

# HOSPITAL TRIAGE IN EMERGENCY SERVICES

## EL TRIAGE HOSPITALARIO EN LOS SERVICIOS DE EMERGENCIA

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### ABSTRACT

Hospital triage is a fundamental part of clinical management in emergency, when the demand exceeds the availability of human and technical resources. The Emergency Triage is a system that offers a method to assign clinical priority in emergency situations. It is not designed to judge whether patients are adequately diagnosed in the emergency, but to ensure that those who need urgent care receive it properly and in a timely manner.

Through the implementation of triage in emergencies, there has been an improvement in the quality of care, since it is attended in an appropriate manner and in the time necessary to those pathological situations that require rapid assistance.

Triage in emergency services has been evaluated in many research projects where they conclude that it is necessary to create, develop and change it according to the demands of better care and increased demand in emergency. This last aspect has been the most important determinant worldwide in the development and creation of different triage scales to deal with emergencies adequately and in the necessary time. In Peru in general and in Lima in particular, there is no systematic development of concepts and uniform implementation of triage in hospital emergency services. It is therefore necessary to know the concepts surrounding the triage of hospital emergency services and in accordance with this, establish the regulations, by the governing bodies in health, necessary to improve initial care and emergency quality.

**Key words:** Triage; Hospital triage; Emergency. (source: MeSH NLM)

### RESUMEN

El Triage hospitalario, es una parte fundamental de la gestión clínica en emergencia cuando la demanda excede la disponibilidad de recursos humanos y técnicos. El Triage de emergencia es un sistema que ofrece un método para asignar prioridad clínica en situaciones de emergencia. No está diseñado para juzgar si los pacientes están adecuadamente diagnosticados en el marco de la emergencia, sino para asegurarse de que aquellos que necesitan atención urgente la reciban adecuada y oportunamente.

Mediante la implementación del triage en las emergencias se ha producido una mejora en la calidad asistencial, ya que se atiende de una manera adecuada y en el tiempo necesario a aquellas situaciones patológicas que hacen necesaria una asistencia rápida.

El Triage en los servicios de emergencia ha sido evaluado en muchos trabajos de investigación donde concluyen que es una necesidad su creación, desarrollo y cambio según las exigencias de una mejor atención e incremento de la demanda en emergencia. Este último aspecto ha sido el determinante más importante a nivel mundial en el desarrollo y creación de diferentes escalas de triage para atender las emergencias de manera adecuada y en el tiempo necesario. En el Perú en general y en Lima en particular, no existe un desarrollo sistemático de los conceptos y de la implementación uniforme del triage en los servicios de emergencia hospitalarios. Es necesario conocer los conceptos que rodean al triage de los servicios de emergencia hospitalarios y en función a ello establecer las normativas, por los entes rectores en salud, necesarias para mejorar la atención inicial y de calidad en emergencia.

**Palabras clave:** Triage; Triage hospitalario; Emergencia. (fuente: DeCS BIREME)

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## INTRODUCTION

The concepts about the situations that currently we know as individual emergencies or collectives have a development time relatively short, both on the world stage and local. In the past 40 years, the speed of development focus on emergencies first is gone increasing, to become dizzying later. Emergency Medicine is a young specialty, well established and mature, but only in a number a relatively small number of countries<sup>(1)</sup>.

However, emergencies and disasters are so ancient like humans himself and make their appearance since man has existed, either with injuries or acute illnesses needing care in immediate form, especially those that threaten life or the integrity of the human being<sup>(2)</sup>.

The current situation of the health systems of our country and the world has undergone changes. The transition demographic and epidemiological translate the increase in life expectancy, but also chronic diseases and multiple pathologies. Already from the 1993 Census, the pyramid by age presented a relative reduction in younger ages and a slight increase in intermediate ages. Age Median population increased from 19 to 22 years during the intercensal period 1981 - 1993, and to 2017 the transformation of the population pyramid of a wide base and narrow vertex to one with a base reduced and a progressive widening in the centers reflects a smaller number of births and largest working-age population, a figure that tends to be rectangular, which shows that Peru is in a stage of transition towards aging demographic and a notable increase in demand emergency services<sup>(3)</sup>.

