Work posted in magazines such as "Fiocruz" and "Techniques, methodologies and quality" were also integrated, in addition to the support provided by ordinances number 10 and number 1600 from the Ministry of Health.

The main databases for research and study selection were the SciELO, PubMed and Google Scholar platforms; related to the following descriptors, "Emergency management", "emergency departments", "triage systems" and "hospital emergency management".

Articles that focused on the management of specific diseases in emergencies were not included, characterizing a departure from the proposal, those that were not or appeared to be incomplete, works from websites with no provenance, articles that were difficult to understand, and those that were published more than 10 years ago. For inclusion criteria, articles that cited methods for general management of emergency situations, those that described the functioning of management in a hospital environment and that discussed the process of implementing emergency support units (UPAs) were considered.

HYPOTHESES

The question arises whether medical training in the management, organization and application of developed protocols has a real impact on the quality of care for patients in emergencies.

Taking into account the tools developed to improve vacancy rotation and standardize care, it is understood that the emergency doctor's mastery of communication tools, bed evasion and systematization of services provided in accordance with the numerous demands, as these tools are legitimately effective in reducing the overload of the emergency sector, in order to enable the saving of hospital resources and, mainly, favor agile and correct decision-making, in addition to guiding treatment towards a safe and effective, as they have protocolled conduct with ample proof of suitability.

INFRASTRUCTURE AND SUPPORT FOR MEDICAL EMERGENCIES

At the beginning of the 21st century, national political reform measures were designated that culminated and made the Emergency Care Network (RAU) official, as an intrinsic tool in supporting the Unified Health System (SUS). With the concrete institution of the RAU, guidelines were created that support various duties of this new support, Article II ordinance number 1600, among them guarantees of humanization, regionalization, multidisciplinary care, quality monitoring, expansion of access, in addition to other particularities, aiming to accommodate acute cases required at service points, in addition to risk analysis and different interventions, for better handling of each case (ANSCHAU et al., 2017).

The Emergency Care Network is made up of a range of services that provide this humanized support to the population. Among them, the Mobile Emergency Care Service (SAMU) is extremely important, as it has opened up a wide range of dynamics for general transport and the initial management of potentially fatal wounds. Certainly, coexistence with another factor brings a more impactful result in improving the patient's condition. It is the UPA that will be our object of study; place where immediate and quality treatment will be provided, to then be forwarded by the Health Network according to the demand and severity of the case (KONDER & O'DWYER, 2016).

Implementation of UPA to support medical emergencies; UPAs are intermediary tools in emergency care and, as a result of the constant adjustments made by the Ministry of Health in its ordinances, these pre-hospital emergency posts have become mandatory as the needs and reality of each location are classified and evaluated. the feasibility or

otherwise of implementation and the level of investment referred to. This analysis classifies the UPA into three different sizes so that there is systematization in the transfer of funds.

This amount invested must have federal origin and takes into consideration the number of inhabitants of the area that the UPA in question covers. Therefore, this screening reflects directly on the structural dimension of the unit, considering that the level of investment and demand directly impact the size of the unit and is therefore related to the number of beds that will be made available. Below is the classification of 24-hour UPAs in Article 13 Ordinance number 10:

SIZE I, covers 50,000 to 100,000 inhabitants, 7 observation beds, 2 emergency room beds.

SIZE II, covers 100,001 to 200,000 inhabitants, 11 observation beds, 3 emergency room beds.

SIZE III, covers 200,001 to 300,000 inhabitants, 15 observation beds, 4 emergency room beds.

The transfer of investments, installation costs and monthly allowances follows the rates described above, that is, the monetary value that will be distributed to each unit in order to cover construction investments, furniture, equipment and labor, varies according to the size that was classified, determining the level of complexity and infrastructure required for the location in question.

The expansion of new UPA began after the 2008 ordinance (KONDER & O'DWYER, 2016), but, according to studies, this growth occurred irregularly until mid-2011, when it was concentrated in more developed regions, with an important emphasis on Southeast region. Only from 2016 onwards was homogeneity observed in the distribution of UPA, with this provision being made according to different specialty and complexity demands, and socio-demographics. It is clear, therefore, that there are positively and negatively influential factors

regarding the expansiveness of UPAs, which will be discussed below.

