

# USER EMBRACEMENT WITH RISK ASSESSMENT AND CLASSIFICATION: THE STRUCTURE AND PROCEDURE OF ATTENDANCE

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## ACOLHIMENTO COM AVALIAÇÃO E CLASSIFICAÇÃO DE RISCO: ESTRUTURA E PROCESSO DO ATENDIMENTO

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## ACOGIMIENTO CON EVALUACIÓN Y CLASIFICACIÓN DE RIESGOS: ESTRUCTURA Y PROCESO DE SERVICIO

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Objective: assessing the structure and the process of user embracement with risk classification in an emergency unit according to the recommendations of the Ministry of Health. Method: descriptive and exploratory study, carried out in an emergency unit in Bahia. The investigation techniques used were the systematic observation and the interview with nurses. Comparisons and confrontations of the evaluations of the qualitative dimensions of structure and procedure were used for analysis. Results: the resources available for the functioning of risk classification, with regards to physical structure, material resources, and the flow of attendance partially include the elements prescribed. There are shortcomings, such as the signaling of spaces, the absence of some materials in the risk classification room, the non-compliance with waiting times and the formal absence of references/counter-references. Conclusion: the structure and the procedure of user embracement with risk classification in an emergency unit need adjustments in its space and supplies, to be in accordance with the requirements of the Ministry of Health.

Descriptors: Nursing. User Embracement. Triage. Emergency Medical Services.

*Objetivo: avaliar a estrutura e o processo do acolhimento com classificação de risco em uma unidade de emergência de acordo com as recomendações do Ministério da Saúde. Método: estudo descritivo e exploratório, realizado em uma unidade de emergência da Bahia. As técnicas de investigação foram a observação sistemática e a entrevista com enfermeiros. Para a análise foram feitas comparações e confrontações das avaliações das dimensões qualitativas de estrutura e processo. Resultados: os recursos disponíveis para o funcionamento da classificação de risco, quanto à estrutura física, recursos materiais e ao fluxo de atendimento contemplam parcialmente o que é preconizado.*

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*Existem lacunas, como sinalização dos espaços, ausência de alguns materiais na sala da classificação de risco, o não cumprimento do tempo de espera e ausência formal da referência/contrarreferência. Conclusão: a estrutura e o processo do acolhimento com classificação de risco em uma unidade de emergência precisa de adequação do espaço físico e do suprimento total de recursos para cumprir o que é proposto pelo Ministério da Saúde.*

*Descritores: Enfermagem. Acolhimento. Triage. Serviços Médicos de Emergência.*

*Objetivo: evaluar estructura y proceso de atención clasificada por riesgo en unidad de urgencia según recomendaciones del Ministerio de Salud brasileño. Método: estudio descriptivo y exploratorio, en unidad de urgencia en Babia, Brasil, cuyas técnicas de investigación fueron observación sistemática y entrevista con enfermeros. Para análisis, se realizaron comparaciones y confrontaciones de las evaluaciones de dimensiones cualitativas de estructura y proceso. Resultados: los recursos disponibles para funcionamiento de la clasificación de riesgos, con respecto a la estructura física, los recursos materiales y flujo de asistencia contemplan parcialmente lo que se recomienda. Hay lagunas, como señalización espacial, ausencia de materiales en la sala de clasificación de riesgos, incumplimiento del tiempo de espera y ausencia formal de referencia/contrarreferencia. Conclusión: estructura y proceso de atención clasificada por riesgo en unidad de urgencia necesitan espacio físico adecuado y suministro total de recursos para cumplir con lo que propone el Ministerio de Salud brasileño.*

*Descriptorios: Enfermería. Acogimiento. Tamización. Servicios Médicos de Urgencia.*

## Introduction

The risk classification system, also called User Embracement with Risk Assessment and Classification (AACR) has been gradually implanted in the emergency services in Brazil<sup>(1)</sup>. Currently, this methodology is incorporated both in emergency hospital wards and in Emergency Units<sup>(2)</sup>, considering the excessive demand for attention. The risk assessment (CR) emerged from the need to adopt a criteria to organize the demand not by order of arrival, but by the severity of the clinical situation<sup>(3-4)</sup>.

In Brazil, the overcrowding of Emergency Services (SE) is a result of many factors: high incidence and prevalence of tropical diseases, such as arboviruses; transitions in the epidemiological profile of the population and morbidities and mortalities related to circulatory system diseases; insufficient structuring of the network of assistance; and an increased number of auto accidents and urban violence. These factors have contributed to overcrowd the service, a situation which directly affects the quality of the assistance offered to the patient<sup>(3,5)</sup>. In addition, it can be observed that patients resort to these services to receive care for diseases of low severity<sup>(5)</sup>.

