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Acute chest pain: nurses challenging a time-dependent pathology at the hospital entrance doors

Dor torácica aguda: enfermeiro desafiando uma patologia tempo dependente nas portas de entrada hospitalares

Dolor torácico agudo: enfermero desafiando una patología dependiente del tiempo en las puertas de entrada hospitalarias

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Abstract: Objective: to assess the perception of nurses in the face of patients with chest pain at the entrance doors of the Urgent and Emergency Service in a general hospital. **Method:** exploratory and descriptive study, with a qualitative approach, carried out with 10 nurses in a large general hospital in Rio Grande do Sul, in 2018. Data collection occurred through semi-structured interviews, studied according to content analysis. **Results:** there were difficulties in understanding the Risk Classification, structural and organizational issues, besides the lack of qualified professionals. As for potentialities, care in a quick way, seeking the most correct identification of the signs presented by the patient and the accomplishment of the electrocardiogram in the appropriate time. **Conclusion:** it was evidenced that the nurse perceives to be able to make quick and accurate decisions through the knowledge of care protocols. Nevertheless, there is interference from processes such as undersizing of personnel and the excessive demand for entrance door services.

Descriptors: Heart Diseases; Nursing; Emergencies; Chest Pain

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Resumo: Objetivo: avaliar a percepção dos enfermeiros diante do paciente com dor torácica nas portas de entrada do Serviço de Urgência e Emergência de um hospital geral. **Método:** estudo exploratório, descritivo, com abordagem qualitativa, realizado com 10 enfermeiros em um hospital geral de grande porte do Rio Grande do Sul, em 2018. A coleta de dados ocorreu através de entrevistas semiestruturadas, estudadas conforme análise de conteúdo. **Resultados**: constataram-se dificuldades no entendimento da Classificação de Risco, questões estruturais e organizacionais e a falta de profissionais qualificados. Como potencialidades, atendimento de maneira ágil, buscando a mais correta identificação dos sinais apresentados pelo paciente e a realização do eletrocardiograma no tempo adequado. **Conclusão**: evidenciou-se que o enfermeiro percebe estar apto para tomar decisões rápidas e precisas por meio do conhecimento de protocolos assistenciais. Porém, verifica-se a interferência de processos como o subdimensionamento de pessoal e a demanda excessiva dos serviços de porta de entrada.
Descritores: Cardiopatias; Enfermagem; Emergências; Dor no Peito

Resumen: Objetivo: evaluar la percepción de los enfermeros ante los pacientes con dolor torácico en las puertas de entrada del Servicio de Urgencia y Emergencia de un hospital general. **Método:** estudio exploratorio, descriptivo, con enfoque cualitativo, realizado con 10 enfermeros en un gran hospital general en Rio Grande do Sul, en 2018. La recolección de datos ocurrió mediante entrevistas semiestructuradas, estudiadas según el análisis de contenido. **Resultados:** se encontraron dificultades para comprender la Clasificación de Riesgos, las cuestiones estructurales y organizacionales y la falta de profesionales calificados. Como potenciales, atención desarrollada rápidamente, buscando la identificación más correcta de los signos presentados por el paciente y la realización del electrocardiograma a tiempo. **Conclusión:** se evidenció que el enfermero percibe la capacidad de tomar decisiones rápidas y precisas mediante el conocimiento de protocolos asistenciales. Sin embargo, hay interferencia de procesos como el subdimensionamiento de personal y la excesiva demanda de servicios de admisión.

Descriptores: Cardiopatías; Enfermería; Emergencias; Dolor en el Pecho

Introduction

Emergency chest pain represents a great challenge and its diagnosis may be strengthened by the particularities of its location and associated symptoms. Commonly, It refers to pain or discomfort in the thoracic region of cardiac or non-cardiac origin. This research focuses on cardiac pain, which may be identified with typical characteristics. Its investigation must be careful, since some etiologies are potentially fatal if not readily recognized.[1]

