

The actions of the nurse in front of the patient with acute myocardial infarction in urgency and emergency

El actuar de la enfermera frente al paciente con infarto agudo de miocardio en urgencia y emergencia

As ações do enfermeiro frente ao paciente com infarto agudo do miocárdio na urgência e emergência

Cladis Loren Kiefer Moraes^{1*}

ORCID: 0000-0003-4579-3588

Maycon Richard Gomes da Silva¹

ORCID: 0000-0001-7985-8154

Meyreane de Lima Borges²

ORCID: 0000-0003-2113-5628

Sthéfany Martins Souza de Oliveira³

ORCID: 0000-0003-0875-132X

Milena Maria Picolin¹

ORCID: 0000-0002-3371-7396

Francieli Tozatti Ficagna⁴

ORCID: 0000-0003-2902-5992

¹Faculdades Associadas de Santa Catarina. Santa Catarina, Brazil.

²Hospital Baía Sul. Santa Catarina, Brazil.

³Prefeitura Municipal da Palhoça. Santa Catarina, Brazil.

⁴Unidade de Pronto Atendimento de Biguaçu. Santa Catarina, Brazil.

How to cite this article:

Moraes CLK, Silva MRG, Borges ML, Oliveira SMS, Picolin MM, Ficagna FT.

The actions of the nurse in front of the patient with acute myocardial infarction in urgency and emergency.

Glob Acad Nurs. 2023;4(1):e341.

<https://dx.doi.org/10.5935/2675-5602.20200341>

*Corresponding author:

cladismoraes@uol.com.br

Submission: 08-26-2022

Approval: 09-30-2022

Abstract

The aim was to identify the actions of the nurse in front of the patient with acute myocardial infarction in urgency and emergency. This is an integrative review, using the bases of the Virtual Health Library, BDNF, LILACS, MedLine and SciELO. The research was carried out in May 2021 with a time frame from 2015 to 2020. After reading the articles and adopting the selection criteria, five articles were included and three categories were listed: The importance of risk classification in the care provided to patients with AMI, the difficulties of the nursing professional in the care of the patient with AMI and the favorable aspects in the care of the patient with acute myocardial infarction. It was found that nursing positively perceives the use of risk classification, protocols and guidelines as a way to make care safe and agile. It also identifies administrative difficulties to be overcome. On the other hand, they show that offering comfort measures are positive actions in the quality of care for patients with acute myocardial infarction.

Descriptors: Nursing Care; Nurse; Acute Myocardial Infarction; Emergency Hospital Service; Nursing Assistance.

Resumen

El objetivo fue identificar las acciones de la enfermera frente al paciente con infarto agudo de miocardio en urgencia y emergencia. Esta es una revisión integradora, utilizando las bases de la Biblioteca Virtual en Salud, BDNF, LILACS, MedLine y SciELO. La investigación se realizó en mayo de 2021 con un marco temporal de 2015 a 2020. Después de la lectura de los artículos y la adopción de los criterios de selección, se incluyeron cinco artículos y se enumeraron tres categorías: La importancia de la clasificación de riesgo en la atención brindada a pacientes con IAM, las dificultades del profesional de enfermería en el cuidado del paciente con IAM y los aspectos favorables en el cuidado del paciente con infarto agudo de miocardio. Se constató que la enfermería percibe positivamente el uso de la clasificación de riesgo, protocolos y guías como forma de hacer el cuidado seguro y ágil. También identifica las dificultades administrativas a superar. Por otro lado, muestran que ofrecer medidas de confort son acciones positivas en la calidad de la atención a los pacientes con infarto agudo de miocardio.

Descriptores: Cuidado de Enfermería; Enfermero; Infarto Agudo del Miocardio; Servicio de Urgencias Hospitalarias; Asistencia de Enfermería.