Considering the setting and the complexity of the organization of the public service network, the

National Program of Evaluation of Health Services has been encouraging a culture of assessment in establishments that are a part of the Unified Health System (SUS). This program establishes dimensions for assessments, including structure, work procedures, results, the production of care, the management of risks, and the satisfaction of users regarding the service received<sup>(6)</sup>.

On the other hand, the AACR is one of the main interventions in the reorganization of emergency services, and is potentially decisive in this process<sup>(3)</sup>. The components of its structure, the identification of physical and material resources, and the process of user attention are priority fields for carrying out an evaluation. Therefore, this study is justified by the need to perform a quality assessment of this service, understanding that this is the first study developed to carry out such evaluation with regards to the quality of risk classification after its implantation. In addition, it is necessary to identify shortcomings in the assistance and establishing improvement strategies that can guarantee more efficiency and efficacy in the attention to urgency and emergency, offering more security for users and professionals involved in this activity.<sup>(7)</sup>

Considering this context, the following research question was raised: How is it

that the AACR structure and procedure of embracement are implanted in an emergency unit? Is it in accordance to what is prescribed by the Ministry of Health (MS)? To do so, this study aimed at assessing the structure and the process of user embracement with risk classification in an emergency unit according to the recommendations of the Ministry of Health.

## Method

Cross-sectional and descriptive study carried out in the emergency unit of a general, public, high complexity hospital in Santo Antônio de Jesus, Bahia, which receives spontaneous and referred demands from the 32 neighboring cities that are a part of the region Recôncavo baiano. The main medical specialties offered by the institution are: medical clinic, pediatric clinic, general surgery, orthopedics, and traumatology.

The emergency unit had a mean of 7,518 patients attended monthly, considering the months from December 2014 to June 2015, period in which data for this investigation were collected. The service used an institutional protocol to carry out risk assessment (CR). The model adopted was based on the User Embracement Risk Assessment Booklet proposed by the MS and on the State Protocol for Risk Assessment by the Health Secretariat from the State of Bahia<sup>(8)</sup>.

The investigation technique used was the systematic observation, which was carried out in the morning, afternoon, and night shifts, with the use of an observation script previously elaborated by the researchers, adapted from the study by Mendes<sup>(9)</sup>, and containing the following elements: information assessment; comfort; dignity and politeness; privacy during attention, embracement, and risk assessment; prioritization in user attention and care. In addition, an interview was carried out with nurses from the ES to aid in the completion of a structured form, based on recommendations by the MS<sup>(3)</sup> and containing items related to physical structure, material resources, and others, such as: human resources available in the emergency services (number of nurses and nursing technicians),

working hours, classification of attention, number of nurses taking part in risk classification, protocol used for classification, basic materials used, time spent waiting for medical attention, and time for the reevaluation of the patient by the nurse.

Organization, process, analysis, and interpretation of information were based on the study by Mendes<sup>(9)</sup>, that is: in the first stage, primary data obtained from each instrument were valued; in the second one, data was contextualized, compared, and confronted, considering, as their main axis of analysis, the assessment of the quality dimensions defined by the research — assessment of structure (access, comfort, dignity and politeness, and material resources), and of the procedure (privacy during attention, embracement and risk classification, prioritization of user attention, and user assistance).

This research was approved by the Research Ethics Committee (CEP) from the Universidade Federal do Recôncavo da Bahia, under protocol nº 773.010/14, and followed the recommendations from Resolution nº 466/12 from the National Council of Health, regarding researches involving human beings.

## Results

In the emergency unit evaluated, the AACR was implanted in 2009, as the hospital was inaugurated. To cater to the demand of patients who sought this service, the emergency unit (EU) had 22 nurses and 45 nursing technicians. Five of the nurses worked exclusively with CR. The CR took place in a room that was used specifically for this end, in the three turns of the day, continuously, with a daily mean of 259 patients. The prioritization of user attention was carried out through the use of a specific protocol, which stratified the risk in four levels of priority: red (emergency), yellow (urgent), green (not very urgent), and blue (not urgent).

The findings regarding the assessment of the structure involved attributes related to information access, comfort, dignity and

politeness, and material resources (Chart 1). It should be highlighted that the evaluation of the AACR structure included the internal emergency sector and the embracement area of the hospital being studied. Regarding the assessment of the structure of the emergency unit, it can be noted that the resources available for the AACR

to function, with regards to physical structure and material resources, were partially covered, considering the prescriptions from the MS. It was found that there are gaps, such as the inadequate signaling of spaces and the absence of some materials in the risk classification room.

