Postoperative Myocardial Revascularization: Possible Diagnosis And Nursing Interventions

Pós-Operatório de Revascularização do Miocárdio: Possíveis Diagnósticos e Intervenções de Enfermagem

La Revascularización Miocárdica Postoperatoria: Posibles Diagnósticos e Intervenciones de Enfermeira

*Kaiomakx Renato Assunção Ribeiro1; Fernanda Alves Ferreira Gonçalves2; Maria Madalena Borges3; Rayana Gomes de Oliveira Loreto4; Mônica Santos Amaral5

How to quote this article:

ABSTRACT

Objective: The research's main focus was to describe both the diagnosis and nursing interventions most common in the postoperative period of myocardial revascularization. Methods: It is an integrative literature review that was performed an analysis of publications on the subject. In order to guide the literature search, it was used the Patient, Intervention, Comparison and Outcomes (PICO) strategy, and with the purpose of complement the review, 13 articles on the topic were selected. Results: The research data made possible to identify 25 nursing diagnosis, according to the North American Nursing Diagnosis Association (NANDA) Taxonomy II, among them are Risk for infection; Acute pain; Decreased cardiac output; Impaired gas exchange; Risk for unstable blood glucose level among others. Conclusion: The research proved to be crucial to developing studies regarding nursing diagnosis in the postoperative period of myocardial revascularization, directing the nursing patient-specific actions, and then facilitating their decision-making process.

Descriptors: Cardiac Surgery, Nursing Diagnosis, Nursing Interventions, Myocardial Revascularization.

1 Nursing Graduate by the UNIVERSO, Specialist’s Degree in Cardiology and Hemodynamics by the Centro Goiano de Pesquisa e Pós-Graduação, Nursing Residency student by the Secretaria de Estado de Saúde do Distrito Federal-SESDF, Researcher in the research group: Rede de Cuidados de Enfermagem aos Pacientes Críticos-CNPq, Escola Superior de Ciências da Saúde-Distrito Federal (ESCS-DF), Brazil.
2 Nursing Graduate by the UFG, PhD student enrolled in the Nursing Postgraduate Program by the FEN/UFG, Faculdade de Enfermagem da Universidade Federal de Goiás (FEN/UFG), Brazil.
3 Nursing Graduate by the PUC-GO, Specialist’s Degree in Hospital administration by the Universidade de Ribeirão Preto (UNAERP), Assistant professor by the UNIVESOR. Universidade Salgado de Oliveira (UNIVERUSO), Brazil.
4 Nursing Graduate by the PUC-GO, PhD student enrolled in the Nursing Postgraduate Program by the FEN/UFG, Professor at PUC-GO, Academic Coordinator at FBC. Universidade Federal de Goiás (UFG), Brazil.
5 Nursing Graduate by the Universidade de Rio Verde, MSc in Health Care by the PUC-GO, Professor at the Faculdade de Inhumas – FacMais. Pontifícia Universidade Católica de Goiás (PUC-GO), Brazil.
RESUMEN

Objetivo: Describir los diagnósticos de enfermería y las intervenciones más comunes en el postoperatorio de cirugía de revascularización miocárdica.

Metodos: Se trata de un examen integrador de la literatura, con el análisis de la publicación sobre el tema. A lo largo de la investigación se seleccionaron 13 artículos sobre el tema. Resultados: La información nos permitió identificar 25 diagnósticos de enfermería, según la taxonomía de la NANDA II, entre ellos destacan: Risco para infección; Dor agudo; Debito cardíaco diminuido; troca de gases prejudicada; Risco de Glicemia instável dentre outros. Conclusión: El estudio demostró ser crucial para desarrollar estudios sobre diagnósticos de enfermería en el postoperatorio de cirugía de revascularización miocárdica, dirigiendo las acciones de enfermería específicas para cada paciente, facilitando su toma de decisiones.

Descripciones: Cirugía Cardíaca, Diagnósticos de Enfermería, Intervenciones de Enfermería, Revascularización Miocárdica.