Resumo

Objetivou-se identificar as ações do enfermeiro frente ao paciente com infarto agudo do miocárdio na urgência e emergência. Trata-se de uma revisão integrativa, utilizando as bases da Biblioteca Virtual em Saúde, BDNF, LILACS, MedLine e na SciELO. A pesquisa foi realizada em maio de 2021 com recorte temporal de 2015 a 2020. Após a leitura dos artigos e adotar os critérios de seleção foram incluídos cinco artigos e elencadas três categorias: A importância da classificação de risco na assistência prestada ao paciente com IAM, as dificuldades do profissional de enfermagem nos cuidados ao paciente com IAM e os aspectos favoráveis na assistência ao paciente com infarto agudo do miocárdio. Constatou-se que a enfermagem percebe de forma positiva o uso da classificação de risco, protocolos e diretrizes como forma de tornar a assistência segura e ágil. Da mesma forma ainda identifica dificuldades administrativas a serem superadas. Por outro lado, mostram que oferecer medidas de conforto são ações positivas na qualidade do cuidado ao paciente com infarto agudo do miocárdio.

Descritores: Cuidados de Enfermagem; Enfermeiro; Infarto Agudo do Miocárdio; Serviço Hospitalar de Emergência; Assistência em Enfermagem.



on the subject in a systematic way, pointing out gaps in knowledge that need to be filled with the performance of new studies⁵. Following the literature proposals, this study will follow the steps of the integrative literature review described below⁶.

Introduction

Acute Myocardial Infarction (AMI) is the leading cause of death in the country, according to the DATASUS database, which registers around 100,000 annual deaths due to the disease. Its prevalence and number of deaths are exacerbated in the first hour of symptoms evolution, causing the death rate to reach 50%, due to the lack of information about the symptoms and delay in seeking help, making it even more difficult their prognosis in emergencies. Doing an analysis focusing only on the state of Santa Catarina, the number of deaths reached 2,666 in 2019¹.

The factors that predispose AMI are associated with age, high cholesterol, diabetes, smoking, obesity and hereditary factors, and may also be aggravated by a sedentary lifestyle, psychosocial factors, central obesity, plurimetabolic syndrome and alcohol intake².

According to the Ministry of Health, the main cause of AMI is atherosclerosis, a disease in which fatty plaques accumulate inside the coronary arteries, leading to obstruction. In most cases, AMI occurs when one of these plaques ruptures, which leads to the formation of a clot and interruption of blood flow, which can occur in different parts of the heart, depending on which artery was obstructed³.

The most frequent signs and symptoms of AMI are: persistent chest pain, of sudden onset and strong intensity, located on the sternal region with irradiation to the left arm and mandible. This pain may be accompanied by sweating, nausea, vomiting, pallor, and syncope may occur².

Nursing ends up facing the challenge of diagnosis when chest pain is a symptom that can be caused by different types of diseases, as it is a common symptom it generates a delay in clinical diagnosis, making it difficult to care for the patient, who may be at risk for a AMI frame².

The actions carried out by the nurse in the emergency are of paramount importance, he is the professional responsible for the first contact with the client, performing data collection in a systematic way, thus being of paramount importance the presence of this professional, as he is the one who speeds up the diagnostic procedures and therapeutics. Likewise, the nurse's knowledge is of great importance in the face of AMI, where the rapid identification of the disease, as well as the signs in the first consultation, corroborate for a better prognosis for the patient⁴.

Given this context and, mainly, due to the severity of AMI and its complexity in urgent and emergency care, there is a need to know the role of nurses, identify their actions and conduct, in order to promote better knowledge about the performance of this professional in the urgent and cardiac emergency services, questioning: What are the actions of the nurse in front of the patient with acute myocardial infarction in urgency and emergency?

Methodology

This is an integrative review, which concerns a broad methodological approach, referring to the reviews, allowing the inclusion of experimental and non-experimental studies for a complete understanding of the analyzed subject. Being a research method that performs the search, critical evaluation and synthesis of published studies

STEP 1. Identification of the theme or research question

Aiming to expand our knowledge about the actions of the nurse in front of the patient with suspected AMI, the following question was elaborated: what are the actions of the nurse in front of the patient with AMI in the hospital unit?

STEP 2. Establishment of criteria for inclusion and exclusion of studies/sampling or literature search

After choosing the theme and formulating the research question, we started searching the databases to identify the studies that were included in the review. The databases chosen for collection were the Scientific Electronic Library Online (SciELO), and from the Virtual Health Library (BVS), the bases of the Medical Literature Analysis and Retrieval System Online (MedLine), Latin American Literature and the Caribbean in Health Sciences (LILACS) and Nursing Database (BDENF).