**Chart 1** – Synthesis of the assessment of the structure of the Embracement with Risk Assessment and Classification and of the emergency unit under study

<b>Dimension assessed</b>	<b>Results</b>
Information access	There were signs indicating the spaces, but without color coding.
Comfort	The number of chairs to accommodate users and their companions was not enough to deal with the demand; the furniture was well kept and clean; and the beds were found to have mattresses, and to be covered by linen and clean.
	The spaces were adequately cleaned, except for the bathrooms in the reception, which were found to be dirty and lacked hygiene materials.
	Ventilation was carried out through windows; only the reanimation room was refrigerated.
	The lighting was adequate and safe for users and professionals.
	There were many unpleasant noises, both internal and external, especially during the day.
Dignity and Politeness	There was a box for suggestions, complaints and/or doubts in the reception, made available for the users.
	There was not accommodation for companions, except in the Social Services room and in the pediatric ward.
	Companions could only enter with children or the elderly.
Material resources	The following materials were not found in the room for Embracement with Risk Assessment and Classification: multiparameter monitor, Electrocardiogram machine, rigid stays, bag-mask-valve (air stacking). Emergency medications were not found in the room for Embracement with Risk Assessment and Classification.

Source: Created by the authors.

The evaluation of the attention procedure of the AACR involved items related to privacy during the attention, AACR functioning, prioritization, and user assistance (Chart 2). The resources available for the functioning of the CR became evident in the observations found with regards to the organizational procedure of the AACR and in the responses of nurses. With regards to the flow of attention, they also partially adhered to the recommendations of the Ministry of Health. Shortcomings were found, such as the non-compliance of the estimate waiting time, and the

formal absence of referrals and counter-referrals. The CR was carried out by only one nurse. Most reported to be under an excessive workload at CR. The work in the CR consisted in case history, a brief physical exam, and vital signs assessment, after which the users were stratified according to risk and to the clinical framework presented and were directed to the adequate attention. In addition, a high demand of patients seeking service stood out, among which were those with non-urgent frameworks (blue), which are referred to or guided to seek other health services.

**Chart 2** – Synthesis of elements from the assessment of the attention procedures in the Embrace with Risk Assessment and Classification

<b>Dimension assessed</b>	<b>Space being assessed</b>	<b>Results</b>
Privacy during attention	Room for the Classification of Risk and Emergency Unit	When examined, the user was not, in most cases, exposed to anyone other than the health professionals.
Embrace with Risk Assessment and Classification	Reception, Risk Classification and Emergency Unit	The multiprofessional team was not always available to guarantee an integral assistance to the user during arrival or during their permanence.
	Reception	The professionals, most times, were helpful and clarified doubts of users in a humane way. The information that users needed was not always offered at arrival or during their waiting time.
	Risk Classification and Emergency Unit	It was determined that Risk Classification would define priority in attention.
	Reception and Risk Classification	When users were classified as “blue”, they were referred to other services. In most cases they were not formally referred (referral/counter-referral form).
Prioritization in user care	Reception, Risk Classification and Emergency Unit	The waiting time of the user was measured at arrival (form completion) until they were evaluated by the nurse for Risk Classification; and then, from Risk Classification up to the moment they were attended by the physician. The users were informed how long they would have to wait for attention. In most cases, when the waiting time was higher than the one already indicated, the users would not be notified. In most cases, the more severe cases were prioritized. There was no reevaluation of the user, when the waiting time was extrapolated. If there was any complication, reevaluation took place.
	Risk Classification and Emergency Unit	All users went through Risk Classification, except emergencies (red). There was one nurse acting daily in Risk Classification. The nurse managed to attend to the demand but complained about work overload.
User assistance	Reception and Risk Classification	During the arrival of the user, the completion of the form, and the nursing consultation during Risk Classification, the professionals, in most cases, offered an active listening.
	Risk Classification	The nurse performed a superficial physical examination, according to the Main Complaint of the user.
	Risk Classification and Emergency Unit	The completion of the form with the Main Complaint and the physical exam of the user was carried out adequately, and all information collected was registered.
	Risk Classification	The nurse had autonomy to require exams and refer the patients elsewhere.

Source: Created by the authors.

## Discussion

Since this is an emergency hospital service, a reference for the Recôncavo baiano region, and considering that the implantation of the AACR technology in the service took place in its

inauguration, the evaluation of the structure and its procedures is paramount, since they refer to the conditions offered to users and to procedures carried out, in addition to subsidizing managerial decision-making<sup>(7)</sup>.

For the AACR to be efficiently developed, in addition to trained professionals and a protocol that can attend to the demands of the population, an adequate physical structure is necessary. This structure is represented by the organization of space, of physical resources, and of adequate materials whose main items favor the working processes<sup>(1,3)</sup>.

The structure assessment includes all material and organizational attributes that are relatively stable in the sector, so it can offer assistance<sup>(10)</sup>. Shortcomings were found in the sectors of CR, reception and emergency, regarding user access to information, comfort, dignity and politeness, in addition to physical structure and material resources.