According to the organizational principles of the SUS (Unified Health System), set out by the Ministry of Health, the concepts of Regionalization and Hierarchization must be understood to explain how the distribution of services is defined according to sociodemographic and epidemiological criteria (BRASIL, 2022). In this context, regionalization would be a list of services already provided locally and what demand really requires, in order for their systematic cooperation.

Hierarchization is part of the requirement for a targeted division of each service in order to promote the best organization and systematization of the set of resources, based on local demand.

Therefore, within the scope of the UPAs' role as a fixed component of the RAU, there is an increase in the availability of low-complexity medical care and examinations, support for acute cases; in addition to meaning an increase in structural criteria -number of beds, physical space-, which surpassed previous health maintenance mechanisms, in order to highlight the benefits for the population arising from the expansive implementation of the units, valuing the principle of universality.

Embargoes and conflicts in the structuring of UPA; However, despite the great significance of UPAs, it is important to mention the difficulties of physical and organizational structuring of these components. To this end, it is first worth mentioning a work carried out with relevant interviewees regarding the heterogeneity of the installation of Emergency Care Units, a subject that will not be extended as it is properly explained by (O'Dweyer et al., 2017). However, it is worth highlighting from the interviewees' statements some factors that guided the expansion of new units, such as: difficulty in finding qualified professionals,

political lack of interest, lack of federal investment, lack of structural planning.

In these surveys, governors and state managers were consulted, who expressed divergent opinions regarding the implementation of UPAs, while others highlighted concerns about the focus of efforts, revealing the preference to finalize projects already started in the regions, with a consequent reduction in expandability. Situations ranging from financial factors such as lack of automation of care, lack of beds and resources for equipment maintenance to the reduced number of qualified professionals remain predominant as the main antagonists in the ideal structuring of the aforementioned pre-hospital units.

TOOLS USED IN EMERGENCY

In accordance with the evident need to protocolize care in search of optimizing decision-making and bed avoidance in the emergency, management tools were developed in a broad manner, contributing to the dynamism and agile assistance to emergency patients.

Initially, triage is carried out this being more objective in scenes of multiple victims or major injuries, while more subjective when in hospital environments, a tool that seeks to direct the efforts of the healthcare team, in order to be able to treat patients more effectively. in a timely manner, comprehensively assessed from vital signs to reassessment.

In this topic, therefore, we will generally cover some of the most used tools currently around the world, with an in-depth focus on the advent of Kanban and its repercussions in Brazil.

When studying these tools, it is clear that among the protocols there are general characteristics that overlap (CECILIO et al., 2012):

- The purpose is to distinguish patients at imminent risk of death as quickly as possible;
- Generally divided into categories from most urgent to least urgent;
- There is compulsory monitoring of patients, in order to reassess changes in the clinical picture;
- Establish the most appropriate area for care according to the risk level of the patient and the location;
- Screening is conducted by nursing professionals;
- Priorities are established to minimize overload, improve patient flow and ensure periodic reassessment;
- The service is favored in emergency care, above diagnosis.

Some vital parameters are used for screening in the protocols covered, including: blood pressure, temperature, respiratory rate, heart rate, saturation, blood glucose, capillary refill time, each with appropriate standard reference values, varying from adults to children.

It is known that, in each state, specific guidelines are followed for the reception protocol and risk classification, and each health department, based on standard norms of the Unified Health System, must determine its variants. The basis, therefore, is stipulated by the Ministry of Health, through the HumanizaSUS project, written in 2004 by author Cristina Maria Eitler and collaborators (BRASIL, 2004).

Next, we will discuss tools considered relevant in emergency management in Brazil, these being the Manchester Triage System (STM) and the Kanban method.

The Manchester Sorting System (MTS); A highly widespread sorting system with an organization of 5 levels bordered by color assistance; highly used in (UPAs) and (SAMU) in order to establish the maximum time for

patient care according to their severity. In the tool, the stipulated severity increases from level 5 - non-urgent - to level 1 - emergency -, which requires immediate care, each with an estimated time for care, in order to avoid the worsening of cases.

