

# Nursing process for people with cardiological worsening provided for in resolution 736/2024

## Processo de enfermagem á pessoa com agravo cardiológico pautado na resolução 736/2024

## Proceso de enfermedad de personas con empeoramiento cardiológico previsto en la resolución 736/2024

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# REVISA

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### RESUMO

**Objetivo:** descrever o processo de enfermagem às pessoas com agravos cardiológicos. **Metodologia:** Trata-se de um relato de experiência através da aplicação do processo de enfermagem, voltado para pessoas com agravos cardiológicos no contexto hospitalar. **Resultados:** Foi aplicado a teoria da adaptação nas seis fases da Teoria de Calista Roy e foi elaborado diagnósticos de enfermagem para os quatro modos de adaptação: fisiológico, interdependência, autoconceito e função de papel. **Considerações finais:** Ao aplicar o PE no indivíduo com agravos cardiológicos a equipe multidisciplinar deve realizá-lo em todas as suas etapas, e utilizar os protocolos para oferecer um cuidado holístico e integral, visando a promoção da saúde, prevenção de risco potencial e adaptação diante das necessidades em saúde.

**Descritores:** Multiprofissional; Cuidado; Família; Cardiológico.

### ABSTRACT

**Objective:** to describe the nursing process for people with cardiological problems. **Methodology:** This is an experience report through the application of the nursing process, aimed at people with cardiological problems in the hospital context. **Results:** The adaptation theory was applied in the six phases of Calista Roy's Theory and nursing diagnoses were developed for the four modes of adaptation: physiological, interdependence, self-concept and role function. **Final considerations:** When applying PE to individuals with cardiological problems, the multidisciplinary team must carry it out in all its stages, and use protocols to offer holistic and comprehensive care, aiming to promote health, prevent potential risk and adapt to of health needs.

**Descriptors:** Multidisciplinary; Careful; Family; Cardiological.

### RESUMEN

**Objetivo:** describir el proceso de enfermería de personas con problemas cardiológicos. **Metodología:** Se trata de un relato de experiencia mediante la aplicación del proceso de enfermería, dirigido a personas con problemas cardiológicos en el contexto hospitalario. **Resultados:** Se aplicó la teoría de la adaptación en las seis fases de la Teoría de Calista Roy y se desarrollaron diagnósticos de enfermería para los cuatro modos de adaptación: fisiológico, interdependencia, autoconceito y función de rol. **Consideraciones finales:** Al aplicar la EP a personas con problemas cardiológicos, el equipo multidisciplinario debe realizarla en todas sus etapas y utilizar protocolos para ofrecer una atención holística e integral, con el objetivo de promover la salud, prevenir riesgos potenciales y adaptarse a las necesidades de salud.

**Descritores:** Multidisciplinario; Cuidadoso; Familia; Cardiológico.

## Introduction

The Nursing Process must be based on theoretical support, which can be associated with each other, such as Theories and Models of Care, Standardized Language Systems, validated risk prediction assessment instruments, evidence-based protocols and other related knowledge, such as theoretical, conceptual and operational frameworks that provide descriptive, explanatory, predictive and prescriptive properties that serve as a basis (BRASIL, 2024). The nursing process (NP) is a fundamental work methodology to guide nursing care actions for individuals in the health-disease context, with the objective of bringing together nursing activities so that they are not done in isolation and are part of a process. This process is guided by at least one theory, and is composed of orderly, dynamic, interacted and independent steps that can occur in any scenario of direct customer service<sup>1</sup>.

Thus, the need to apply the NP to people with clinical and surgical approaches to cardiovascular diseases is necessary due to the various cardiovascular diseases that affect the Brazilian population. Examples are: unstable angina, acute myocardial infarction, congestive heart failure, among others. The Ministry of Health pointed out in an analysis of the health situation in Brazil in 2018 that cardiovascular diseases are the leading cause of death in Brazil<sup>2</sup>. It is urgent that nursing professionals are trained to provide quality, comprehensive and humanized care to people with cardiovascular diseases, as well as to improve prevention actions for the disease.