Regarding the AACR structure evaluation, when it comes to information access, it was found that, in some fields, the signaling was lacking, meaning the patients had to seek the aid of institution workers to go to other spaces. There are signs in the reception indicating the CR consultation room, the physicians' offices, the social service room, the suture room, the plaster room, male, female and pediatric observation rooms, the stabilization room, the reanimation room, and the nursing station, but these spaces were not color coded. Therefore, the MS suggests for the field of AACR to be organized in two different axes: red, for patients in severe conditions or risk of death, and blue for patients who seem not to be in this condition. Each axis should be subdivided in fields that should also be color-coded, according to the activities developed there<sup>(3)</sup>.

A piece of data that calls attention in the evaluation of the physical structure is that, despite the fact that the evaluated UE had all required facilities, according to the prescriptions, certain spaces were laid out differently, and the reanimation room was neither well located nor was it signed, which could have repercussions in the fast transference of severe patients. In situations such as cardiopulmonary arrest, respiratory failure, convulsive crisis, among others that require immediate care, there can be no delays in the referral or in the search for

equipment, materials, or medications required for the attention<sup>(5)</sup>. This shortcoming is similar to the reality found by a research in an Emergency Unit (UPA) in the south of the country, which pointed out weaknesses in the physical structure of the service, thus contributing for the weakness of the work procedure<sup>(10)</sup>.

Another aspect to be highlighted with regards to structure evaluation is related to comfort. Although furniture was clean and well kept, the number of chairs in the reception was insufficient to accommodate all users and companions, a reflex of the overcrowding that corroborated the findings of other studies<sup>(9,11-12)</sup> in which user comfort was considered insufficient. This piece of data deserves attention, since, from the perspective of humanization, embracing the patient is paramount, although improvements in the physical space, including comfortable armchairs, areas for resting and entertainment, and other similar places, are expensive for managers<sup>(12)</sup>.

Regarding the accommodation of companions and their right to stay with the users who are being attended, it was found that this was not always possible, it being prohibited for them to accompany patients who were not children or elderly. This weakness is similar to other settings, in which the physical structure was a factor that limited the access of companions during the waiting period and the offering of attention, be it due to the lack of appropriate rooms, lack of privacy, or, yet, due to overcrowding<sup>(1,13)</sup>.

It is important to remember that the AACR has an interface with the National Humanization Policy (PNH), both with regards to environment and to the right of having a companion<sup>(3)</sup>, and this policy guarantees the right to open visits, the presence of a companion, and one's social network. However, the dynamics of each hospital unit should be respected, as well as the particularities of each user's needs. Therefore, the emergency unit should seek to welcome companions, offering waiting places and listening environments that are welcoming and humanized, so they can comfortably wait for the information about the clinical situation of the

patients, when their presence at bedside is not possible<sup>(3,10)</sup>.

Assessing the dignity and politeness dimensions involves the right of the individual to be treated as a person and not only as a patient<sup>(9)</sup>. Regarding this evaluation, the presence of a suggestion box at the reception stands out, since it is there to receive the opinions of users. It is important for managers and professionals to know what the perception of the user about their services is. A study pointed out that it is essential to acquire information from patients who use the AACR, since they participate in its entire process of construction and validation<sup>(14)</sup>.

The results of the evaluation of material resources available for the AACR made it clear that, despite how long the AACR had been implemented in the institution, some materials prescribed by the MS<sup>(3)</sup> were still missing from the CR room, such as: multiparameter monitor, EKG, and instruments for cardiopulmonary reanimation. The deficit with regards to material resources, expressed by the absence or poor condition of these materials may even influence on the overcrowding of the unit, since it negatively impacts the flow of actions to be conducted<sup>(15)</sup>.

Analyzing the dimensions of the structure of the service under study made it clear that environment adequacy and intervention focused on the structure and organization of the emergency unit are essential for an efficient care to be offered to the CR patient<sup>(16)</sup>. The assessment of the procedure includes all assistance that the health team, as a group of health providers, offers to its patients, and their competence in doing so<sup>(17)</sup>. The appreciation of procedural elements seen in Chart 2 also indicates some weaknesses.

The dimension of privacy, assessed during the attention in the CR room at the UE is related to the offering of attention in conditions that protect the privacy of the person and do not expose them to embarrassing situations<sup>(9)</sup>. When examined, the user was found not to be, in most cases, exposed to anyone other than the health professionals. However, the door to the CR room was frequently open, allowing the free entrance

of other professionals and even other users who continuously arrived seeking attention.

Other studies evaluated privacy in the UE attendance. One of them found, by asking users themselves, that they were dissatisfied<sup>(9)</sup>; another showed that the nurses disagreed that risk classification offered embracement and privacy to the patient<sup>(16)</sup>. Therefore, maintaining the privacy when confronted with situations of physical, emotional, and/or psychic weakness becomes an individual right of users, which involves situations related to privacy in consultations, to respect to the dignity of subjects, and to the protection of their intimacy. Therefore, health professionals have the ethical responsibility and the commitment to guarantee the privacy and the anonymity of patients<sup>(10,18)</sup>.