When the pain has a cardiac focus, most patients in the assessment of severity reported severe pain, such as a feeling of tightness, burning, spiking or oppression with a focus on the precordial region. This discomfort may or may not have irradiation. When irradiated, it goes to places such as the mandible and upper limbs, associated with sweating, nausea and

syncope. Accordingly, any and all types of chest pain need prompt care for investigation and appropriate conduction.[2]

Acute myocardial infarction (AMI) is an ischemic heart disease, which causes pain and occurs secondarily to the acute interruption of the supply of blood and oxygen through the coronary arteries. The destruction of the heart muscle is, usually, determined by deposits of atheromatous plaques, embolus or thrombus, causing a permanent injury to the myocardial muscle. The dimension of this necrosis will depend on the size of the injured artery, the time of development of the obstruction and whether there was collateral circulation.[3-4]

The global epidemiological panorama has revealed a great increase in cardiovascular diseases (CVD) and, in turn, AMI is the pathology that appears most frequently, thereby deserving notoriety due to its high mortality rate. Estimates show that, for the year 2020, infarction is the cause of approximately 25 million deaths, with 19 million of them in low and middle income countries, linked to the Brazilian Unified Health System (SUS, as per its Portuguese acronym). This is attributed to treatment difficulties, either in reperfusion methods or in established therapeutic measures, or even by the lack of an Intensive Care Unit.[5-6]

In this context, chest pain is a cardiological emergency that leads the patient to seek health services. In the presence of this illness, an appropriate assessment must be carried out to conclude the possible diagnosis of AMI. Therefore, it is of utmost importance that pre-hospital care occurs quickly and efficiently, thereby resulting in the reduction of the time between the onset of the ischemic event and the necrosis until treatment.[7]

The nursing professional is responsible for carrying out the risk assessment in the emergency service, being responsible for assessing the patient, determining the needs for priority care and referring him/her to the treatment area according to his/her demands. Accordingly, the nurse is, generally, the professional of the emergency team to have the first

contact with the patient, thereby having the role of identifying the severity and referring him/her to the procedures that will be provided in a quick and effective way.

Accordingly, it is understood that a quick and effective care provides greater survival for patients, in addition to making it possible to outline behaviors and strategies for resolving changes appropriately. In the aforementioned context, the following question emerges: what is the role and importance of nursing in meeting the times agreed in the chest pain protocol?

The National Humanization Policy (PNH, as per its Portuguese acronym) proposes integrated actions that seek to modify the assistance of users in public hospitals in Brazil, enhancing the quality and efficiency of the institutional services.[8] This is possible through the implementation of the risk classification (RC), which is a dynamic system for identifying patients, paying attention to the needs and instant treatment, resulting from their health or suffering situation.[9]

The importance of carrying out this study is confirmed by the fact that, in the institution in question, there is a care protocol for chest pain and the instrument used as RC has insufficient information. This fragility justifies the interest of this research that intends to observe the knowledge and the foundation of the professional practice of nurses. To that end, the objective is to assess the perception of nurses in the face of patients with chest pain at the entrance doors of the Urgent and Emergency Service in a general hospital.

Method

This study is characterized by being a descriptive and exploratory research, with a qualitative approach, carried out in a large hospital in the north region of the State of Rio Grande do Sul (RS). Qualitative surveys aim to understand the meanings, reasons, aspirations, beliefs, values and subjective attitudes that can be observed in the speeches of individuals. The

descriptive ones try to describe, as accurately as possible, the occurrence of a fact, the relationship with others, characteristics and its nature.[10]

The survey followed the steps recommended by the Consolidated Criteria for Reporting Qualitative Studies (COREQ). [11] Data were collected from March to August 2018, in the three shifts, with all 10 nurses, totaling 10 interviews.

Data collection took place using a script with semi-structured questions, composed of open questions. Each interview was individual and happened on a pre-scheduled basis, in order to have an available and favorable moment. The script involved data on the main activity of the nursing professional at the entrance door.

The nurses who work at the entrance doors of the institution took part in the study according to the following eligibility criteria: being a permanent nurse at the institution; without maximum age restriction; and being in professional practice during the data collection period. The exclusion criterion was: nurses working in other units or substitute nurses.