The nursing process is referred to by the Nursing Council, which calls it Systematization of Nursing Care (NCS), considering this to be a private activity of the nurse, regulated by the Law of Professional Practice (BRASIL, 1986), complemented by Resolution No. 358/2009 of the Federal Council of Nursing<sup>3</sup>. In 2024, resolution 736 of 2024 emerges, which provides for the implementation of the Nursing Process in every socio-environmental context where nursing care occurs.

Therefore, the NCS emerges as an operationalizing tool of the nursing process, through the organization of work, in terms of method, instruments and personnel, and should be performed in all environments, public or private, in which nursing care occurs<sup>3</sup>. Consequently, the nursing process through NCS is a method to care for others in a more organized and systematic way, based on the following stages: history; diagnosis, planning, implementation and evaluation<sup>4</sup>. Nursing theory, on the other hand, functions as a structural foundation to implement NCS, considering the importance of a conceptual framework that supports the care and organization that the service aims to achieve<sup>1</sup>. Based on the assumptions of the theory employed, nurses can align care and management activities, enabling the implementation of effective, efficient, patient-focused and safe care.

The objective of this study is to describe the nursing process for people with cardiac problems.

## Method

It is an experience report that seeks to understand and consider the complexity of the human being, contributing to the approximation of theory with practice. This report may support the quality of care for people with cardiovascular diseases.

Considering the importance of combining a nursing theory with the NP and, in our case, with the person with cardiovascular problems, Calista Roy's (1991)<sup>5</sup> adaptation theory proposes that the patient is a biopsychosocio-spiritual being, with interactions depending on changes in his or her life, and recommends four models of adaptation: physiological needs, self-concept, functional role, interdependence. The first model or physiological needs are organized into five basic needs: oxygenation; nutrition; elimination; activity and rest; protection. The second model is the mode of self-concept that highlights the psychological and spiritual aspects of the human being. The third model, on the other hand, is divided into instrumental behaviors, which refers to the set of roles that the subject plays in society and expressive behaviors that are related to emotions, and feedbacks. The last model is the mode of interdependence or social mode that is related to the affective needs satisfied, of giving and receiving affection, love, affection, affirmation<sup>5</sup>. Roy proposed in his theory a nursing process composed of 6 phases.

## Results

The collection of data or nursing history of the nursing process corresponds to the 1st and 2nd stage of the MAR. It is worth mentioning that at this stage it is necessary to consider the information that permeates the subjective, objective, historical and current dimensions of the lives of individuals. It is an important moment of contact and emergence with the beliefs and customs, habits and needs of the other. At this time the nurse will collect data and the main problems found are: chest pain that radiates to the arm, palpitation, shortness of breath, loss of consciousness, fainting, edema in Mmii, tachycardia, nausea, loss of appetite and unjustified weight gain.

It is necessary to be attentive to this biomedical information, among others, such as the emotional state and the conditions of understanding of the individual regarding the procedure to be performed, as well as to involve the family in the care process. In the MAR, the evaluation of stimuli would be included in this stage, which helps the nursing professional to identify internal or external circumstances that will act on their behaviors. At this stage, the theory states that there are three stimuli, the focal, the contextual and the residual. The first refers to the person's own condition or the context inserted or how this will impact the behaviors assumed, which were evaluated in the first phase. The contextual are those elements that directly permeate the focal, interfere in the individual's mode of adaptation, such as age, sex, family, ethnicity and others. Finally, the residuals are indirect stimuli, often not perceived by the person, but which also contribute to the adaptive process.