Various studies mention the impact of aging on the casuistry of a hospital and its different services for which the need to adapt hospital resources to requirements of the geriatric population, with the history and diagnoses that most frequently present and their treatment in particular<sup>(4,5,6)</sup>.

In most of the cities of our country, health facilities are saturated, even more so in emergency and emergency services, probably due to the uneven growth of the population that has access to these and the portfolio of health services provided, problematic that apparently has not been anticipated or faced weather. Populations in urban areas grow exponentially, the high rates of violence, crime, and the generalization of youth gangs translate into high numbers of victims with serious injuries, enhancing with chaotic growth vehicle and the emergence of modes of transport how are motorcycle taxis<sup>(7)</sup>.

Overcrowding in emergency services translates to the problems of the various systems of health. Today, the main problems that afflict the population over 60 years of age are related to chronic degenerative pathologies, where cardiovascular disease is in the first order, leading to higher utilization of health services, in particular emergencies, higher cost of care, and higher capacity resolution of health establishments<sup>(8,9)</sup>.

The aforementioned creates a need for health that must offer quality, opportunity, and efficiency in the care of the critical emergency patient in accordance with the new conceptions of health care.

One of the most important aspects both at the level hospital as well as the emergency service itself due to the perception of the quality of care of patients is the first contact made by the same with the hospital. The constant increase in the number of visits to emergency services or hospital emergencies determines the need for have a system to classify patients who go to these services, depending on their severity probable, to give priority to those who more deserves it, this process is the Triage and the place where the first contact of the users is made of the emergency services with the personnel of health are the Triage areas that can be organized to a greater or lesser extent in the emergency services.

Triage means the classification of patients according to their health condition. Triage is a valuation process initial clinic that classifies patients before diagnostic and therapeutic medical evaluation, based on your degree of urgency, without necessarily taking take into account the order of arrival, determining that the most urgent patients are evaluated first while the remainder must be controlled and reevaluated until full medical evaluation<sup>(10)</sup>.

### History of triage

The development of Triage is born from the experiences of war and military medicine, in ancient times the armies made little or no effort to care for their wounded by the level of their knowledge, the few attentions provided were little or totally ineffective<sup>(11)</sup>.

French military surgeon Baron Dominique-Jean Larrey, chief surgeon of the Imperial Guard of Napoleon is considered by most authors as the first to conceive and implement an official triage system on the battlefield via the rapid evaluation and classification of soldiers injured<sup>(11,12)</sup>.

As Iserson<sup>12</sup> points out, he prioritized treatment and evacuation of casualties requiring medical care

urgent instead of waiting hours and even days or let the battle end. In this way, Larrey realized hundreds of amputations on the battlefield while the battle raged, and also designed light cars, which he called "ambulances flying" to quickly transport the casualty. It said "those who are dangerously injured should receive first care, regardless of rank or distinction, those who are injured to a lesser degree They can wait until their brothers in arms that are very mutilated, have been operated and dresses, otherwise they will not survive for many hours, rarely, until the next day" what was reflected in his memoirs on the campaign from Russia<sup>(18-12)</sup>.

British naval surgeon John Wilson argued that surgeons should focus on those patients who needed immediate treatment with a further probability of success; patients with fewer injuries serious and those whose injuries were probably fatal treatment was extended. During the Civil War of the United States (USA), with the formal establishment of a military field ambulance and aid stations direct through the efforts of two surgeons of the Union Army, Charles Tripler, and Jonathan Letterman consolidated what was indicated by Larrey<sup>(11)</sup>.