Data collection took place through an interview with each participant. At first, the interviewees were characterized in relation to their professional category, training and length of service. In the second part of the interview, questions related to the theme were explored, such as knowledge about the identification of chest pain, the time taken to perform an electrocardiogram (ECG), the difficulties encountered at the entrance doors in applying RC and assessing the care protocols.

All speeches were recorded on a *smartphone*, transcribed in full and studied based on content analysis. [12] The average duration of each was 30 minutes. In order to ensure the anonymity of the interviewees, the excerpts from their speeches were identified by encoding the name of 10 anatomical parts of the heart and their Portuguese acronyms, namely: Right Coronary Artery (ACD), Circumflex Artery (ACX), Anterior Descending Artery (ADA), Aorta, Superior Vena Cava (VCS), Inferior Vena Cava (VCI), Tricuspid Valve (V. Tricúspide), Aortic

Valve (V. Aórtica), Pulmonary Valve (V. Pulmonar), Mitral Valve (V. Mitral). The choice of names is justified by the fact that they are directly correlated with the pathology in focus.

Data were organized and submitted to analytical procedures; subsequently, the analysis was carried out from the interview transcripts, using the content analysis method. [12] This is a set of techniques for analyzing communications in order to obtain, through systematic procedures and description objectives, the inference of knowledge related to the conditions of production/ reception of these messages.

Firstly, the pre-analysis was held with floating reading of the data extracted in the interviews, the construction of a table with the collected data and the choice of documents for the constitution of the data for the analytical procedures; following these steps, the analysis material was explored, thereby organizing the processed data in three categories that will be presented and discussed through the literature review.

It is worth underlining that the research in question was carried out after approval by the Research Ethics Committee of the University of Passo Fundo – UPF, under the opinion nº 2.572.484 and the CAAE protocol nº 83480218.1.0000.5342, on March 31st, 2018, and by the hospital institution. All participants signed the Free and Informed Consent Form after being informed about the objective of the research, the means of disclosing the results and the rights, such as confidentiality of the obtained data, anonymity, and willingness to take part in the study. Ethical and legal principles, secrecy and anonymity, according to Resolution nº 466/2012, of the National Health Council, [13] were complied with.

Results and discussion

From the analysis of the information, it is possible to assess the perception of nurses in the face of the patient with chest pain through three categories: **Understanding chest pain in its**

subjectivity; Nurses assessing chest pain based on care protocols; Nurses challenging the current reality of the urgent and emergency service before the care adversities.

This study was attended by 10 nurses, 06 females and 04 males, all permanent in their positions. The ages ranged between 22 and 56 years, with na average of 31.6 ± 10.26 years. The length of time in the profession ranged between 04 months and 38 years, with an average of 8.5 ± 11.31 years and time in the emergency sector between 04 months and 10 years, with an average of 2.3 ± 3.03 years. With regard to training, seven nurses have specialization, two are attending post-graduate studies in critical patients and one has no specialization.

Understanding chest pain in its subjectivity

Risk factors can be divided into two classes, modifiable and non-modifiable. The modifiable ones are related to life habits, which are systemic arterial hypertension, smoking, high blood glucose, dyslipidemia, alcohol consumption, stress, physical inactivity and obesity. Non-modifiable ones include gender, age and heredity. These are responsible for more than 40% of the global mortality.[14]

CVD are chronic evils and are characterized by a long latency period, leading patients to discover their severity only when symptoms are already exacerbated and the disease is in an advanced period. At that time, irreversible injuries may already exist, thereby generating wide-ranging complications. Due to these factors, these diseases gain space in the epidemiological profile of morbidity and mortality due to cardiopathies, i.e., heart diseases.[15]

The main symptom that determines the diagnostic investigation in the face of a possible ACS is the chest pain. The triggering factors are physical effort (most common) or emotion. The fact that the pain is not triggered by any of these two factors does not exclude the possibility that it has a cardiac origin. In view of the speech of ACX, it can be observed that chest pain becomes the main reported complaint:

> *Complaint of chest pain, or complaint of pain that goes from the chin to the belly button, sudden or late onset, in summary, but commonly sudden, strong intensity. When checking signals, low saturation, high altered heart rate, this is usually the case.* (ACX)

It is evident that the intense pain that has been described by the patient is decisive for the assessment, as well as in RC. The role of the nursing professional is crucial in this process, since the comprehension and understanding of the possible origin of pain puts the patient in a differentiated risk and time-dependent criterion. Here, the subjectivity of pain needs to be well conducted, since it imposes on the professional the need to assess and classify the patient with the objectivity that the case deserves.