INTRODUCTION

According to data from the World Health Organization (WHO), the main cause of death in the world, and consequently in Brazil, has as its factor heart diseases, which represent 33% of mortality in the country. These are causes related to diseases that affect the blood vessels.\(^1\)

The different symptoms that can manifest in the onset of heart disease are characterized as tiredness, chest pain, tingling in the upper limbs and shortness of breath. Nevertheless, cardiovascular diseases can be asymptomatic, appearing as the first manifestation, sudden death or in the form of an acute myocardial infarction. In this sense, the prevention of these diseases still constitutes a life-saving mediation, even with all the advances currently brought by medicine for the treatment of heart disease.\(^1\)

The prevalence with a constant increase of ischemic heart diseases motivated the appearance of a great number of studies aiming at the improvement of its treatment, diagnosis and prophylaxis. Despite the great success of angioplasty, myocardial revascularization surgery is still considered today, the treatment method indicated for many of these patients.\(^2\)

Nevertheless, these surgical therapies are complex, regardless of the operative phase that is found which requires proper treatment in all of these phases. The Postoperative (PO) period of cardiac surgeries, is the time in which the recovery of the patient in post-anesthetic and in post-surgical stress is observed, and it is marked by the instability of the patient's clinical condition, being full of particularities, mainly because it is a period of critical care.\(^3\)

Therefore, the nurse must provide direct care to critically ill patients, and great attention should be given to each patient, since they may present different hemodynamic instabilities in the disease development. Although, in order for nurses to perform an effective care practice, it is necessary to pay attention to identifying and meeting the specific needs of each patient and in the best possible way.\(^2\)

Hence, for the direction of their conducts, nurses use scientific methods such as the Nursing Care Systematization (NCS), which include the history of nursing, nursing diagnoses, planning, implementation and evaluation of the assistance results. These needs may vary or have different priorities according to the PO period, in other words, whether immediate, mid-term or late, and the nurse must develop cognitive, technical, organizational and constructive interpersonal skills and competencies with the purpose of adequately serve them.\(^3\)

One of the steps of NCS is the Nursing Diagnosis (ND) that provides a standardized communication among nurses to detect during the identification and annotation of problems that manifest in the patient, becoming a vehicle of specific language recognized globally.\(^4\)

The nursing diagnoses for all patients, including those submitted to the myocardial revascularization procedure, are based on several theories of nursing, among them the Theory of Orem, Florence, Roy, etc. Among the main NDs, these may be present: decreased cardiac output, impaired spontaneous ventilation, risk of infection, impaired gas exchange, risk of ineffective tissue perfusion, decreased urine output among others.\(^5\)

Bearing in mind the aforementioned, the present study aims to answer the following guiding question: What are the main nursing diagnoses and interventions for patients in the postoperative period of myocardial revascularization?

The research is justified by the importance of knowing the diagnoses and the nursing interventions before the patients who are in the postoperative myocardial revascularization period, so that the nurse has in mind and in hand, a tool to elaborate the systematization of the nursing assistance, which has as one of its stages, the identification and elaboration of ND.

The nursing diagnosis is a tool that will guide the care provided to the patient focused on their needs. This knowledge, when applied to patients submitted to
myocardial revascularization procedure, allows nurses to interpret and prescribe care that will collaborate in the therapy of these patients, thus favoring a standardization in communication among the nursing team. Therefore, the present study aimed to describe the most common nursing diagnoses in the postoperative period of myocardial revascularization, as well as the possible nursing interventions against the diagnoses found.

**METHODS**

It is an integrative literature review that consists of a broad analysis of published studies that allow discussions about methods and research results (Mendes, Silveira, Galvão). It is a tool that permits the analysis of primary and secondary articles with several types of design, focused on the proposed theme, and it is fundamental to define in a clear and specific way the subject to be studied with the goal of reaching conclusions of easy interpretation. This research covered 5 steps, 1st phase: Definition of the guiding question (What are the main nursing diagnoses and interventions for patients in the postoperative myocardial revascularization period?); 2nd phase: Data collection (definition of databases and search of articles); 3rd phase: Selection of data and by means of inclusion and exclusion criteria established; 4th and 5th phase: Data analysis through the reading of the articles and discussion of the results found.

Data collection was carried out by a search in the databases Base de Dados de Enfermagem (BDENF) [Nursing Database], Literatura Latino-Americana e do Caribe em Ciências da Saúde (LILACS) [Latin American and Caribbean Literature in Health Sciences], Scientific Electronic Library Online (SciELO), Biblioteca Virtual em Saúde (BVS) [Virtual Health Library]. The inclusion process employed the articles available in full, online, in Portuguese, English, and Spanish, with publication from 2006 to 2017, addressing the proposed theme. The documents were selected from the terms contained in the Health Sciences Descriptors (DeCS): “Cardiac surgery”, “nursing diagnoses”, “myocardial revascularization”, and “nursing interventions.” Documents such as annals of scientific events, preliminary notes, and manual have been disregarded.