The evaluation of the clinical state of the patient stood out, with regards to the determination of the priority of care. The path the user traverses inside the service studied is in accordance to the prescriptions of the MS<sup>(3,5)</sup>. When the patients arrive at the UE, they complete a form in the reception and wait for the nurse to attend them in the CR room. However, the more serious cases are, in fact, prioritized, that is, the patients classified as red, as well as those with no previous assessment, who arrive at the hospital under imminent threat of death, receive immediate care. The other cases are classified according to their clinical severity and wait for medical attention.

This result reiterates the objective of the triage in international and national services with regards to determining and classifying the patients fast, in order of urgency, based on clinical need<sup>(16)</sup>. Therefore, this methodology is seen as one that promotes less health problems to users, since it makes it easier to classify and guide the flow of patients in such a way that those in worse conditions have priority over the others<sup>(10)</sup>.

An international study also recognized that patients in the acute stage of the disease face unacceptable delays when they are attended for the first time in the SE, due to the lack of risk classification or its inadequacy<sup>(19-20)</sup>. In an attempt to solve problems of the type, health

systems from different countries have created different ways to carry out classificatory risk triages<sup>(19)</sup>. In the setting evaluated, the use of an institutional CR protocol was observed. It guided the decision-making of the nurse with regards to prioritizing the attention according to four levels. The use of pre-established protocols in AACR is necessary and must answer to the demands of the population and accept the individuality of patients in all aspects. It also offers legal support for the decision-making of CR nurses<sup>(15-16)</sup>.

When the patients arrive at the emergency service, their access to the CR sector must be immediate<sup>(21)</sup>. Therefore, the length of time the users wait in the process of being attended at the AACR is an important feature to be evaluated. CR activities take place in an environment where there is time pressure, sometimes meeting the dissatisfaction of users due to the length of time they spend waiting for attention<sup>(22)</sup>. In this study, it was found that the length of time the user waited to be classified was measured at arrival (completion of the form) and the user received an estimate of how long they would have to wait for medical care. This wait should be less than 120 minutes for patients with less urgent cases<sup>(21)</sup>. However, it is remarkable that, during this time, in many cases, the wait lasts longer, and the users are rarely warned that it will. In addition, they are not evaluated again, unless there is some aggravation in their clinical status, which will always receive priority.

The reclassification of patients throughout the waiting for medical attention is extremely important, since their clinical conditions may deteriorate due to the long wait, which often happens<sup>(10)</sup>. The nurse must be prepared to classify and reclassify, when needed, the priority of the attention to users who have been waiting for long. To do so, their evaluation must be cyclical<sup>(21)</sup>, that is, continuously planning and reevaluating users, regardless of how long they are waiting for medical attention.

Still concerning the process of AACR assessment, it was found, during observation, that the CR was carried out by a single nurse. The nurses understood that there was an overload

of work at CR, despite the fact they attended everyone who searched for it. The overcrowding of the emergency service was found in this study, and became most evident during peak working hours, from 10 a.m. to 6 p.m.

Studies developed in emergency services have shown that the low number of nurses in the CR, when confronted with the excessive demands and the conflicts that result from prioritizing care, are factors that lead these professionals to go through emotional exhaustion and overload<sup>(12,23)</sup>. Therefore, it is essential to rethink personnel sizing, as well as to take into account the protocol of Risk Classification from the State of Bahia, which recommends the participation of the nursing technician in the CR. Among the attributions of these workers, stand out an embracing attention to the user, reception for embracement and identification of possible situations of urgency and assessment of vital signs, immediate observation and referral to the risk classification room when adequate<sup>(8)</sup>.

Regarding the process of evaluation of the assistance offered to the patient in the AACR, it was found that, during the arrival of the user, during the completion of the form by the reception workers and during the nursing CR consultations, the professionals, most of the times, did a qualified listening. This study found that the action of embracing the users was carried out almost exclusively in reception and in the CR room, as opposed to the MS prescriptions, according to which embracing a user in the SE and in all emergency spaces is something that can be carried out by any health professional trained to this end<sup>(3)</sup>. Only the CR is a responsibility of the nurse. This professional is also responsible for the decisions to be made about the level of clinical priority<sup>(1)</sup>.

To develop the CR, the nurse, in addition to actively listening to the situation/complaint, to acquiring a quick case history and conducting anamnesis, carries out a physical exam and assesses vital signs. The information found were adequately registered and the physical exam of the user was fast and targeted at the main complaint. Therefore, the active listening



of the complaints allied to the commitment of answering the health needs of the patients during the clinical situation evaluation, is an important ability of nurses in the CR process<sup>(16)</sup>.