Kanban; Furthermore, given the various protocols presented and their use in emergency management, in Brazil, the use of this tool is still fraught with concerns, mainly regarding the loss of medical protagonism. However, the use of the Kanban tool to manage bed and clinic management was an innovation put to the test. Thus, even with the uncertainty of the change that would occur in the expression of medical power in the management of hospital care, it was possible to study the practical application of the software and observe its impacts on all aspects of the organization's development.

Kanban, after all, is a method for managing production flows with a focus on productivity in the hospital reality. It is oriented towards bed and clinic management, which aims to improve the quality of care, bed rotation, aiming to reduce hospitalization time and costs. hospitals working with the help of multidisciplinary discussion to make decisions.

The system organizes the stay of patients in each service or hospital unit, making it possible for all professionals involved in care to view the indicator through a computerized list with all beds and patients in the hospitalization unit in question, in which they can be found. information on diagnosis, length of stay and expected discharge. Using this tool, a color classification is created with indicators capable of demonstrating the team's results, generating overflow of beds, and can indicate greater resolution capacity of the care team. Organizing in table form, beds, patient information, length of stay in hospital and pending hospitalization or discharge.

In the study of the 2020 public health notebook, it was concluded that the use of the tool was an effective multidisciplinary collaboration, in short due to the need to discuss cases, resulting in a significant reduction in the gap between hospital management and team activities assistance, especially doctors, in managing their cases (CECILIO et al., 2020). Being a great success of the Kanban system doing so, accepted by all employees, including doctors. This machine redefines autonomy and the role of medical authority, in addition to being highly relevant to therapeutic planning and ensuring good communication and team integration.

IMPACTS OF GOOD MANAGEMENT: PRINCIPLES FOR GOOD QUALITY SERVICE

In practical terms, it can be said that good management translates into better execution of emergency services. Being aware of the different emergency environments, such as: the trauma scene and pre-hospital care, the trauma room, in which SAMU directs the patient, and the red room - responsible for managing critical conditions, but already in stability - it is understood that different protocols and postures are appropriate given the patient's condition at each moment. Therefore, it is understood that the emergency physician needs to be able to manage and coordinate the various needs that arise.

Good management, from this perspective, prevents additional adversities from developing, as it will be responsible for optimizing the patient's length of stay in the emergency environment and will enable a better prognosis and reduced discomfort for the patient.

It is worth evaluating, in this sense, that simply increasing the number of beds would not be enough to solve the problem of overload in the emergency sector, as it is proven that only good management associated with the

correct use of high demand care methods will be able to minimize the loss of lives and resources (PINTO JUNIOR, 2011). One of the best evaluated tools for organizing and optimizing emergencies is the Kanban method. However, it is known that, as it is subjective, it depends on efficient use by a well-trained doctor, favoring the idea of the inseparability of the management training of the emergency doctor, responsible for guiding care and referrals, in addition to establishing good communication with his team. multidisciplinary team in search of optimizing bed turnover.

In pre-hospital settings and emergency care units, triage systems have been applied on a large scale. This step is important to predict the clinical severity of patients and optimize assistance to victims (GUEDES et al., 2015). Patients classified as red, according to the Manchester triage system, are more likely to die than those classified as orange, yellow or green (MORAIS et al., 2021). Therefore, good management is necessary in order to guarantee adequate and timely care for those most seriously ill patients, thus reducing morbidity and mortality rates in these patients.

In the context of trauma patients, we can attribute poor emergency service management as one of the causes for unfavorable outcomes. A study demonstrated that, in patients suffering from traumatic brain injury (TBI), around 76% of the causes of long stay were related to management, while only 22% were associated with the patient itself ((SILVA et al., 2021). Those who stayed in the emergency room for 6 hours or more had a higher risk of death and unfavorable outcomes. This can be justified if we consider that, over time, the occurrence of secondary injuries, such as hypoxia, inflammation, increases. cerebral edema, ischemia and intracranial hypertension, which leads to a progressive worsening of the patient's clinical condition. Therefore,

optimizing the length of stay in the trauma room, based on adequate management, is essential to reduce complications in these patients. (DRIESEN et al., 2018).