However, in the early days of the Civil War in The US did not have a uniform classification method of those wounded in combat determining high mortality which resulted in the implementation of selection procedures on the front line and ambulance services reducing mortality. With the advent of the first world war, a number of high-lethality weapons were developed with a large number of victims not seen before, that needing treatment they had to enter a system of triage. As Iserson<sup>(12)</sup> refers, Keen in his book "Treatment of war wounds" mentions that "A hospital with 300 or 400 beds can suddenly be overwhelmed by 1000 or more cases. Often times, Therefore, it is materially impossible to give a treatment fast and complete to all. A single case, even if urgently requires attention and whether to absorb a long time, you might have to wait, as in that same time a dozen others, almost as demanding, but requiring less time, could be cared for. The greatest good for the greatest number it must be the rule".

This approach explicitly recognizes that when resources are limited, some patients who could save can wait while saving the elder number. Other triage planners in the first war offer a very different approach to the triage of the battlefield, which poses delaying treatment of the least seriously injured, as they suggested give priority to this group, as they can be

treated quickly and return to combat.

In World War II, new weapons, including upgraded tanks and support air, and new treatments, including plasma and penicillin. Military physicians developed protocols new and more detailed tests for the evaluation and triage of patients.

Similarly, German military doctors, during the Russian campaign of 1941, used the principle of maximizing combat strength by treatment of those who could more quickly return to action with the least expenditure of time and resources. Another example of this approach to military triage is can be found in a 1958 NATO manual (North Atlantic Treaty Organization) that describes three categories of triage: 1. Those who are slightly injured and may return to duty, 2. Those who are more seriously injured and in need of immediate resuscitation or surgery, and the "hopelessly wounded" or dead on arrival.

The rapid evacuation of the wounded began with the basic aeromedical transport (without medical attention in the air) in the Korean War and advanced to transport sophisticated multi-causal helicopter with treatment air in Vietnam. The mean time between injury and definitive treatment was reduced from 12 to 18 hours in World War II, 2 to 4 hours in Korea, and less than 2 hours in Vietnam. In the 2 conflicts of Iraq, mobile field hospitals, ideally within 10 miles of the battlefield, he remained relatively short evacuation times.

The use of nuclear weapons in WWII World and the continuing threat of nuclear weapons, chemical and biological mass destruction pose special challenges for classification and planning triage. In a limited attack with weapons of mass destruction, planning triage for major catastrophes can help providers to distribute limited resources among the injured survivors. After the widespread use of such weapons or a disaster natural magnitude, the number of victims, the destruction of available resources, and order social care can be so great that medical care cash, including triage, becomes impossible. It is often mentioned that military systems triage have been adapted for triage in contexts civil, including disasters. Based on a comprehensive review of state disasters States, Auf der Heide reported that, despite the existence of triage systems, most of the disaster victims outside the hospital, find and are transported directly to hospitals by passersby<sup>(13)</sup>.

The first description of the civilian use of triage in the Emergency Departments (DE) for the first time was at

Yale-New Haven Hospital in 1963, with a focus on the civilian population and was published by Weinerman in 1964<sup>14</sup>. His classification included three categories:

- a) Emergent (conditions requiring attention to an immediate medical condition, as they are life-threatening).
- b) Urgent (conditions that require attention within a few hours per be considered an acute condition, but not necessarily serious).
- c) Non-urgent (a condition that does not warrant the use of Emergency Department resources).

Based on the needs of patients and the health personnel who first receive the patients who come to the Emergency, said classification was modified with experience and the various research works developed, so that in Currently, a triage with a scale of five is proposed levels based on prioritization based on severity filed<sup>(15)</sup>.

- **Level I:** absolute priority with immediate attention and without delay.
- **Level II:** very urgent life-threatening situations, instability, or very severe pain Delay of medical assistance for up to 10 minutes.
- **Level III:** urgent but hemodynamically stable, potentially life-threatening that probably requires diagnostic and/or therapeutic tests. Delay of 60-minute attention.
- **Level IV:** minor urgency, potentially without risk vital to the patient. A maximum delay of 120 minutes.
- **Level V:** No urgency. Little complexity of the pathology or administrative issues, appointments, etc.