The collection was performed from January to March 2017, based on the guiding question: What are the main nursing diagnoses and interventions for patients in the postoperative myocardial revascularization period? The Evidence-Based Practice (EBP) is a methodology used to identify the evidence of a treatment and diagnosis, being effective to evaluate the quality of the studies and mechanisms of assistance implementation. The scientific evidence consists of a certain subject where it is certified as false or true, a previous research is necessary.

The EBP consists of stages that aid in the data synthesis, to search for the studies to be analyzed: problem identification, relevant question formulation, evidence search, evaluation, applicability analysis, implementation and conclusion of the results. Through this, articles were identified, of which 94 articles were excluded through the Patient, Intervention, Comparison and Outcomes (PICO) strategy, which is a tool used by evidence-based practice, with the objective of aiding in the bibliographic survey, seeking to solve problems of assistance, teaching and research practice, according to Table 1.

**RESULTS AND DISCUSSION**

Herein, there were chosen 13 articles addressing this topic. The presentation of the results and discussion were done in a grouped, descriptive and analytical way, enabling the reader to evaluate the applicability and understanding of the integrative review, providing the nurses with the necessary tools to assist in their decision-making process.

**Table 1: Search strategy and article selection by PICO. Goiânia city, Goiás State, Brazil, 2017.**

<table>
<thead>
<tr>
<th>Letter</th>
<th>Description</th>
<th>Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>P</td>
<td>Patient</td>
<td>Patient in the postoperative cardiac surgery (myocardial revascularization) period</td>
</tr>
<tr>
<td>I</td>
<td>Intervention</td>
<td>Nursing team</td>
</tr>
<tr>
<td>C</td>
<td>Comparison</td>
<td>Nursing diagnoses and possible interventions in the postoperative myocardial revascularization period</td>
</tr>
<tr>
<td>O</td>
<td>Outcomes</td>
<td>The importance of knowledge of nursing diagnoses in patient care during the postoperative myocardial revascularization period and the implications for their care practice</td>
</tr>
</tbody>
</table>

Through this survey, 10 scientific papers were studied and an analytical reading of all contents was carried out, followed by the questioning, description and discussion of the results.

**Table 2: Distribution of results according to nursing domains, classes and diagnosis. Goiânia city, Goiás State, Brazil, 2017.**

<table>
<thead>
<tr>
<th>Domains</th>
<th>Classes</th>
<th>Most Common Nursing Diagnoses (Frequency over 50%) Descriptors in the Literature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nutrition</td>
<td>Metabolism</td>
<td>Risk of unstable blood glucose level</td>
</tr>
<tr>
<td>Respiratory</td>
<td>Function</td>
<td>Risk of electrolyte imbalance</td>
</tr>
<tr>
<td>Gastrointestinal</td>
<td>Function</td>
<td>Improper gas exchange</td>
</tr>
<tr>
<td>Activity/Rest</td>
<td>Exercise</td>
<td>Improper physical mobility</td>
</tr>
<tr>
<td>Coping/stress Tolerance</td>
<td>Coping</td>
<td>Ability</td>
</tr>
<tr>
<td>Security and Protection</td>
<td>Cardiac/ Pulmonary Responses</td>
<td>Decreased cardiac output</td>
</tr>
<tr>
<td>Physical injury</td>
<td>Risk of aspiration</td>
<td></td>
</tr>
<tr>
<td>Physical injury</td>
<td>Ineffective tissue perfusion</td>
<td></td>
</tr>
<tr>
<td>Physical injury</td>
<td>Impaired skin integrity</td>
<td></td>
</tr>
<tr>
<td>Comfort</td>
<td>Physical comfort</td>
<td>Acute pain</td>
</tr>
</tbody>
</table>
Table 3: Diagnosis and interventions/nursing activities. Goiânia city, Goiás State, Brazil, 2017.