According to the Brazilian Society of Cardiology (SBC, as per its Portuguese acronym), ACS has a classic description, which is manifested by means of pain, discomfort and burning, oppressive sensation located in the precordial or retrosternal region, and may have radiation to the left shoulder and/or arm, right arm, neck or jaw, frequently associated with diaphoresis, nausea, vomiting and/or dyspnoea.[16] The duration of symptoms may persist for a few minutes or even more than 30 minutes, whether it is AMI. Nevertheless, sometimes the person may present an atypical complaint, for example, malaise, indigestion, weakness or just sweating, without pain.[1,16]

In this context, it is a determining condition that the professional who works at the entrance doors of hospital services with RC has knowledge about the risk factors and comorbidities. Among them, advanced age, gender, *diabetes mellitus*, characteristic chest pain, as these elements affect the evolution of the disease and the outcome. Therefore, it is relevant to have the knowledge of the factors to perform RC in a reliable way:

> *When the patient arrives reporting pain as if it were an acute pain in the region on the left side, radiating to the arm, or if there is any predisposition, if it is a woman, diabetic or with advanced age.* (ADA)

In these cases, the identification of the severity in the classification must be quickly listed and, consequently, the specialized service must be immediately called. When an AMI is identified, the time is decisive for the success of the care and the effectiveness of the treatment, ranging from its diagnosis to the minimization of vitality risks. This element may increase the prognosis for patients who have such symptoms.

Careful assessment of nurses at the entrance doors to patients with chest pain is paramount, mainly in the contribution of a quick and effective diagnosis. It must be organized in a way that prioritizes the patient in question. The flow of this process needs to happen dynamically between the reception and RC. The classification includes the interview, the identification of signs/symptoms, the accomplishment of ECG and the collection of markers of myocardial necrosis. With this, the goal is always to enhance the 30-minute needle-holder time to improve the ability for resolving cases, thereby guaranteeing quality care.[17]

In this study, there are reports of nurses that highlight the importance of performing the screening in a fast way to identify AMI:

> *There are several signs, in the emergency, we identify through screening, vital signs, when the patient arrives with acute pain, burning pain, moves to the shoulder or neck, when he is sweating; or, through the interview itself, we already can identify and move on to care* (V. Tricúspide)

> *[...] everything depends on the screening, the quickness, the feeling of you getting the symptomatology; sometimes, he doesn't tell you he has precordial pain, he reports epigastric pain, you start associating, he's hypertensive, I think we reach a good result at the end of the segments of these cases [...]* (V. Mitral)

Contextualizing with the above, the health professional has the possibility to use the references made available by the institution such as the chest pain protocol and the SBC guidelines to facilitate the prioritization of care. Accordingly, RC is an important tool in this process, thereby being applied in urgent and emergency services. When the clinical need

exceeds the offer, the classification is used to ensure medical care with a suitable time, organization of the flow for patients, as well as early identification of acute cases.

Nurses assessing chest pain based on care protocols

Currently, in Brazil, the excessive demand for emergency care is a problem that entails the accumulation of tasks. A higher need for consultations contributes to the increase in service costs, produces an overload for health team professionals and, occasionally, ends up exceeding the capacity in which the services are organized.[1]

With a view to guaranteeing the quality of the care provided to users, objectively and quickly, the nurse holds RC. At the hospital in focus, the Manchester Triage System (MTS) is employed. In this, the classifier assesses the patient according to the clinical complaint, seeking to identify the signs and symptoms, because the number of people who seek the entrance door with compatible complaints, with the possibility of being due to ACS or other serious cardiovascular diseases, has been increasing.[18]