On physical examination, general appearance, cognition, skin, BP, arterial pulses, pressure, venous and jugular pulse, limbs, and lungs should be noted. Signs should be checked, in addition to inspection, palpation, percussion, and auscultation. On inspection, the general appearance is verified,

jugular venous distension, chest, limbs and heated skin, normal coloration, capillary filling <2 sec + maximum impulse point and not visible and no jugular distension. The most common clinical manifestations are: chest pain (checking if the pain is radiating and intermittent, persistent, if it hurts on palpation, if it worsens on exertion), dyspnea (what precipitates or relieves, if it worsens on exertion, if it is necessary to get up to sleep, if it is paroxysmal nocturnal or orthopnea), palpitations (if it exists, how long, what relieves or precipitates), weakness or fatigue (characteristic of exertion, is it relieved with rest, if there is weakness of the lower limbs, if it accompanies edema or pain?), dizziness or syncope (if the episodes are frequent, what precipitates, how long, what relieves).

The 2nd stage of the NP corresponds to the 3rd phase of the MAR or nursing diagnosis are linked to the problems encountered and the elaboration of diagnoses according to the positive or negative adaptation of the patient, potential problems and situations of well-being related to biological, psychic, social and spiritual conditions, since the focus of care is the person and not the disease. This stage culminates in decision-making, that is: the responses of the person, family or human collectivity that constitute the basis for the selection of actions or interventions with which the expected results are achieved. It should be noted that diagnoses should be presented by priority and the great differential between the nurse and the physician is that they diagnose diseases and we diagnose human responses resulting from health problems and life processes. This phase will be based on the taxonomy II of NANDA International (North American Nursing Diagnosis Association) and should be based on the four adaptation models. The structure of NANDA-I contains seven axes or dimensions of human response. In the current taxonomy, 244 diagnoses are organized and approved, distributed in 13 domains and 47 classes. The nursing diagnosis is made up of structural components: diagnosis title, definition, related factors, defining characteristics, associated conditions, risk factors, and population at risk. These structural components will compose 3 types of diagnoses (1-Problem-focused diagnosis- composed of title, related factor and defining characteristic, 2- Risk diagnoses- composed of titer and risk factors, and health promotion diagnoses- composed of titer, related factor and defining characteristic).

The main nursing diagnoses developed for people with respiratory problems are:

#### PHYSIOLOGICAL MODE

Acute pain related to injurious agents evidenced by self-reported pain 7/10.

Ineffective Breathing Pattern Evidenced by: Abnormal breathing pattern  
Related to: Fatigue

Decreased cardiac output related to altered contractility, evidenced by tachycardia, change in blood pressure, cold, clammy, clammy skin.

Risk of pressure injury evidenced by bed restraint.

Risk of falls due to advanced age.

## INTERDEPENDENCE/ROLE FUNCTION AND SELF-CONCEPT

Disposition to improved health control related to the desire to improve control of prescribed regimens

Risk of impaired religiosity evidenced by the need to participate in religious celebrations

Interrupted family processes related to the impairment of the health status of a family member evidenced by interruption in usual social activities.

The 3rd stage of the EP corresponds to the 4th phase of the MAR or setting the goals are the expected results or final behavior that one wants to achieve. This phase is carried out after formulating the diagnoses, establishing objectives and expected results, and implementing and developing specific interventions. Nursing interventions are carried out through nursing prescriptions, based on the planning carried out. The expected outcome should be related to the nursing diagnosis, be patient-centered, be achievable, contain a time limit, be measurable, and be objective. The recording and monitoring of the expected results (ER) make it possible to obtain indicators capable of indicating how much the nursing team contributes to meeting the needs presented by those who demand their care. Thus, nursing professionals should prevent risk diagnoses from evolving into problems, minimize or solve problems, and maintain a diagnosis focused on promotion. The expected outcome should be based on the Nursing Outcomes Classification (NOC), which is a taxonomy complementary to the NANDA-I taxonomy, divided into 7 domains (functional health, physiological health, psychosocial health, health knowledge, perceived health, family health, and community health) and 32 classes, with 490 nursing outcomes (MOORHEAD et al., 2016). In this way, nurses can evaluate their conducts, maintain them or modify them in order to improve the quality of care provided by the nursing team.