Inclusion criteria were: freely accessible original articles, available online and in full in Portuguese and English, published in the last 5 years (2015-2020) that correspond to the research question. Exclusion criteria were: theses, dissertations, letters to the editor, duplicate articles in more than one database and reviews.

The investigation was carried out by crossing the following Health Sciences Descriptors (DeCS): "Nursing Care"; "Nurse"; "Acute myocardial infarction"; "Hospital Emergency Service"; "Nursing care. To compose the search strategy, we used the Boolean operator "and": "Nurse and acute myocardial infarction", "Acute myocardial infarction and Nursing care", "Emergency hospital service and Nurse and acute myocardial infarction". myocardium", "Nursing Care" and "Acute Myocardial Infarction" and "Nursing" and "Emergency", "Acute Myocardial Infarction" and "Nursing Care" and "Hospital Emergency Service".

STEP 3. Categorization of studies

For this stage, a table instrument in Microsoft Excel was used, in which the information about the selected articles was categorized, addressing title, authors, year of publication and journal, theme, objectives, methodology, results and conclusion.

STEP 4. Analysis

Thematic analysis was carried out to identify, analyze, interpret and report patterns (themes) from qualitative data where the studies to be included in the review were evaluated according to the themes. This step will be presented in the results chapter.

STEP 5. Interpretation of results

A critical evaluation of the included studies was carried out, comparing them with theoretical knowledge,

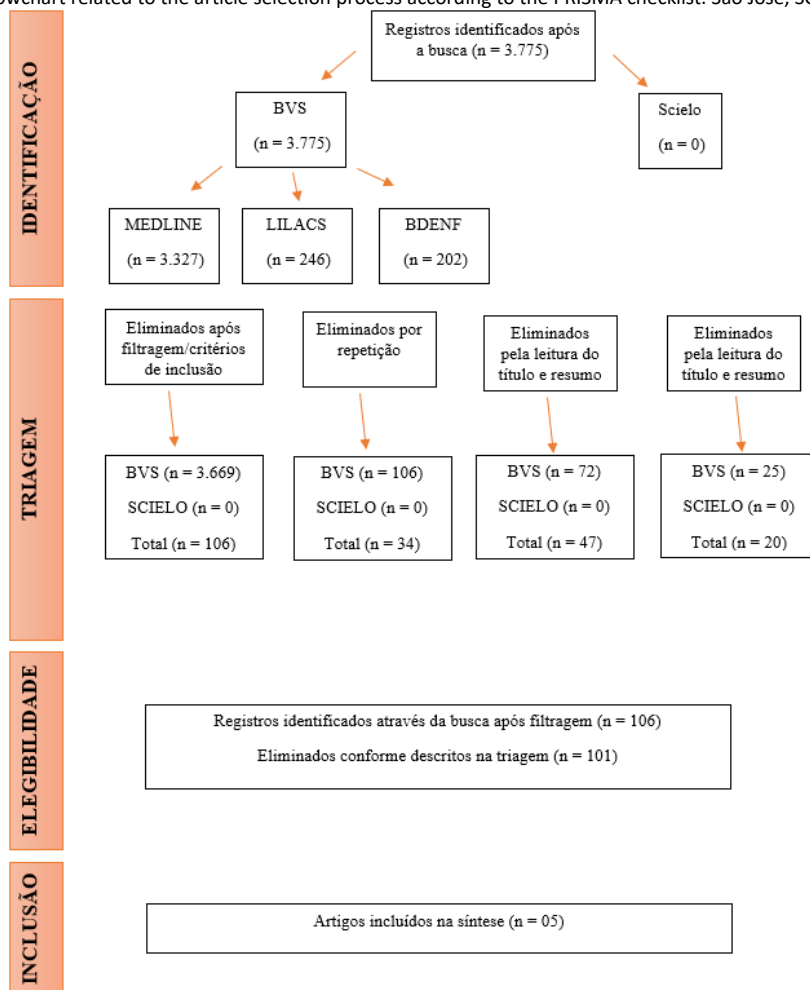


STEP 6. Knowledge synthesis

Discussion of the articles found with the literature presenting the existing knowledge on the subject.

identifying conclusions and implications resulting from the integrative review. This step will be presented in the discussion chapter.