Therefore, RC needs to prioritize care for chest pain. The MTS method recommends that the maximum waiting time for the patient, between arrival at the emergency unit and the classification, does not exceed 10 minutes, as it is known that most cases of death from AMI occur in the first hours of the symptoms. The first hour of the event is responsible for 40 to 65% of deaths, which converges towards a percentage of 80% in the first 24 hours. [1,18]

The professionals stated that the RC procedure happens in a quick way, seeking the most correct identification of the signs presented by the patient. Therefore, the emergency care for cardiology is prioritized:

> *In my sector, I say up to 10 min, because the patient who arrives talking about chest pain, I immediately go to the classification and refer to the electro.* (ACD)

> [...] *in our servisse, within 10 minutes, he has to be cared for, he is classified in red or orange, but it is usually red, because he undergoes the screening, Manchester classifies him in red* [...] (ACX)

Besides the screening process, it is important to demonstrate to nurses the real needs of the application and accomplishment of the protocol simultaneously with their skills in clinical practice. This is because these professionals, in addition to assisting in the diagnosis, drive the therapeutic conduct, thereby reducing the time between the availability of drugs and the request of exams.

With regard to coronary events, the reduction in cases such as AMI occurs due to the use of guidelines with proven scientific evidence. Moreover, the use of protocols is essential to optimize the quality and effectiveness of care.

The accomplishment of essential procedures, such as ECG and the collection of cardiac markers, improves the resolutive potential and guarantees a quality care, prioritizing the reduction of the door-to-balloon time.[1-2]

Corroborating this need, SBC considers that it is essential that the diagnosis of AMI, through the 12-lead ECG, be performed, at most, within 10 minutes after the arrival of the patient. This is considered the golden time for the beginning of the appropriate therapy.[16] In patients with suggestive symptoms, the ST segment elevation has a specificity of 91% and a sensitivity of 46% for the diagnosis of AMI.[16,18]

When asked about the time to accomplish ECG, when the patient with chest pain was classified, the following responses were obtained:

> *The ideal is that it's less than 10 minutes, I think that, from the moment the nurse saw it, I can say that it's 10 minutes, I think the biggest waste of time is until the nurse sees this patient.* (ACD)

> *If the patient's pain is very intense, he's very sweating, and as soon as we realize it by his profile, it's immediate. Sometimes, it lasts for five minutes, five to ten minutes.* (Aorta)

From this study, it was possible to highlight and observe that ECG is in accordance with the recommended by SBC, mainly due to the fact that, in the studied service, this exam is part of a protocol. Accordingly, the autonomy of the request by the nurse is allowed.

In this context, care protocols emerge as care technology and instrument for the foundation of nursing practice. These elements aim to meet the needs of nurses, assisting in decision making during RC and guiding the path that must be taken with the patient in the light of good evidence-based practices.

Another important indicator is the serum markers of myocardial necrosis or biomarkers, because, with ECG, they are able to complement the first assessment performed on the patient who did not show an elevation of the ST segment. In patients with the ST segment, their relevance becomes less representational, since they are not essential for the diagnosis.

Traditionally, the CK-MB enzymes and I and T troponins are measured, with troponin being considered the gold standard marker for the diagnosis of AMI. Therefore, the exam must be performed on arrival, within 2 hours and 4 hours after it, needing to maintain the patient under continuous monitoring. At the location of the present research, CK-MB and troponin T tests are performed.[19]

Early treatment is a life-saving measure and must be started early. When reperfusion therapy is indicated in patients with ST segment elevation, the goal for coronary thrombolysis is 30 minutes and the door-to-balloon time must not exceed 90 minutes. In cases of severe infarction or onset of symptoms less than two hours, it is recommended a maximum of 60 minutes.[18,20]

Regarding the result time of the biomarkers, it is noted a lack of knowledge on the part of nurses regarding the recommended time. This is in the chest pain protocol implemented by the institution, which refers to 45 minutes, as observed in the speeches below:

> *Usually, when a heart attack is suspected, we already call the laboratory, they go down, they immediately collect, more one hour/two hours, so-so.* (ADA)