Another item evaluated during AACR was the working process of the nurse in the CR, which is related to the autonomy to require exams and give referrals. For these cases, it was found that, when a patient arrived with a complaint of thoracic pain, with or without irradiation, intense sweating, palpitations, or any other sign of acute coronary disease, the nurse, oftentimes, suggested carrying out an EKG even before medical evaluation, in order to provide a fast attention and prioritize the patient if need be. This finding is supported by an international study, as it shows that nurses from the SE must know how to anticipate care and conduct fast interventions, appropriate to answer to the physiological deficit presented by the patient. In addition, the nurse has a group of competencies based on the objective of attending to the needs of the patient and optimizing the results<sup>(24)</sup>.

Some dimensions of the evaluation of the AACR attention process present challenges, such as the referral of users after CR. It was found that some of those who went through the AACR were not directed for medical attention. When patients were classified as blue (not urgent), they were referred to receive attention in the outpatient clinic of the hospital itself or to a primary healthcare unit (UBS) or another health institution.

Considering the MS recommendation, in a low-gravity situation, the user must be referred/counter-referred to another point of the attention network, in order to guarantee they receive attention<sup>(3,5)</sup>. However, it was found that the referral offered by the nurses in this study was informal, and many users were directed to other gateways to the health system with no form of referral or counter-referral. Another study points out that the mechanisms of referral and counter-referral within the network are fragile, which interferes in the integral care to the user. That partly explains the difficulties in referring patients who need low complexity care to the closest

UBS<sup>(12)</sup>. In addition, it contributes for patients to come back several times to the emergency without having their problems solved, which overcrowds the services<sup>(10,13)</sup>.

It is worth remembering that Resolution 2.077/2014 from the Federal Council of Health, which prescribes on the normalization of SE functioning and states that the implantation of AACR is mandatory in the attention of the services, establishes that all patients who have access to the SE should, necessarily, receive attention from a physician, and cannot, under any circumstance, be discharged or referred to another health unit by any professional except from the physician<sup>(20)</sup>.

The patients may also refuse being referred to other services. In this case, the institution cannot deny attention, since the AACR is not excluding<sup>(3,7)</sup>. In the health service this study assessed, the working process was structured to be developed based on actions that prioritized more serious cases for attention. A systematic review study developed with international reserches identified several reasons why patients chose to access the SE. Among them, the following stood out: lack of access and confidence in primary care; perception of urgency, anxiety, and the reiteration of services based on emergency; convenience (location, not requiring previous scheduling for consultations, and working hours) and individual factors related to the patient (such as cost).

This investigation was limited by the fact that it was made up of attributes of the structure and of the attention process of the AACR. Therefore, it does not include an evaluation of the results of the AACR implantation. One of the aspects considered during the evaluation of the results is user satisfaction<sup>(9)</sup>. However, it stands out that the evaluation of the health services by the patient can be influenced by the structure and by the way in which the health professionals offer assistance to the patients. Another factor that can be seen as limiting to understand the weaknesses found in the CR is the fact that this study did not use, to assess the structure and procedure dimensions, a validated instrument

that could also portray the reality of the different emergency services in Brazil. Therefore, future studies are necessary to evaluate the practice of CR in emergency services, aiming at contributing to deal with the weaknesses identified in this study, improving the quality of user care.

## Conclusion

The evaluation of the AACR in the SE of the institution under study showed advances and potentials, as well as weaknesses and challenges to be overcome. Among the more relevant aspects, stand out: the emergency unit is a reference in the region for the attention of many specialties; the AACR functioning is continuous; the professionals responsible for embracement are the nurses, who also carry out the risk assessment and classification of patients who seek the services. The procedure is guided by a specific protocol that directs it and stratifies risk in four colors, according to an ordering criterion that characterizes priorities according to the clinical severity of the user.

The physical structure and the material resources are for the most part in accordance to the prescriptions of the Ministry of Health, as is the flow of attention. There are, however, shortcomings with regards to the estimate waiting time, which often is extrapolated, and to the absence of formal referrals and counter-referrals, which interfere in the guarantee of integral attention to the AACR user.

Regarding the weaknesses, the following stand out: lack of color-coding of the signs that indicate spaces and lack of integration between the axes; lack of resources to accommodate the companions; lack of some materials for risk classification. Embracement and qualified listening are almost exclusively carried out in the CR rooms, unlike the prescriptions of the MS.

Therefore, the framework found on the emergency service evaluated shows a need for technological investments to improve the quality of the services offered, since the material resources available are still not ideal with regards to the prescriptions. The AACR must be

understood as a strategy within the institution, and its efficacy should be continuously reevaluated, this guaranteeing patient safety.

This study allowed to conclude that the structure and the process of user embracement with risk classification in an emergency unit needs its space to be adequate and all the supplies required to attend to the requirements of the Ministry of Health.