Figure 1. Flowchart related to the article selection process according to the PRISMA checklist. São José, SC, Brazil, 2021



Results

The research was carried out in May 2021. When starting the search in the Scielo base, no article that met the research demand was found. After searching the virtual health library, 3,775 articles were found in the VHL database, 202 in BDENF, 246 in LILACS and 3,327 in MedLine. Applied inclusion and exclusion criteria resulted in 106 total, of these 53 articles in BDENF, 44 in LILACS base and nine in MedLine. By reading the title and abstract, a total of 25 articles were obtained and following a careful reading of the selected articles to verify which ones met the research theme, listing the actions of the nurse and whether the care was performed within the scope of the hospital service, five articles were defined.

As for the year of publication, the files varied between 2015 and 2020, resulting in different years of publication, but bringing two (2) articles from the year 2020, the chosen language was Portuguese. As for the types of study, 40% (2) are qualitative, 20% (1) descriptive cross-sectional study, 20% (1) research-care and 20% (1) cross-sectional and analytical study. Continuing the research, the discussion of the main results of the articles analyzed and discussed in the light of the literature will be presented. For that purpose, three categories were listed according to Chart 2. The main results of the analyzed articles are presented below.

Chart 1. List of the final sample of articles by article code, title, author(s), year of publication/journal and objectives. São José, SC, Brazil, 2021

ID	Title	Authors	Publication Year/ Journal	Objectives	Results
A1	Percepção dos enfermeiros de emergência na utilização de um protocolo para	Vieira AC, Bertoncello KCG, Girondi JBR, Nascimento ERP,	2016/ Texto Contexto Enfermagem	Identify nurses' perception of a hospital emergency service when using a specific nursing	The results presented reflect the nurses' perception when using the HIAE chest pain protocol, during the classification of the 67 cases of chest pain in this study. Consequently, the following categories



	avaliação da dor torácica	Hammerschmidt KSA, Zeferinho MT ⁶		protocol to relieve chest pain.	emerged: Using a new protocol, Adapting to the new instrument and Comparing the instruments.
A2	Habilidades dos enfermeiros no uso terapêutico do uso da alteplase em unidade de pronto atendimento	Ferreira LS, Oliveira JC, Olivo VC ⁷	2020/ Revista Nursing	Evaluate the skills of nurses in the therapeutic use of alteplase.	The results obtained in the research are in line with the literature, demonstrating that nurses have skills for handling and applicability of the medicine, having as a guiding principle the elaboration of care protocols for more effective nursing care to the patient.
A3	Cuidados de enfermagem para conforto físico de mulheres com infarto agudo do miocárdio: uma pesquisa-cuidado	Ponte KMA, Silva LF ⁸	2017/ Revista de Enfermagem da UFPI	Describe clinical nursing care for the physical comfort of women with acute infarction.	Comfort measures are relevant for restoring the patient's health, as it is through these that the nurse and his team promote interaction, effective bonding, trust, hope, consolation, support, encouragement and quality care. It is important that intensive care unit professionals have technical training and emotional preparation with a view to promoting the comfort that demands the interdisciplinarity of the action, an integrated teamwork based on a humanistic philosophy in which the nurse has an important role to play.
A4	Percepção do enfermeiro ao paciente com suspeita de infarto agudo do miocárdio	Mathias ALR, Rocha ELC, Silva LA, Fedalto CZP, Silva AP ⁹	2020/ Revista Científica de Enfermagem	Identify the nurse's perception of care for patients with suspected acute myocardial infarction.	The safety of nurses' conduct in caring for patients with chest pain is corroborated with training, updates, autonomy in following protocols and the guarantee of referral and counter-referral guaranteed by the SUS. However, these professionals encountered barriers, mainly regarding performing tests at certain times in the UPA. This can compromise the patient transfer process.
A5	Avaliação da qualidade do atendimento ao paciente com síndrome coronariana aguda no serviço de emergência	Santos FG, Campanharo CRV, Lopes MCB, Okuno MFP, Batista REA ¹⁰	2015/ Revista Eletrônica de Enfermagem	Evaluate the quality indicators in the care of patients with suspected acute coronary syndrome and associate them with discharge, death and length of hospital stay.	Time is critical to achieving better outcomes for patients with ACS. Thus, the nurse who performs the AACR, being the first professional to have contact with these patients in the SE, must prioritize care based on institutional protocols and recommended guidelines.