> *I have no idea. We'd have to get an indicator to know the times rightly.* (ACX)

The quick and appropriate care of patients who have ACS is one of the greatest concerns of those responsible for emergency services, as it interferes both in the reduction of risks and injuries and in the expenses for the hospital institution, insofar as inappropriate therapies and hospitalizations are avoided. The lack of mastery and reasoning of nurses at the entrance doors, regarding the approach of the patient, will cause a delay in appropriate referral, thereby generating a proportional increase in the risk of mortality.[1]

Nurses challenging the current reality of the urgent and emergency service before the care adversities

The beginning of care of the patient with ACS is triggered with the approach and reception strategies. This service is conducted by a team trained on reception and RC procedures that prioritize and recognize cases of chest pain.

Therefore, it is perceived that the nursing professional assumes an important role at the entrance doors, with regard to team coordination and management of care of patients with complex needs. This requires scientific knowledge, technological management capacity, critical analysis and agility.

In order to achieve the efficiency of the applicability of flowcharts and RC, it is important that the nurse has mastery of all the component parts of the care protocols. Added to this, one can cite the need to perform qualified listening and humanistic service, resulting in a complete service. The individual vulnerability and risk are considered in this context. Therefore, the diagnosis is made by professionals who take into account the history of who is being cared for, in such a way as to enable shared decisions.[21]

Urgent and emergency services have historically been operating as a gateway to SUS. Due to the high demand for care, this entrance door ends up receiving from serious patients to the simplest occurrences, which entails difficulties in the sizing of personnel. This excessive demand was observed in the reports of the following nurses:

> *The main difficulty is the accumulation of people for screening; then, until this information reaches the place of screening, sometimes, a good amount of time is lost, due to the fact that it's accumulating many consultations, not emergencies [...].* (V. Mitral)

> *A lot of clinical demand from patients who wouldn't need to be in the emergency sector, if the 60-80 services were reduced for patients who'd be emergency and urgency, a comprehensive, complete and rapid care could be held, different from meeting the absurd demand we face today.* (V. Pulmonar)

The changes in the epidemiological and demographic scenario due to the persistence of infectious and parasitic diseases, the prevalence of Chronic Non-Communicable Diseases (CNCD) associated with situations of violence and illnesses in exacerbation processes are generating a strong impact on urgent and emergency care services. In this way, the work processes, the quality of care and the effectiveness of actions are compromised because of the overcrowding and the overload at the entrance doors.[22]

Therefore, the nurse becomes the most qualified professional to perform the classificatory care, since this professional has a holistic view and develops generalist characteristics that allow the coordination of the nursing team. Accordingly, before its assessment, this worker is able to list the patients that will have priority and the ones that will be able to safely wait.[21]

In view of this RC, the interview and the reception of the patient are carried out. It seeks to identify the reason that took him/her to the health service, the identification of signs

and symptoms and the execution of ECG. Through these tools, the needs of the patients are raised with a view to establishing and driving conducts as reported by the professionals:

> *At the first moment, we assist here in the emergency sector, then now that we have the cardio staff, they come and evaluate here, if there is any identification that requires something more, patient goes to CPU; and, from there, they refer him/her in the case of the necessity to go until hemodynamics, they hold the procedures.* (VCI)

> *Acute ischemic alteration, hemodynamic, urgent catheterization, in order to undertake primary angioplasty, if an acute myocardial infarction is diagnosed, this is the first alteration. Let's say that the patient underwent an electro, he arrived without pain, with pain, but an atypical pain in the emergency room, and then he underwent the electro and there is a change, then the first conduct is to refer to the chest pain unit and call the cardiologista or, at least, the resident of the cardiology.* (ACD)

Nurses who work at hospital entrance doors need to know their possibilities and availability within each unit in order to be able to organize flows and drive care to specialized services, as in the case in question for the Chest Pain Unit (CPU). Accordingly, a chronological and viable order is allowed both for users and for the rest of the teams, in such a way as to encourage and improve the standardization of conducts and referrals.