## Collaborations:

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2 – writing of the article and relevant critical review of the intellectual content: Ana Paula Santos de Jesus, Guiomar Rocha Pimentel Pimenta Rodrigues, Larissa Oliveira de Jesus, Meiry Fernanda Pinto Okuno and Ruth Ester Assayag Batista;

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## References

1. Inoue KC, Murassaki ACY, Bellucci Júnior JA, Rossi RM, Martinez YDE, Matsuda LM. Acolhimento com classificação de risco: avaliação da estrutura, processo e resultado. *Rev Min Enferm* [Internet]. 2015 [cited 2017 Apr 10];19(1):13-20. Available from: <http://www.reme.org.br/artigo/detalhes/982>
2. Machado CV, Lima LD, O'Dwyer G, Andrade CLT, Baptista TWF, Pitthan RGV, et al. Gestão do trabalho nas Unidades de Pronto Atendimento: estratégias governamentais e perfil dos profissionais de saúde. *Cad Saúde Pública* [Internet]. 2016 [cited 2017 May 12];32(2):e00170614. Available from: [http://www.scielo.br/scielo.php?script=sci\\_arttext&pid=S0102311X2016000200704&lng=pt&tlng=pt](http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0102311X2016000200704&lng=pt&tlng=pt)
3. Brasil. Ministério da Saúde. Secretaria-Executiva. Núcleo Técnico da Política Nacional de Humanização. *Humaniza SUS: acolhimento com avaliação e classificação de risco: um paradigma ético-estético no fazer em saúde*. 2a ed. [Internet]. Brasília; 2004. (Série B. Textos Básicos de Saúde). [cited 2017 Apr 21]. Available from: <http://>

- www.saude.sp.gov.br/resources/humanizacao/biblioteca/pnh/acolhimento\_com\_avaliacao\_e\_classificacao\_de\_risco.pdf
4. Anziliero F, Soler BED, Silva BA, Tancini T, Beghetto MG. Sistema Manchester: tempo empregado na classificação de risco e prioridade para atendimento em uma emergência. *Rev Gaúcha Enferm* [Internet]. 2016 dez [cited 2017 Apr 15];37(4):e64753. Available from: file:///C:/Users/guigu/Desktop/Artigos%20AACR/0102-6933-rngenf-1983-144720160464753.pdf
  5. Brasil. Ministério da Saúde. Portaria GM/MS nº 2.048, de 5 de novembro de 2002. Aprova o Regulamento Técnico dos Sistemas Estaduais de Urgência e Emergência [Internet]. Brasília; 2002 [cited 2017 Apr 10]. Available from: [http://bvsm.sau.gov.br/bvs/saudeflegis/gm/2002/prt2048\\_05\\_11\\_2002.html](http://bvsm.sau.gov.br/bvs/saudeflegis/gm/2002/prt2048_05_11_2002.html)
  6. Brasil. Ministério da Saúde. Portaria nº 28, de 8 de janeiro de 2015. Reformula o Programa Nacional de Avaliação de Serviços de Saúde (PNASS) [Internet]. Brasília; 2015 [cited 2017 May 4]. Available from: [http://bvsm.sau.gov.br/bvs/saudeflegis/gm/2015/prt0028\\_08\\_01\\_2015.html](http://bvsm.sau.gov.br/bvs/saudeflegis/gm/2015/prt0028_08_01_2015.html)
  7. Bellucci Júnior JA, Vituri DW, Versa GLGS, Furuya PS, Vidor RC, Matsuda LM. Acolhimento com classificação de risco em serviço hospitalar de emergência. Avaliação do processo de atendimento. *Rev enferm UERJ*. 2015 jan/fev;23(1):82-7. DOI: <http://dx.doi.org/10.12957/reuerj.2015.4976>
  8. Bahia Secretaria de Saúde do Estado. Protocolo Estadual de Classificação de Risco [Internet]. Salvador; 2014 [cited 2017 May 4]. 54 p. Available from: [http://www.saude.ba.gov.br/wp-content/uploads/2017/06/protocolo\\_classificacaoderisco\\_jun\\_2017.pdf](http://www.saude.ba.gov.br/wp-content/uploads/2017/06/protocolo_classificacaoderisco_jun_2017.pdf)
  9. Mendes ACG. A delicadeza esquecida: avaliação da qualidade das Emergências. Recife: EdUFPE; 2010.
  10. Hermida PMV, Nascimento ERP, Echevarría-Guanilo ME, Brüggemann OM, Malfussi LBH. User embracement with risk classification in an emergency care unit: an evaluative study. *Rev Esc Enferm USP*. 2018;52:e03318. DOI: <http://dx.doi.org/10.1590/s1980-220x2017001303318>
  11. Souza TH, Andrade SR. Embracement with risk classification: an indicator of the emergency demand on a hospital service. *Cogitare Enferm* [Internet]. 2014 [cited 2017 Apr 10];19(4):643-50. Available from: <http://revistas.ufpr.br/cogitare/article/view/35941/23932>
  12. Costa MAR, Versa GLGS, Bellucci Júnior JA, Inoue KC, Sales CA, Matsuda LM. Acolhimento com Classificação de Risco: Avaliação de Serviços Hospitalares de Emergência. *Esc Anna Nery* [Internet]. 2015 jul-set [cited 2017 Apr 25];19(3):491-7. Available from: <http://www.scielo.br/pdf/ean/v19n3/1414-8145-ean-19-03-0491.pdf>
  13. Hedlund ACB, Ilha CB, Hoffmann IC, Krusche JB, Pimenta LF, Braz MM. Percepção de profissionais sobre acolhimento com classificação de risco no centro obstétrico. *Saúde (Santa Maria)* [Internet]. 2015 jul/dez [cited 2017 Feb 25];41(2):149-60. Available from: <https://periodicos.ufsm.br/revistasaudeflegis/article/view/15059>
  14. Oliveira JLC, Gatti AP, Barreto MS, Bellucci Junior JA, Góes HLF, Matsuda LM. Acolhimento com classificação de risco: percepções de usuários de uma unidade de pronto atendimento. *Texto Contexto Enferm*. 2017;26(1):e0960014. DOI: <http://dx.doi.org/10.1590/0104-07072017000960014>
  15. Prudêncio CPG, Monteiro RAN, Ribeiro BCM, Gomes MSM, Manhães LSP. Percepção de enfermeira(o)s sobre acolhimento com classificação de risco no serviço de pronto atendimento. *Rev baiana enferm*. 2016 [cited 2017 Feb 20];30(2):1-10. Available from: [https://portalseer.ufba.br/index.php/enfermagem/article/view/14917/pdf\\_46](https://portalseer.ufba.br/index.php/enfermagem/article/view/14917/pdf_46)
  16. Duro CLM, Lima MADS, Weber LAF. Opinião de enfermeiros sobre classificação de risco em serviços de urgência. *REME rev min enferm*. 2017;21:e1062. DOI: <http://www.dx.doi.org/10.5935/1415-2762.20170072>
  17. Rocha AD, Sousa CPC, Pedraza DF, Queiroz D. Atenção básica à saúde: avaliação de estrutura e processo. *Rev Adm Saúde* [Internet]. 2012 [cited 2017 Feb 25];14(55):71-9. Available from: [www.cqh.org.br/portal/pag/anexos/baixar.php?p\\_ndoc=276&p\\_nanexo=321](http://www.cqh.org.br/portal/pag/anexos/baixar.php?p_ndoc=276&p_nanexo=321)
  18. Soares NV, Dall'Agnol CM. Privacidade dos pacientes: uma questão ética para a gerência do cuidado em enfermagem. *Acta paul enferm* [Internet]. 2011 [cited 2017 May 16];24(5):683-8. Available from: <http://www.lume.ufrgs.br/handle/10183/38500>
  19. Schuetz P, Hausfater P, Amin D, Haubitz S, Fässler L, Grolimund E, et al. Optimizing triage and hospitalization in adult general medical emergency