Delay of up to 240 minutes. Based on the five priority system before mentioned, there are currently five models hospital triage for universal use<sup>16</sup>, existing various local attempts to implement their own models<sup>(17,18,19)</sup>.

### Hospital triage models

- a) Australian triage scale, NTS 1993 and ATS 2000
- b) Triage of the Canadian Emergency Department 1995 CTAS
- c) 1996 Manchester MTS Triage System
- d) Emergency Severity Index ESI of 1999 and
- e) Andorran triage system or Spanish system of Triage MAT-SET 2003

The classification model must be standardized, normalized and have a high level of concordance

interobserver, valid when classifying the patient according to your actual level of urgency. The primary objective of the classification will optimize the time span from that the patient arrives in the emergency room and is assessed by the doctor who will treat the patient. The priority assigned will depend on the reason consultation, clinical assessment, signs objective and subjective patient, this process is continuous until starting medical attention on the topic respective.

During the triage process it is revealed the principle of charity, that is, getting the best for the patient with rational use of existing resources, as well as the principle of justice with allocation of said resources to those who have greater chances of survival.

The background to the five-priority system is originate in Australia. As FitzGerald<sup>(20)</sup> points out, in Australia developing a classification system was based on the observations of nurses in classification of patients. This observation identified several consistent and distinct actions after evaluation those that were determined by the urgency of the patient and included:

1. Seek immediate medical attention and get started resuscitation.
2. Assign the patient to the next available physician.
3. Place the patient's emergency history at the front of the waiting list.
4. Place the patient's emergency history in order on the waiting list.
5. Encourage the patient to seek help elsewhere or in another moment.

The central decision underlying these observations was the "urgency" of the patient and the evaluation of the nurse at the time of the medical evaluation. This led to the development of The Ipswich Triage Scale (ITS), which was based largely measured on a categorical scale of 5 levels in operation at Box Hill Hospital in Victoria.

However, the ITS included an urgency descriptor based on the general determination of the nurse of the patient's emergency.

In the STI the patient must be seen under circumstances reasonable by a physician within 1. Seconds, 2. Minutes, 3. One hour, 4. Hours and 5. Days. The category of "days" did not imply that patients should wait days, but they could do it without adverse clinical conditions.

Following this, a detailed usage analysis was performed on the scale for 12 months at Ipswich

Hospital. These studies showed a relatively high-level concordance in ranking assessments among nurses, a direct relationship between rating evaluation and a variety of others severity measures (e.g., Trauma Score, injury severity, and Asthma severity score), and a direct association with outcomes such as mortality, time in a hospital, time in UCI and the use of resources.

Other studies by Jelinek<sup>(21)</sup> confirmed the repeatability and validity of the system. This work formed the basis for the adoption of the ITS in 1994 by the Australasian College for Emergency Medicine (ACEM) and the National Triage Scale (NTS). McMahon notes that the ATS requires that personnel trained health practitioners evaluate all patients at their arrival, determining classification category when completing the sentence: "This patient must wait to receive a medical evaluation and treatment no more than \_\_\_ minutes." Each category of the classification has a recommended maximum time for the treatment. The assessment takes two to five minutes; Nurses obtain vital signs and other data only when needed. A wide development of this scale can be obtained from <https://acem.org.au/Content-Sources/Advancing-EmergencyMedicine/Better-Outcomes-for-Patients/Triage>. Subsequently, the NTS became the Australasian Triage Scale - ATS in 2000 and has been widely validated by research experience and operational, the ATS is also one of the bases of the Canadian Triage and Acuity Scale CTAS in Canada and the Manchester Triage System MTS of the United Kingdom. McMahon<sup>22</sup>, notes that the Canadian scale of classification and acuity (CTAS) is similar to ATS but it has slight differences in time to doctor's evaluation. Also includes scales of pain and a separate acuity scale for pediatric patients, and allows the determination of the severity of conditions (such as asthma) in more than one category, and has a "summary view Quick "of the sorting categories broken down by body system. Also, describe the frame time for a reassessment of patients in the waiting area and allows you to change the category of classification when the patient has been waiting for a long time (for example, a patient-rated "5" may change to "4" after waiting two hours). It also has an indicator of quality that measures whether the department meets its own response time standards. It can get widely developed at <https://caep.ca/resources/cats/implementation-guidelines/> The Manchester Triage System, developed by the Triage Task Force from Manchester, England, directs professional triage health staff to assign levels by identifying signs and symptoms and the assessment of six factors: a threat for life, pain, bleeding, level of consciousness, temperature and acuity. (Specifically,