It should be emphasized that, whether AMI has an interval between the beginning of the event ≤ 12 hours, it is possible to take two paths according to the institutional availability. As the first approach, primary angioplasty appears, a procedure in which coronary arteries are assessed with the purpose of obtaining an effective flow in the affected coronary artery, with a lower rate of late complications, decreased mortality in specific conditions, such as in the case of cardiogenic shock, and a shorter period of hospital stay.[7]

The second approach refers to the application of fibrinolytics. This occurs when there is no hemodynamics in the hospital. However, for its administration, it is necessary to pay attention to the contraindications, such as whether the patient has had an ischemic stroke <3

months or is suspected of acute aortic dissection, active internal bleeding, pregnancy, among others. Therefore, it must not be applied in these cases. Whether the contraindications do not fit and fibrinolytic drugs are applied, the door-to-balloon times <90 minutes must be observed, with a view to ensuring the safety and the better effectiveness of the chosen therapies.[7]

The chest pain protocol drives care in such a way that it predicts behaviors, rules and routines for all professionals to use it as a means of providing information and guiding actions, thereby facilitating the understanding of what should be assessed. In the institution where this research took place, the prevalent choice approach is the hemodynamic intervention.

When asked about the difficulties related to RC at the entrance doors, professionals identified only the core idea of structural and organizational difficulties:

> *It'd require organizational restructuring, not only equipment, equipment if you have, but the issue of nursing and the medical issue, you'd need to undergo a makeover, which, if it could improve some things, technology would help a lot, but if you have technology and there is no professional who can master it, or professionals who understand some needs you need, it doesn't works.* (V. Pulmonar)

> *I think that one of the main causes is the lack of nurses at the entrance doors, nurses only for risk classification in the emergency [...]. The first contact at the hospital is held by the nurse, it doesn't matter, if you don't have the nurse available just for that, I think it's our biggest barrier.* (ACD)

From the findings related to the difficulties evidenced in the RC sector, it is observed that the nursing professional, even being qualified for the job, finds adversities in the current scenario. Among these, the reduced number of professionals, the possible lack of material resources, the high flow of patients and the failures in service management.[23]

As for the undersizing of personnel, especially with regard to the lack of an exclusive nurse to perform RC at the entrance doors, it is understood that this fact generates overload and

stress. Accordingly, this is capable of directly reflecting on a possible inappropriate assessment, resulting in an unreliable RC.

As a limitation, it should be considered the fact that the survey was carried out in a single center, which can make it difficult to generalize the results to other populations and regions. However, the results obtained here envisage the need for further investigations on this theme, since there are few nursing studies on the perception of the work of the nursing professional at the entrance doors, mainly when referring to acute situations in emergency.

Final considerations

The perception of nurses in the face of patients with chest pain involves understanding that, in the case of RC at the entrance doors, the skills of these professionals are systematically being confronted with a care reality based on complex current protocols that require knowledge and appropriate sizing of personnel. From the viewpoint of the nurse, this presupposes that this professional immediately recognizes the signs and symptoms of an AMI and uses a pre-established care flowchart, thereby replacing exclusive screening with an effective and quality classification model. In this sense, the objective is to obtain a high diagnostic accuracy in a time-dependent pathology.

Moreover, it is clear to the nurse that the accumulation of responsibility for the managerial demand coupled with the care-related task is harmful. It also develops actions that involve in-service education and research. Based on the findings of this research, it is perceived that the prioritization of RC actions at the entrance doors may be being relegated to a secondary level, which was perceived as true by the surveyed nurses.

The results contribute to the care practice, as they serve as an alert for managers to provide opportunities to discuss and rethink the organization of work in the emergency sector.

This was evidenced in the pertinent literature and described in the present study, in view of the speeches of its participants. Some of them were divergent.

Seen in these terms, this study will contribute to nursing by proposing a reflection on the situation experienced in this context, knowing the Brazilian reality regarding the mortality from AMI and the difficulties faced at the hospital entrance doors. Nonetheless, the present investigation not only revealed some critical nodes of the process, but also glimpsed the need to comply with health education processes with a focus on patient safety, as well as support for the suitable sizing of professionals.

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