Some expected results from physiological mode diagnostics.

Acute pain- ER- Pain control. Indicator-no pain

Ineffective Breathing Pattern Evidenced by: Abnormal breathing pattern

Related to: Fatigue. ER- Breathing pattern within the normal range.

Respiratory pattern indicator between 18 and 20 inc/min

Decreased cardiac output related to altered contractility due to tachycardia, change in blood pressure, cold, clammy and clammy skin. RE- Cardiac Output within the normal range. Indicator - FR between 80 and 100bat/min.

Risk of pressure injury evidenced by bed restraint. RE- skin and mucous membranes not affected. Indicator- uncompromised tissue integrity

Risk of falls due to advanced age. RE- Fall occurrences: none; Indicator: No Bed Fall

Some expected results of the INTERDEPENDENCE/ROLE FUNCTION and SELF-CONCEPT mode

Disposition to improved health control related by the desire to improve control of prescribed regimens. RE- Improve health condition. Indicator: Improved Health

Risk of impaired religiosity evidenced by the need to participate in religious celebrations. RE- Uncompromised spiritual health. Indicator: Interaction with non-committed spiritual leaders

Interrupted family processes related to the impairment of the health status of a family member evidenced by interruption in usual social activities. RE- Uncompromised family processes. Indicator: family well-being.

The 4th stage of the NP corresponds to the 5th stage of the MAR or intervention is the nursing care itself to achieve the goals.

The care related to the diagnoses are:

Acute pain- Perform comprehensive pain assessment, including site, characteristics, onset, duration, frequency, intensity, and precipitating factors in order to determine appropriate intervention, ensure patient pain relief with medications and relaxation techniques, music therapy, massage.

Ineffective breathing pattern- Monitor SSVV; mainly RF and O2 sat, Monitor lung sounds; Position the patient to minimize respiratory effort; Initiate and maintain the use of supplemental oxygen as prescribed;

Decreased cardiac output- Offer real information about diagnosis, treatment, and prognosis, Auscultate heart sounds, Monitor neurological status, Monitor electrolyte laboratory values that may increase the risk of arrhythmias (potassium), Monitor rhythm, heart rate, and blood pressure, Auscultate lungs for crackles or other adventitious noises, Obtain ECG whenever chest pain.

Risk of Pressure Injury- Apply braden scale, change of decubitus, use of cushions and pneumatic mattress, education and health guidelines for patients and families on injury prevention.

Risk of falls- Apply fall risk scales daily, leave railings raised, guide patients and families on preventive actions to avoid falls.

Willingness to improve health control - Encourage the person to improve health conditions through knowledge, refer to services that are necessary for their improvement/cure, encourage the use of prescribed medications and therapies.

Risk of impaired religiosity- Authorize the priest to enter, encourage the patient to continue his prayers, ask the object family to remember their faith (rosary or similar). Interrupted Family Processes - Encourage the presence of family members; Optimize restful sleep, pain relief, emotional control; Monitor sleep pattern and number of hours slept; Provide a calm and safe environment.

The 5th stage of the EP, corresponds to the 6th phase of the MAR or evaluation refers to the judgment of the effectiveness of the proposed interventions. It is noteworthy that this stage is a continuous process of verifying changes in the individual's responses to determine whether the nursing actions or interventions achieved the expected result.