avoid diagnosis during triage). They have been developed fifty-two algorithms for use during This process. Its development can be seen at <https://www.triagenet.net/classroom/> or at [http://www.triagemanchester.com/web/presentacion\\_es\\_66.php](http://www.triagemanchester.com/web/presentacion_es_66.php)

The Emergency Severity Index (ESI), developed by a team of emergency doctors and nurses led by Wuerz, now deceased, at Brigham and Women's Hospital in Massachusetts and by Eitel in York Hospital in Pennsylvania. The ESI is based on a conceptual model that not only raises the question "When should this patient be seen? " but also "What does this patient need? " Thus, the algorithm first incorporates the acuity and then the expected resource consumption to determine the priority of treatment. Components include airway stability, cardiac function, level of consciousness, the intensity of pain, number of interventions required, and the level of risk. I know has proven its high degree of reliability among raters in the classification category. A strong correlation was observed between the category of classification and the probability of hospitalization. Version 4 with examples can be obtained from <https://www.ahrq.gov/professionals/systems/hospital/esi/index.html> The Spanish Triage System - Andorran Model of Triage (SET-MAT), arises in the year 2000, with the CTAS as a reference, moving from a scale based on symptoms and sentinel diagnoses on a scale based on symptom categories. It is a set of symptoms or syndromes that the professional recognizes based on the reason for consultation and allows it to be classified into asymptomatic category<sup>(10)</sup>.

In 2001, the computer program Triage aid and the Spanish Society of Medicine of Urgencies and Emergencies (SEMES) adopts it as a triage model for the Spanish state in 2003, with the name of Spanish Triage System (SET). The set has 32 symptomatic categories and 14 subcategories that group 578 different reasons for consultation.

The SET-MAT uses a 5-level priority scale and has a specific version for pediatrics with more specific symptomatic categories according to the employed population. This version has been validated, although it does not show such a close correlation between consumption of health transport resources or index income according to the level of urgency, as in the adult population.

### **Triage principles**

Triage principles According to PAHO in its Manual for the implementation of a triage system for emergency

rooms<sup>(23)</sup>, the fundamental principles that characterize a structured and modern triage system are:

- Triage system with 5 levels of prioritization, standardized and equipped with a computer program triage management, which allows the registration of classification, control of all patients in and out of service, and time control performance (Timelines).
- Integrating the model is one of the most relevant aspects of the current 5 category triage models, to which it has to contribute aspects of review and adaptation to the health environment where it is applied.
- Quality model, with operational objectives, proposed as quality indicators of triage, reliable, valid, useful, relevant, and applicable.
- Medical and nursing triage system no exclusive, integrated into a service dynamic where the urgency of the patient is prioritized, over any other structural approach or professional, within a specialization model emergency.
- Model equipped with a computer program of help clinical decision in triage evaluated and validated, with ongoing help and registration triage anamnestic.
- Integrated system in a continuous improvement model of quality, with monitoring of indicators quality of triage, which defines a standard of reasons for consulting the emergency room and allowing others, evaluate the casuistry of the service.
- Be able to integrate into a global model of history electronic clinic, integrating activity medical and nursing, standardized and following quality standards, allowing total control of the clinical and administrative management of the emergencies.
- Propose structural adaptations and staff in the emergency room, consistent with the quality needs of the triage system and specific training for triage personnel.
- Holistic structured triage system, application both in the field of urgency hospital and out-of-hospital, applicable both children as well as adults, and regardless of the type of hospital, device, or assistance center.