Chart 2. List categories and articles discussed. São José, SC, Brazil, 2021

Category	Articles
1. The importance of risk classification in patient care	A5, A2, A4
2. Difficulties of the nursing professional in the care of patients with AMI	A1, A4, A5
3. Favorable aspects in the care of patients with AMI	A1, A2, A3, A4

Discussion

The importance of risk classification in the care provided to patients with AMI

It is understood that in this first category there is a similarity between all selected articles. Currently, health services have a high demand for public service, as a consequence, there is an increase in waiting time. In urgent and emergency services, it would not be different, but care is recommended in line with the severity. If possible, reflect on the importance of welcoming and risk classification carried out privately by the nurse, in accordance with the Brazilian resolution of the Federal Nursing Council (COFEN) No. 423/2012⁷⁻¹¹.

If it is necessary to carry out an emergency procedure, exercising nursing care throughout the hospitalization period, the nurse, in most cases, is the first to have contact with the patient who has a heart attack, being one of the professionals who has the ability to distinguish the signs and symptoms of the pathology, contributing to the early identification of the infarction and being able to refer the situation to a positive prognosis^{12,13}.

Reception with risk classification emerged with the aim of better coordinating the order of care, thus excluding the order of arrival and including the classification of severity or associated risk factors that predispose to a possible risk that threatens life. The person responsible for this reception



comes to be the nursing professional who needs to be equipped with an instrument that provides a basis for conducting the case, assessing its severity or potential for a negative prognosis, in this way, the care protocols systematize the professional's action, being fundamental for the effective risk classification and assessment of the patient's vulnerability⁸.

The onset of pain is expressed through suffocation, retrosternal pressure, and may radiate to the arms, epigastric region, back and cervical region. Precordial pain, being recognized through Levine's indicator. Therefore, knowledge of this sign is indispensable for the professional nurse in risk classification, which allows an agile service¹⁴.

The care time for a patient with suspected AMI is extremely important, based on the information collected from the nurses interviewed in a survey that shows that it is essential that care be provided within 10 minutes of its occurrence, since the patient with AMI needs to receive clinical support with thrombolytic therapy or percutaneous angioplasty with the aim of reducing permanent damage to the myocardial muscle⁸.

The risk classification starts from an advent of identifying the accentuated situations in a way that will imply a threat to life, thus aiming at a satisfactory service in a minimum time, with the purpose of minimizing major setbacks and, consequently, increasing the chances of survival of the sick¹⁵.

During the risk classification, from the moment they recognize the typical signs and symptoms of acute myocardial infarction, they perform the first electrocardiogram in the red room and call the medical team, emphasizing that it occurs according to the protocol of each institution and guidelines, focusing on in the door-ECG time, since the time recommended by the American Heart Association (AHA) is 10 minutes or less. In this way, the nurse, when interpreting the electrocardiogram and identifying the alteration compatible with the infarction, performs the necessary actions such as forwarding the red room, performing a venous access, always following the established protocol^{11,13}.

The nurse's ability to recognize and identify signs of suspected AMI in the patient's first contact with the nurse can directly influence the interventions in search of the diagnosis of this condition. Clinical practice revolves around the concept of the initial complaint, which is chest pain, which becomes a motivator for the patient to seek the emergency service due to the persistence of pain in this region. Thus, it is important to emphasize that nurses are supported for care procedures in patients who are being investigated for AMI, ranging from risk classification to administering medication, through the protocols of the Manchester System Risk Classification, Chest Pain and other protocols care and management instituted by health services¹⁰.

Difficulties of the nursing professional in the care of patients with AMI

Currently, in Brazil, there is a growing demand for patients seeking emergency services, thus causing work

overload for the multidisciplinary team. However, the ever-increasing demand also expects nursing care adapted to new health technologies that must be adjusted daily to the structure of each service in order to improve care. However, the expected benefit from these resources for patient health care has been hampered by the limitation of studies in Brazil aimed at this technology, especially by nursing. To ensure a correct assessment and management of chest pain, it is essential to apply a protocol and continuing education to better support the nurse's performance⁷.

Continuing education is indispensable for a better foundation of the nurse's performance concomitant with protocols and guidelines. The lack of knowledge, training, updates, security and autonomy are difficulties that imply in the agility of care for patients with AMI⁷.