## Discussion

The Nursing Process must be based on theoretical support, such as ROY Theories that provide descriptive, explanatory, predictive and prescriptive properties that serve as a basis.<sup>6</sup>

To this end, communication between professional and individual should take place in a dialogical and negotiated manner, enabling the construction of knowledge about the mutual health and disease process<sup>7</sup>. In this way, nurses can appropriate the determinants and conditioning factors of individuals' health and thus plan their actions in line with their needs, from the perspective of fostering autonomy and consequent improvement and maintenance of health<sup>8</sup>. Data collection refers to the collection of information about health

status from data collected directly or indirectly (other sources such as family, friends, medical records). At this stage, the nurse identifies clues and makes inferences. After this stage, it is important to confirm the data and subsequently group them depending on the theory used, identifying the causal factors and communicating and recording the data in the medical records to ensure the continuity of care<sup>9</sup>. It should be emphasized that this investigation should be guided by nursing theories, including data collection instruments, norms, routines and protocols inherent to it<sup>10</sup>. In the case of cardiovascular diseases, this data collection should be based on the four models of adaptation: physiological needs, self-concept, functional role, and interdependence. The physical examination follows the steps of observation, inspection, percussion, and auscultation<sup>11</sup>.

It should be noted that these data, added to psychological, social and spiritual issues, will provide support for the formulation of diagnoses, considering that nurses treat human responses to health problems and/or life processes based on clinical and reflective analysis of the information retained. It should be noted that the history precedes a script that assists and orders the nurse to collect, validate, group and record the data<sup>12</sup>.

Thus, at the end of data collection, the nurse summarizes what was said to the individual, opening space for clarification and negotiation, providing opportunities for health education to be carried out from the beginning of the process<sup>13</sup>.

After the interventions, the care offered is monitored and evaluated, verifying whether each result has been achieved<sup>14</sup>. In negative cases, the nurse should evaluate the expected results again and work together with the health team in formulating/changing actions to improve the individual's health condition, and thus plan for the individual's discharge. Hospital discharge is an important stage of NCS, as it directs the plan and implementation of actions during the period between admission and hospital discharge, with the purpose of providing continuity of care to the client at home<sup>15</sup>.

The nurse, through the identification of the individual's needs in the collection of data during the history, develops a complete action plan to improve the health of that person. Discharge planning is an agreement between nurse, individual and family developed while still in the hospital and that will extend to the individual's home after discharge. According to the WHO<sup>16</sup>, discharge planning becomes a strategy to prepare the individual and family to assume responsibilities for the continuity of care. Aspects of health education are essential for the continuity of this care<sup>17</sup>.

The nurse, during the discharge plan, may formulate a script to be delivered to the individual, containing information about the procedure that was performed, the necessary care, in addition to the orientation that any alteration that is identified, return to the unit. The nurse then develops her planning in order to adapt the individual, promoting coping measures to the new problem<sup>18</sup>.

## Conclusion

However, despite the advances in the scientific and technological knowledge of nursing professionals and the development of tools that enable

the improvement of their service, the actions of nurses today are almost always established in the hegemonic care model, following a technician and interventionist logic.

When applying NCS to individuals with cardiac problems, nurses should perform it in all its stages, and use the protocols to offer holistic and comprehensive care, aiming at health promotion, prevention of potential risk and adaptation to health needs.

It should be noted that the use of evidence-based practice comprises the process that integrates individual clinical competence and well-founded research results (based on 5 steps: definition of the problem, identification of the necessary information, search for studies, evaluation of the applicability of the data obtained and determination of its use for the patient). Thus, it is urgent that nurses carry out research to extract the best levels of evidence to provide safe care to patients.

In addition to NCS being worked on based on adaptation theory and with a focus on evidence, it is important to highlight the importance of health education, which is an important tool for improving care and health and living conditions. The health education developed by the nurse is guaranteed by the law of professional practice in article 8, where the nurse participates in health education activities, providing a better quality of life for the individual, family and community.

Finally, it should be noted that the entire nursing process focused on the theory of adaptation must take into account patient safety with strategies aimed at risk management that have been implemented based on hospital accreditation standards, protocol creations, guides, manuals and bundles. All these strategies can be linked to nursing diagnoses in order to minimize complications and ensure greater safety in the care provided.

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