### Triage Goals

The objectives of the triage system in Emergency15 point towards timely, rapid identification of life-threatening patients, try decrease patient congestion

by ensuring granting the appropriate priority by assigning it to the most suitable area to treat the case. As I know has indicated it is not the intention to establish diagnoses but to grant the priority of attention. An important aspect is to aim for the information to patients and their families about the general condition of the patient and the probable time Standby.

### Advantages of triage

Triage provides the patient with information about your state of health and approximate waiting time prioritizing your attention according to its severity clinic. It also guides patient flows in function to its gravity allowing the rearrangement of emergency resources based on demand.

### Triage functions

Determine the life-threatening situation of the patient, through a system of care priorities, determining the most suitable area to treat the patient informing patients and relatives of the first actions to take according to your priority of attention and likely waiting time.

### Triage quality indicators

The classification of a structured triage allows have quality indices. Some of them are the waiting time to be attended in the triage which it should generally be less than 10 minutes. It is also measurable index the proportion of patients who leave the hospital without being treated by a doctor and that, in Generally, it should be less than 2%.<sup>(10-24)</sup> quality indicators have been proposed for the hospital triage which would be:

1. The rate of patients lost without being visited by the which would be a Quality Index of satisfaction, risk, and adequacy. The established standard is in 2% of all patients attending the emergency room, they subdivide it into:

- a. Index of patients lost without being classified which is the percentage of patients who decide to leave the emergency department after being registered administratively and before being classified, on the total number of registered patients.

- b. Index of patients classified and lost without be visited by the doctor, which is the percentage of classified patients who decide to leave the service of emergencies before being visited by the doctor, on the total classified patients.

2. The time since the patient's arrival at the service emergency until the moment the classification. It is recommended that this time be 10 minutes, this index

does not have an established standard, it is difficult to calculate unless there is an electronic system and automatic check-in.

3. The duration of the classification (time of triage duration), it is recommended that it be 5 minutes.

4. The waiting time to be visited is established that at least 90% of patients have to be visited by the medical team within 2 hours of their classification and 100% in 4 hours.

The various types of triage models must have high reliability and reproducibility. Reliability is a statistical term that assesses the degree of inter-rater and intra-rater uniformity. Either two different people or the same person perform the triage would obtain the same result<sup>25</sup>.

At the present time, a correct triage is carried out through computerization of the same because despite the reliability and scientific validity of the 5-level triage scales, the experience of their use has shown problems translated in research as reliability of the results in clinical practice (problems of interprofessional and interhospital concordance when applied to patients in triage), attributed to different causes: 1.- heterogeneity in the training of professionals; 2.- tendency to undertriage in overcrowded emergency rooms; 3.- tendency to undertriage in common acute situations; 4.- tendency to overtriage to justify long delay times; 5.- tendency to overtriage in paid services by casuistry. All of which would diminish with a computerization of the triage that would constitute a fundamental support for the triage staff and also allows a more reliable audit<sup>(23)</sup>.

The implementation in the emergency services of the triage area has determined in part, satisfaction on the part of the emergency personnel, given that the pathology they face has been selected and qualified before their care, reducing the one that is the one they should not attend and but if you should receive medical attention at other levels of assistance.

Community health education is produced, making the patient with a trivial pathology, who does not require additional hospital studies or tests and who thinks that by going to the hospital emergency services they are going to carry out these auxiliary tests, he finds a necessary triage that discriminates against that situation. Likewise, an improvement in the quality of care has been achieved since those pathologies that require prompt assistance are treated appropriately and in the necessary time, increases the satisfaction of external and internal users and rationalizes the

consumption of resources collaborating in improving the overall quality of the service and providing a fair order of care, based on the severity of the patients, emergency / urgency<sup>(26,27)</sup>.