The general training of nurses does not give them security and precision when diagnosing AMI, for this reason specific improvement working in this area is extremely important and relevant, since cardiology itself is always in constant change. This professional needs to be trained and updated in relation to technologies and knowledge on the subject, in order to be able to transfer safety and accuracy for the benefit of the patient. In this way, nurses need up-to-date and specific knowledge, despite their general education, about heart diseases in both adults and children in order to provide safe, risk-free care^{16,17}.

Nurses share about the importance of following the protocols in patients with suspected AMI, however, there are some difficulties in carrying out tests at certain times in the UPAs, for example, compromising the process of transferring the patient to the continuity of care in the hospital environment. Some nurses mention that it is necessary to understand the importance of the referral and counter-referral of a patient who needs to be referred to the urgent and emergency units¹⁰.

In the urgency and emergency service, together with the reception, complexities are exposed, for example, high demand from the community, scarcity of funds, precarious infrastructure, lack of awareness of the population, insufficient number of qualified employees, deficiency of hospital machinery and, in addition, inaccuracies in activity management¹⁸.

In emergencies, it is possible to perceive that overcrowding is still an obstacle for the unified health system, for this reason the relevance of referral and counter-referral. Due to this hierarchy, the patient affected by AMI can be referred to high complexity, after stabilization, it is forwarded to the counter-reference, easing the overcrowding and favoring the continuity of the treatment. Continuing education is indispensable for a better foundation of the nurse's performance concomitant with protocols and guidelines within this flow¹¹.

Despite advances in the treatment of patients with suspected AMI, non-adherence to care protocols and guidelines is still high, which directly impacts mortality. The reduction in mortality due to AMI could be reduced if there were additional efforts to improve approaches from the performance of initial tests to invasive procedures, especially when AMI is confirmed^{10,13}.



Favorable aspects in the care of patients with AMI

There are several types of care for patients affected by AMI that are the responsibility of nurses, including nursing care implemented for physical comfort, handling equipment, hygiene, medication administration and other preparation procedures, as well as continuous monitoring of heart rate, blood pressure and peripheral oxygenation, in addition to psychological support for the patient. The authors also emphasize the importance of technical training for nurses, as well as emotional preparation, listing an interdisciplinary work in which nurses have an important role to play through a humanistic vision⁹.

The nurse's attribution is to understand that convenience is something expected by those who need treatment. To match the role of the nurse and the perspective of the patient. Thus, comfort comes from a vast theoretical and practical knowledge¹⁹.

Nurses, through knowledge and a rational approach, are able to determine contributions to adequate and early treatment, with the aim of minimizing complications. The use of prescribed medication acts as a relief for chest pain, however other methods can be added, such as a simple relaxation therapy or dialogue, as a distraction tool, addressing other subjects of interest to patients, as well as guidance regarding the illness process and necessary exams, always seeking advice so that they remain calm^{8,9}.

The nurse comes from a perception of technical-scientific care, thus having a professional and patient connection, with the aim of achieving a goal of well-being. The contribution of the nurse's clinical care is essential, in order to promote comfort for the patient in the face of AMI. Actions aimed at hygiene, positioning of the patient in bed, maintenance of body integrity, sleep and rest are extremely important, as they must be considered any and all manifestations of the need for comfort presented by the patient, being the pain the most frequent manifestation, affecting both the physical and emotional aspects, interfering with eating, walking and living comfortably. Offering comfort is part of nursing care, as an immediate and holistic experience, reinforced by satisfying the needs of relief present in four contexts of human experience: physical, psycho-spiritual, socio-cultural and environmental^{8,20}.

The nurse has autonomy with regard to patient care. It is fundamental that an agile and sufficient skill is

Conclusion

This study made it possible to identify the actions of nurses towards patients with acute myocardial infarction. The actions start at the emergency entrance door through the risk classification, followed by the performance and interpretation of the electrocardiogram and referral to the red room for protocol interventions. Pointing out that the nurse's knowledge must be substantial and with continuous updates.

In view of the topics addressed, we can observe that nursing positively perceives the use of risk classification, protocols and guidelines as a way to make care safe and agile. Regarding care for patients affected by AMI, it was shown that there are several protocols and guidelines for care, but there is no real adherence by nursing professionals, since the quality of the care process for patients with AMI is still part of an action of the nurse and their specializations.