<table>
<thead>
<tr>
<th>Nursing diagnoses</th>
<th>Interventions/nursing activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk of skin injury</td>
<td>Prevention of skin breakdown, including proper positioning and skin care intervention.</td>
</tr>
<tr>
<td>Risk of respiratory failure</td>
<td>Implement mechanical ventilation, monitor respiratory rate, and assess for signs of respiratory distress.</td>
</tr>
<tr>
<td>Risk of infection</td>
<td>Administer antibiotics, monitor for signs of infection, and maintain sterile techniques.</td>
</tr>
<tr>
<td>Risk of cardiac failure</td>
<td>Monitor heart rate and blood pressure, administer diuretics as needed, and adjust medications accordingly.</td>
</tr>
<tr>
<td>Risk of hemorrhage</td>
<td>Monitor for signs of bleeding, keep a meticulous record of blood products administered, and monitor for signs of coagulopathy.</td>
</tr>
<tr>
<td>Risk of constipation</td>
<td>Encourage fluid intake, dietary fiber, and gentle abdominal massage to promote bowel movements.</td>
</tr>
<tr>
<td>Risk of impaired mobility</td>
<td>Implement assistive devices, offer transfers and repositioning assistance, and promote active range of motion exercises.</td>
</tr>
<tr>
<td>Risk of impaired self-care</td>
<td>Implement bedside chairs, showers, and non-slip surfaces to promote independence in self-care activities.</td>
</tr>
<tr>
<td>Risk of impaired social interaction</td>
<td>Encourage interaction with family and friends, provide social activities, and offer emotional support.</td>
</tr>
</tbody>
</table>

**Risk of impaired peripheral tissue perfusion**

- Check for redness, warmth, and pain in the affected limb.
- Monitor for changes in capillary refill time in the postoperative period.
- Evaluate signs of hypoperfusion and hypoxia.
- Perform capillary closure test during the patient's stay in intensive care unit.
- If recommended, perform a pentetidine test in the patient's chart, related to the identification of the patient, the team's behavior, and the patient's answers.

**Risk of ineffective peripheral tissue perfusion**

- Monitor the occurrence of medical manifestations, such as hypothermia, tingling, hyperthermia, and hypotension.
- Examine the skin for changes in warmth, moisture, and skin temperature.
- Control pressure on peripheral arteries.
- Examine peripheral pulse quality of the patient; look for peripheral disease function (e.g., levels of urea, creatinine).
- Position the patient appropriately (e.g., levels of glucose, blood pressure).
- Monitor laboratory results related to fluid retention.
- Observe signs and symptoms of peripheral arterial insufficiency.
- Monitor symptoms of kidney failure (edema, neurological changes).
- Monitor symptoms of kidney failure.

**Risk of decreased cardiac tissue perfusion**

- Monitor vital signs: blood pressure, pulse, respiratory pattern and observe and detect; verify the presence and quality of the pulse: Control pressure of peripheral arteries.
- Accompany skin color and temperature.
- Cardio: evaluate chest pain (intensity, location, duration and precipitating factors and relief).
- Document: cardiac rhythms; orient the patient to immediately report chest discomfort; observe signs and symptoms of respiratory failure.
- Bedside laboratory tests: Monitor laboratory results related to cardiac oxygen mask oxygen therapy, observe signs of oxygen induced ventilatory response; monitor the patient to facilitate the ventilation/inspiration combination; monitor respiratory parameters (e.g., apnea, hypercapnia, hypoxemia)
- Monitor trend in oxygen saturation, chest x-ray, respiratory rate and rhythm, and signs and symptoms of wound infection.
- Observe skin condition and perform early mobilization and function evaluation: check the surgical incision site after each dressing change and assess for signs of infection from each dressing change.

**Risk of bleeding**

- Monitor the patient for signs of bleeding.
- Establish and maintain an effective oxygen mask.
- Monitor the patient for signs of bleeding.
- Discourage smoking and alcohol consumption.
- Administer and maintain effective oxygen mask therapy.
- Monitor the patient for signs of bleeding.

**Risk of impaired pulmonary function**

- Check for signs of respiratory distress: cyanosis, tachypnea, hypercapnia, hypoxemia.
- Monitor trend in oxygen saturation, respiratory rate and rhythm.
- Monitor trend in respiratory rate and rhythm.
- Monitor trend in oxygen saturation, chest x-ray, respiratory rate and rhythm, and signs and symptoms of wound infection.
- Observe skin condition and perform early mobilization and function evaluation: check the surgical incision site after each dressing change and assess for signs of infection from each dressing change.