Within the triage organization, it has been studied which professional could execute it apart from the Doctor. Imperato, in an intervention study of 6 months before and after implementing the presence of the doctor, states that through a survey said presence had a significant improvement in patient satisfaction<sup>(26-28,29,30)</sup>.

Rainer, in a prospective observational study of consecutive patients who attended the triage station of an emergency department between 9 am and 5pm, Monday through Friday, evaluated the impact of a specialist in triage on duty time. When the different triage categories were compared, significant reduction was only observed in semi-urgent patients during the study period. However, semi-urgent patients make up 68% of all assistances in the study group and 74% in the control group, concluding that the presence of an Emergency medicine specialist can shorten the service time of category 4 patients and that patient triage can best be performed by a triage team with the presence of an Emergency Medicine specialist and nurses rather than just a triage nurse<sup>(31)</sup>.

On the other hand, the decisions taken may have a margin of error that needs to be monitored, as published by Grossmann when reporting on a "sub-triage" that occurred in 117 cases out of a total of 519 patients aged 65 or over, the reasons being The main high-risk situations and the failure to adequately interpret vital signs, concluding that in their study, older patients were at risk of "undertriage". It was performed with the emergency severity index or Emergency Severity Index, which, however, they found reliable and valid for triage of older patients<sup>(32)</sup>.

A review of database searches of comparative studies published from 1994 to 2014 examining the role of the experienced physician in triage shows that triage by experienced physicians can be an effective measure to improve the performance of the emergency department<sup>(33)</sup>.

Concern about the sensitivity of triage was also revealed in another study by Mendoza and Elguero, who determined the sensitivity of clinical triage in an adult emergency department by conducting a prospective cross-sectional and clinical study, including patients over 18 years of age who came to request a consultation. to the emergency department

and were evaluated by the triage service doctor

### Triage in the emergency services of Lima

In Peru in general and in Lima in particular, the changes have not occurred progressively and continuously, but rather several stages have been superimposed as a result of the epidemiological and demographic change that occurred in the last 30 years and where the violence of terrorism and gangs, as well as the rapid changes in the vehicle fleet and chronic degenerative diseases have determined an over-demand for emergency services. The response of the health system has not been timely.

Most of the emergency services to face this over-demand have promoted areas such as triage, but in a disorderly manner and without general and specific normative foundations, the aforementioned is preliminarily reflected in a study on triage in Lima hospitals; Twenty hospital emergency services were evaluated, 65% were categorized as level III-1, 25% level II-2, 5% level IIE and 5% level II-1. The start time of triage in their emergency services is 8.61 years on average, they work 24 hours on average in 60% of health establishments and from Monday to Sunday in 70% of them.

The priorities used are 4 in 61.11%, 5 priorities in 33.3%, and 3 priorities in 5.56%. Triage in 70% is in charge of the medical professional and 30% of nursing. There are 15% (3 establishments) partially performed by nursing technicians.

Medical programming is only total in only 30% of the establishments and partial in 30%. 8 establishments did not inform about the type of programming. 15% of the total of 20 establishments report that the doctor who performs triage has a specialty, 11 establishments deny that they have a specialty, and 6 do not report. Nursing presents 83.33% who have a specialty. In 90%, relatives or patients are informed about the health situation and 65% are informed about the

waiting times. 20% handle quality indicators and 10% carry out retriaging. 50% of health establishments use triage scales and 85% of the personnel of the establishments that use them are aware of them. 85% of health establishments report that they have internal regulations on triage and 75% of the staff would be aware of them. 90% of establishments report that they do not carry out research in the area of triage<sup>(40)</sup>.

All this presents a panorama of inadequate implementation of the triage area in Emergency services of health establishments in Lima, so in an environment of improvement of the quality of care and in order to improve the care of the critical patient, standards of the governing body in health in order to standardize modern concepts on triage and implement an area so important and in many cases decisive in the primary care of the emergency patient.

### CONCLUSION

Triage determines the patient's life-threatening situation, provides the patient with information about their health status and the approximate waiting time according to their clinical severity. The triage should be performed in a structured and modern triage system.

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