As much as most nurses agree with the use of protocols and understand their importance, there are difficulties, both the absence of protocols, and the existence and non-adherence, in a way impacting mortality.

The scarcity of knowledge, training, updates, security and autonomy are difficulties that imply in the agility of care for patients with AMI. Despite the difficulties encountered, nursing professionals are aware that good care and continuing education are essential factors for a better prognosis for patients affected by the pathology, as well as the development of increasingly targeted protocols focusing on the signs and symptoms presented. by the patient.

In view of this, the proposed objective was achieved, identifying actions and behaviors of the nurse in front of the patient with AMI in the urgency and emergency units, promoting an expanded knowledge about the role of the nurse in its various care scenarios. It is still possible to state that there is a scarce number of articles in the databases used, which may refer to the minimum publications of the professional nurse on the due topic addressed or the need to expand the consultation bases.

References

1. DATASUS (BR). Informações de Saúde, Epidemiológicas e Morbidades: banco de dados [Internet]. 2021 [acesso em 10 nov 2020]. Disponível em: <http://www2.datasus.gov.br/DATASUS/index.php?area=0203>
2. Meneses LSL, Caxias AM, Franco AM, Dantas ASF, Oliveira AKC, Leal EG, Lisboa JHV et al. Assistência De Enfermagem Ao Paciente Com Infarto Agudo Do Miocárdio Em Uma Urgência E Emergência: relato de experiência. *Brazilian Journal of Development*. 2020;6(9):69116-69121. <http://dx.doi.org/10.34117/bjdv6n9-381>
3. Ministério da Saúde (BR). Banco de dados do Sistema Único de Saúde-DATASUS [Internet]. 2021 [acesso em 05 mar 2021] Disponível em: <http://tabnet.datasus.gov.br/cgi/tabcgi.exe?sim/cnv/obt10sc.def>