Regarding dialogue between the team, it is known that the emergency doctor needs to have oratory qualities and interpersonal skills, as it is necessary, in these scenarios, to exchange information and knowledge, in order to view the patient from wide angles and points of view. view, using each professional's domain knowledge and, this way, favoring compliance with the principle of comprehensiveness of the SUS, which guarantees the patient that he is understood and assisted in all his demands, whether organic to different areas or psychosocial. Involving professionals from nursing, physiotherapy, speech therapy, dentistry, among others, in the assessment of patients allows for a comprehensive view of the individual, their clinical condition and their needs. The exchange of knowledge enriches discussions and ensures more robust care, thus improving the quality of patient care and the functioning of the emergency department.

To achieve efficient management, it is essential to prioritize referral, considering that the presence of the victim in these places can worsen the situation, subjecting them to complications and infections, in addition to implying the excessive use of limited resources and causing greater suffering to the patient. affected person and family members.

IMPACTS OF POOR MANAGEMENT IN THE CONTEXT OF THE EMERGENCY

It is necessary to evaluate the impacts on the hospital environment and on patients' health when there is a deficiency in medical training in the emergency management area, in order to understand that clinical knowledge alone does not provide integrity and quality in care.

To exemplify and make understanding emergency management practical, it is worth reporting a personal experience of a night shift, in which I accompanied the medical clinic in the red room.

A total of 8 clinical cases were passed, with 3 patients still to be admitted from the orange room and cases constantly arriving from the trauma room. Thus, chaos was developed due to the scarcity of material and human resources. The updating of the medical records of most patients was pending, as the failure in management caused an overload of medical and nursing work.

After examining the cases and understanding the severity and risks, it was possible to prescribe and direct them to the definitive treatment location, as the red room is an environment for caring for imminent risks to life. Therefore, patients were sent: to the ICU, when requiring intensive treatment and constant medications; discharged upon discharge, when a conclusive diagnosis is made and with the appropriate guidelines for continued treatment by the health network; to other medical specialties, when it was not the responsibility of the medical clinic; to the infirmary, when stabilized, requiring only basic care.

Once the pending issues were resolved, 2 patients were kept in the red room, highlighting the importance of bed management and referral, as, if they were not done, there would be insufficient resources to guarantee adequate

treatment, resulting in failures in care, which could cause avoidable complications.

In this sense, the lack of medical training in the emergency scenario culminates in the difficulty of making accurate and effective decisions to mitigate the impacts of risks. Furthermore, the qualification of the professionals who are part of the multidisciplinary emergency care team is essential for the actions to operate harmoniously.

Therefore, the vitality of planning and good emergency management based on the principles of emergency scenario management is highlighted, namely: comprehensiveness, progressiveness, risk orientation, integration, collaboration, trust, coordination, flexibility, professionalism, ethics, chain of command, global approach to hazards, risk management, preparation and readiness, information sharing and security (VALENTE, 2018).

Therefore, in order to reduce the risks and mitigate the damage caused by an incident or emergency, it is important to highlight the importance of structuring good logistics, preparation before responding to an emergency, which includes the preparation of plans, training, structuring, operational planning and management; for better administration of care and obtaining an effective response, in order to prevent scenarios such as the aforementioned from occurring again.

This way, errors such as poor time management within the emergency room can be avoided, in terms of the period required to care for patients according to their risk classification, as there may be complications in the situation.

CONCLUSION

“The fate of the injured is in the hands of whoever applies the first dressing.” The phrase said by North American military surgeon Nicholas Senn, MD (1844-1908) demonstrates the importance of properly managing an emergency scenario, from pre-hospital care, until the moment the patient is referred to a specialized service.

Therefore, the inseparability of management in the training of emergency physicians, as it provides quality treatment and efficient rotation of available beds. In emergency hospitals, when there are hybrid professionals-defined by the Kanban method as emergency doctors competent in the clinical and management area, capable of making decisions together with their team - clinical conduct and management of appropriate inputs are favored, highlighting the need to study the tools and managerial skills to act in the management of emergency patients and the positive impact on evolution with referral accompanied by adequate instruction.

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