- patients: the triage project. *BMC Emerg Med.* 2013 jul;13:12. DOI: 10.1186/1471-227X-13-12
20. Sunyoto T, Vander Berg R, Valles P, Gutierrez R, Ayada L, Zachariah R, et al. Providing emergency care and assessing a patient triage system in a referral hospital in Somaliland: a cross-sectional study. *BMC Health Serv Res.* 2014 Nov 6;14:532. DOI: 10.1186/s12913-014-0531-3.
21. Conselho Federal de Medicina. Resolução nº 2.077, de 24 de julho de 2014. Dispõe sobre a normatização do funcionamento dos Serviços Hospitalares de Urgência e Emergência, bem como do dimensionamento da equipe médica e do sistema de trabalho. Brasília; 2014 [Internet]. [cited 2017 Apr 17]. Available from: <https://www.legisweb.com.br/legislacao/?id=274741>
22. Carter EJ, Pouch SM, Larson EL. The relationship between emergency department crowding and patient outcomes: a systematic review. *J Nurs Scholarsh.* 2014 [cited 2019 Aug 18];46(2):106-15. Available from: <https://sigmapubs.onlinelibrary.wiley.com/doi/abs/10.1111/jnu.12055>
23. Hitchcock M, Gillespie B, Crilly J, Chaboyer W. Triage: an investigation of the process and potential vulnerabilities. *J Adv Nurs.* 2013 [cited 2019 Aug 18];70(7):1532-41. Available from: <https://onlinelibrary.wiley.com/doi/abs/10.1111/jan.12304>
24. Cypress BS. The emergency department: experiences of patients, families and their nurses. *Adv Emerg Nurs [Internet].* 2014 [cited 2019 Aug 18];636(2):164-76. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/24785669>
25. Coster JE, Turner JK, Bradbury D, Cantrell A. Why do People Choose Emergency and Urgent Care Services? A Rapid Review Utilizing a Systematic Literature Search and Narrative Synthesis. *Acad Emerg Med.* 2017 Sep;24(9):1137-49. doi: 10.1111/acem.13220

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