4. Silva WP, Barbosa IEB, Mota BS, Melo FS, Rodrigues AJPS, Verdi LHM, Silva MAP, Santos PJ, Sá LCN, Neves DCM. Assistência de enfermagem ao paciente com infarto agudo do miocárdio. RSD [Internet]. 2022 [citado em 23 de agosto de 2022];11(11):e19111133072. Disponível em: <https://rsdjournal.org/index.php/rsd/article/view/33072>
5. Souza MT, Silva MD, Carvalho R. Revisão integrativa: o que é e como fazer. Journal Einstein [Internet]. 2010 [acesso em 09 nov 2020];8(1):102-106. Disponível em: https://www.scielo.br/pdf/eins/v8n1/pt_1679-4508-eins-8-1-0102
6. Mendes KDS, Silveira RCCP, Galvão CM. Revisão Integrativa: Método De Pesquisa Para A Incorporação De Evidências Na Saúde E Na Enfermagem. Texto Contexto Enferm [Internet]. 2008 [acesso em 13 nov 2020];17(4):758-764. Disponível em: <https://www.scielo.br/pdf/tce/v17n4/18.pdf>
7. Vieira AC, Bertonecello KCG, Girondi JBR, Nascimento ERP, Hammerschmidt KSA, Zeferinho MT. Percepção dos enfermeiros de emergência na utilização de um protocolo para avaliação da dor torácica. Texto & Contexto – Enfermagem [Internet]. 2016 [acesso em 19 mai 2021];25(1):1-7. Disponível em: <https://pesquisa.bvsalud.org/portal/resource/pt/biblio-962795>
8. Ferreira LS, Oliveira JC, Olivio VC. Habilidades dos enfermeiros no uso terapêutico do alteplase em unidade de pronto atendimento. Revista Nursing [Internet]. 2020 [acesso em 19 mai 2021];23(269):4751-4757. Disponível em: <https://pesquisa.bvsalud.org/portal/resource/pt/biblio-1145411>
9. Ponte KMA, Silva LF. Cuidados de enfermagem para conforto físico de mulheres com infarto agudo do miocárdio: uma pesquisa-cuidado. Rev Enferm UFPI [Internet]. 2017 [acesso em 19 mai 2021];4(6):40-46. Disponível em: <https://pesquisa.bvsalud.org/portal/resource/pt/biblio-1033957>
10. Mathias ALR, Rocha EFC, Silva LA, Fedalto CZP, Silva AP. Percepção do enfermeiro frente ao paciente com suspeita de infarto agudo do miocárdio. Revista Recien. 2020;10(30):38-44. <http://dx.doi.org/10.24276/rrecien2020.10.30.38-44>
11. Santos FG, Campanharo CRV, Lopes MCBT, Okuno MFP, Batista REA. Avaliação da qualidade do atendimento ao paciente com síndrome coronariana aguda no serviço de emergência. Revista Eletrônica de Enfermagem. 2015;17(4):1-9. <http://dx.doi.org/10.5216/ree.v17i4.32692>
12. Paixão WHP, Barbosa KCV, Santos KCFs, Almeida ACL, Pereira AS, Bezerra CCC, Offredi BS. Saberes e práticas de enfermeiros na realização e interpretação do eletrocardiograma. Glob Acad Nurs. 2021;2(3):e165. <https://doi.org/10.5935/2675-5602.20200165>
13. Santos LP, Rodrigues NAM, Bezerra ALD, Sousa MNA, Feitosa ANA, Assis EV. Parada Cardiorrespiratória: Principais Desafios Vivenciados Pela Enfermagem No Serviço De Urgência E Emergência. Revista Interdisciplinar em Saúde [Internet]. 2016 [acesso em 09 nov 2020];9(3):35-53. Disponível em: https://www.interdisciplinaremsaude.com.br/Volume_9/Trabalho_03.pdf
14. Ferreira S, Pasa J, Lysakowski S. Atuação Do Enfermeiro No Atendimento Ao Paciente Com Infarto Agudo Do Miocárdio. Revista Espaço Ciência & Saúde, Cruz Alta. 2020;7(2):35-41. <http://dx.doi.org/10.33053/recs.v7i2.240>
15. Pádua DR. Avaliação Dos atendimentos A Pessoas Com Síndrome Coronariana Aguda Em Um Pronto Socorro Público Sem Acesso A Hemodinâmica. 2018. 85 f. Dissertação (Mestrado) - Curso de Enfermagem, Universidade Federal de Minas Geras Escola de Enfermagem, Belo Horizonte, 2018.
16. Koerich C, Erdmann AL. Gerenciando práticas educativas para o cuidado de enfermagem qualificado em cardiologia. Rev Bras Enferm. 2016;69(5):872-880. <http://dx.doi.org/10.1590/0034-7167-2015-0032>
17. Vianna TA, Rodrigues NM, Ferreira BCA, Nogueira LRD, Lima FN, Chícaro SCR, Duarte ACS, Silva KCF, Silva MRB, Cunha AL. Ações de enfermagem na cardiopatia congênita. Glob Acad Nurs. 2021;2(Spe.3):e168. <https://doi.org/10.5935/2675-5602.20200168>
18. Lima VMR, Silva MMF, Carvalho IS, Carneiro C, Morais APP, Torres GMC, Pinto AGA. The use of assistance flow by nurses to the patient with chest pain: facilities and difficulties. Rev Bras Enferm. 2020;74(2):1-8. <http://dx.doi.org/10.1590/0034-7167-2019-0849>
19. Teixeira AFJ, Franco A, Castanharo J, Oliveira KCS. Atuação da equipe de enfermagem no atendimento de emergência ao paciente com infarto agudo do miocárdio. Revista Fafibe On-Line [Internet]. 2015 [acesso em 03 jun 2021];1(8):300-309. Disponível em: <https://www.unifafibe.com.br/revistasonline/arquivos/revistafafibeonline/sumario/36/30102015185545.pdf>
20. Ribeiro KRA, Silva LP, Lima MLS. Conhecimento do Infarto agudo do miocárdio: implicações para assistência de enfermagem. Revista e Enfermagem da UFPI [Internet]. 2016 [acesso em 03 jun 2021];5(4):63-68. Disponível em: <https://www.ojs.ufpi.br/index.php/reufpi/article/view/5546/pdf>
21. Crispim CG, Ribeiro WA, Fassarella BPA, NevesKC, Franco AA, Silva ASR, Souza ABT, Silva IS, Guinancio JC, Carvalho BL. Estratégias de enfrentamento do estresse ocupacional na ótica de enfermeiros emergencistas. Glob Clin Res. 2022;2(1):e14. <https://doi.org/10.5935/2763-8847.20220014>