**Risk of impaired self-care**

- Implement bedside chairs, showers, and non-slip surfaces to promote independence in self-care activities.
- Encourage interaction with family and friends, provide social activities, and offer emotional support.
- Implement assistive devices, offer transfers and repositioning assistance, and promote active range of motion exercises.
- Administer medications (e.g., bronchodilators and inhalers) to promote airway clearance and gas exchange.
- Clear airways through tracheal aspiration.
- Keep the airways humidified and use oropharyngeal suction as needed.
- Maintain respiratory rate (respiratory rate, oxygen saturation, dyspnea, presence of adventitious noise).
- Keep pneumolysis with IPPV care protocol.
- Protect skin to prevent breakdown.
- Perform change of dressings.
- Protect skin to promote mobility.
- Increase humidity and oxygenation.
- Use humidifiers.
- Use and maintain care with pressure areas.
- Monitor the skin for changes in texture, color, and temperature.
- Observe skin condition and perform early mobilization and function evaluation: check the surgical incision site after each dressing change and assess for signs of infection from each dressing change.

**Risk of impaired social interaction**

- Implement bedside chairs, showers, and non-slip surfaces to promote independence in self-care activities.
- Encourage interaction with family and friends, provide social activities, and offer emotional support.
- Implement assistive devices, offer transfers and repositioning assistance, and promote active range of motion exercises.
It was noticed that several nursing diagnoses addressed in the literature can be directed to patients who are in the postoperative period of myocardial revascularization surgery. Among the main ones, there may be decreased cardiac output, risk of infection, acute pain, risk of reduced cardiac tissue perfusion, risk of bleeding, impaired spontaneous ventilation, impaired gas exchange, risk for imbalanced fluid volume, among others.

There are other NDs less mentioned in the literature, but no less important diagnostic form: Risk of ineffective peripheral tissue perfusion; Dysfunctional ventilatory weaning response; Risk of shock; Risk for ineffective cerebral tissue perfusion; Feeding self-care deficit; Delayed surgical recovery; Impaired comfort; Risk for delayed surgical recovery; Risk for imbalanced body temperature; Risk for infection; Risk for decreased cardiac output; Impaired gas exchange; Risk for imbalanced fluid volume, among others.

It is noteworthy that the ND of delayed surgical recovery can be directly related to those of acute pain and fatigue ND, since a study carried out in 2014, pointed out that pain and fatigue appear to be more a cause (related factor) of delayed surgical recovery than one defining feature. Hence, this ND, as well as the others emphasized in this study, deserve attention and redoubled focus, since it can contribute directly to the quality of nursing care as well as to the length of hospital stay.

The analysis of the publications that compose the results of the present study showed that most of the NDs were directly related to the postoperative period of cardiac surgeries, thus enabling knowledge of ND postoperative myocardial revascularization, which appeared in several ways in different patients. These evidence allowed knowing the ND available in the period that carries out myocardial revascularization, as well as a possible interconnection with the interventions that will be offered to these patients.

The professionals, who make up the multi-professional team, especially nursing, play a fundamental role in the recovery of the health and well-being of patients submitted to Myocardial Revascularization (MR) surgery. With the goal of achieving better results in the postoperative period, adequate nursing staff should be able to avoid or minimize possible complications in a potentially more severe population, aiming at reducing the length of stay in the Intensive Care Unit (ICU) and consequently, a considerable reduction in costs.

In order for this to happen, it is essential to know the profile of these patients, as well as the most incidental complications in the postoperative period, with the aim of raising subsidies for the preparation and qualification of the nursing team against the demands of care.

In a study with 22 patients undergoing cardiac surgery whose objective was to identify the nursing diagnoses according to NANDA taxonomy II for the planning of nursing care in patients in the postoperative period of coronary artery bypass graft surgery were based on the main ND: Risk of infection (22, 100%), Risk of constipation (22, 100%), Dressing self-care deficit (22, 100%), Impaired skin integrity (22, 100%), Impaired physical mobility, 90.9%), Impaired tissue integrity (20, 90.9%).

In another study that aimed to identify the nursing diagnoses in patients submitted to cardiac surgery, it pointed out 15 perceived diagnoses that were part of the assistance planning, such as: Impaired gas exchange, Ineffective airway clearance, Impaired verbal communication, Impaired bed mobility, Impaired skin integrity, Hypothermia, Hypertension, Ineffective renal perfusion, Decreased cardiac output, Acute pain, Insomnia, Anxiety, Risk of infection, Risk for imbalanced fluid volume, and Risk for unstable blood glucose level.

In Cruz and Lopez's (2010)' study with 20 patients, the lead objective was to identify the main nursing diagnoses in the postoperative period of cardiac surgery in an intensive care unit of a public hospital in Bauru city. The research highlighted that 100% of the patients had the following NDs: Anxiety; Impaired verbal communication, (Feeding, Bathing, Hygiene and Intimate hygiene) self-care deficit, Acute Pain, Impaired tissue integrity, Impaired bed mobility, Risk of aspiration, Risk for glyceria, Risk for imbalanced fluid volume, followed by two NDs, fear that affected 15 patients (75%), decreased cardiac output, and ineffective respiratory pattern affecting 12 patients (60%).

It is emphasized that ineffective breathing pattern, as well as other respiratory diagnoses, are generally a priority, since they directly affect tissue oxygenation, necessitating fast and tenacious interventions. Therefore, a careful evaluation of the respiratory function, as well as a good clinical judgment about the manifestations presented, is indispensable to elaborate a correct planning of the nursing actions.

Another study, which aimed to describe aspects of the different techniques of myocardial revascularization and the consequences for the nurse's performance in the care, showed that ND's presented in such situation were: Decreased cardiac output, Impaired gas exchange, Risk for imbalanced fluid volume, Acute pain, Risk of ineffective renal perfusion, Ineffective thermoregulation, Risk of infection, Risk of decreased cardiac tissue perfusion, Risk of bleeding, Risk for impaired skin integrity, and Risk of aspiration. Thus, it is perceived that there are several ND described in the literature that resemble those described in this study. Additionally, through the use of nursing classification systems, it is possible to direct the treatment and, thus, to better meet the needs of the patients, contributing to the construction of nursing knowledge and enhancement.

These NDs are subsidies to direct the systematized conduct of nursing, contributing directly to a better therapy of the patient that presents some complication coming from the MR postoperative. Also, NDs assist in the nurses' decision-making (nursing prescription), and guide the nursing...
team in the assistance provided, it can be said that the ND favors a humanized and patient-oriented assistance, which interferes directly to the reduction of errors in care, and consequently in the reduction of mortality of patients who underwent MR surgery, and who may or have developed some complication from this procedure.

Therefore, the knowledge of these diagnoses allows nursing to provide care at a high level of quality, with safety, confidence and technical capacity, directly contributing to the reduction of the hospitalization time of these patients.

Implications in nursing care practice

The failures during the nursing care to patients in the postoperative period may be due to the lack of training, skill and attention of these professionals. These factors are indispensable in the daily life assistance practice.

The identification of nursing diagnoses in this period has the purpose of guiding and assisting the planning of nursing care, based on the needs of each patient, resulting in effective actions to solve the problems.13

The lack of systematic observation, deficient training, or even lack thereof, and the lack of definition of the role of each member of the nursing team are the main causes of failure in surgical patient care.25 Consequently, the lack of knowledge on the part of the nurses makes it difficult to act on the clinical judgment of the patient's responses to the patient's health status. Nonetheless, the more familiarity nurses have with the ND, the greater their ability, agility and accuracy in diagnosing, which will result in greater visibility for the profession.27

Due to the modification of the clinical profile of patients undergoing myocardial revascularization surgery, and to the various complications that may be present in this surgical stage, it is necessary to qualify the nursing professionals, among them the nurse, to elaborate the care plan based on the main NDs for this type of patient, a fact that could significantly contribute to the reduction of morbimortality.

Considering this perspective, goals such as rehabilitating the health of revascularized patients and returning them to society can be achieved through essential actions such as training, health education, institution of care protocols, the definition of roles within the team. Always having as parameters to be followed, the systematization of nursing care, this form allows to express the autonomy of the nurse through the identification of roles within the team. The failures during the nursing care to patients in the postoperative period may be due to the lack of training, skill and attention of these professionals. These factors are indispensable in the daily life assistance practice.

Consequently, the lack of knowledge on the part of the nurses makes it difficult to act on the clinical judgment of the patient's responses to the patient's health status. Nonetheless, the more familiarity nurses have with the ND, the greater their ability, agility and accuracy in diagnosing, which will result in greater visibility for the profession.27

It was also observed in the present study that in the postoperative myocardial revascularization period, the nurse should intensify their vigilance, since this procedure can develop several complications, in different organs and systems of the human body, turning the NDs not only the physiological area, but also the other adjacent areas that interrelate to that organ.

Given the aforesaid, we suggest new researches that expand the focus on ND in the postoperative myocardial revascularization period as well as the ND that are present in the complications developed in this surgical stage, specifying such diagnoses for such procedure, thus facilitating the decision-making of the nurse according to the type of cardiac surgery.

REFERENCES


