Nursing care to patients in postoperative renal transplant

Cuidados de enfermagem ao paciente em pós-operatório de transplantе renal

Cuidados de enfermeria en el paciente de trasplante renal postoperatoria

Rosane da Silva Santana¹, Francisca Jéssica Abreu da Silva², Jancielle Silva Santos³, Camila de Araújo Batista², Cynthia Araújo Frota², Mauricio José Alencar Morais², Jessica Mayra do Nascimento Cabral²

¹Universidade Federal do Ceará, Graduate Department of Public Health. Fortaleza, Ceará, Brazil.
²Faculdade UNINASSAU, Nursing Department. Teresina, Piauí, Brazil.
³Faculdade UNIFSA, Nursing Department. Teresina, Piauí, Brazil.

ABSTRACT

Objective: To analyze the activities performed by nurses in the care of patients after kidney transplantation. Method: Descriptive qualitative study conducted at the High Complexity Hospital in Teresina-PI. Data collection took place in November and December 2017. Ten nurses participated in the research. It was made the content analysis of statements. Results: The main cares performed by nurses in the postoperative follow-up of renal transplantation were vital signs verification and medication administration. The findings of the study allow us to state that the educational process developed by nurses related to discharge guidelines was deficient. There was some disorganization in the guidelines, causing doubts about the necessary care after transplantation. Conclusion: The nurse who works with kidney transplant assumes a commitment to the well-being of the patient from the preoperative phase, with teaching, performing examinations and follow-up, until the postoperative evaluation.

Descriptors: Nursing Care; Kidney Transplantation; Critical Care.

RESUMO

Objetivo: Analisar as atividades desempenhadas pelo enfermeiro no cuidado ao paciente em pós-operatório de transplante renal. Método: Estudo qualitativo descritivo realizado no hospital de Alta Complexidade em Teresina-PI. A coleta dos dados ocorreu em novembro e dezembro de 2017. Participaram da pesquisa 10 enfermeiros. Trabalhou-se com análise de conteúdo dos depoimentos. Resultados: Os principais cuidados realizados pelos enfermeiros no acompanhamento do pós-operatório de transplante renal foram verificação de sinais vitais e administração de medicamentos. Os achados do estudo permitem afirmar que o processo educativo desenvolvido pelos enfermeiros relacionados às orientações de alta foi deficiente. Evidenciou-se certa desorganização nas orientações, causando dúvidas quanto aos cuidados necessários após o transplante. Conclusão: O enfermeiro que atua com transplantados reais assume um compromisso com o bem-estar do paciente desde a fase pré-operatória, com o ensino, a realização de exames e o acompanhamento, até à avaliação do quadro pós-cirúrgico.

Descritores: Cuidados de Enfermagem; Transplante de Rim; Cuidados Críticos.

RESUMÉN

Objetivo: analizar las actividades que realizan las enfermeras en el cuidado de los pacientes luego del trasplante renal. Método: estudio cualitativo descriptivo realizado en el Hospital de Alta Complejidad en Teresina-PI. La recopilación de datos tuvo lugar en noviembre y diciembre de 2017. Diez enfermeras participaron en la investigación. Trabajó con análisis de contenido de testimonios. Resultados: Los principales cuidados realizados por las enfermeras en el seguimiento postoperatorio del trasplante renal fueron la verificación de los signos vitales y la administración de medicamentos. Los resultados del estudio nos permiten afirmar que el proceso educativo desarrollado por las enfermeras en relación con las guías de alta fue deficiente. Hubo cierta desorganización en las pautas, lo que generó dudas sobre la atención necesaria después del trasplante. Conclusión: La enfermera que trabaja con trasplante de riñón asume un compromiso con el bienestar del paciente desde la fase preoperatoria, con enseñanza, realización de exámenes y seguimiento, hasta la evaluación postoperatoria.

Descriptores: Atención de enfermería; Trasplante de riñón; Cuidados Críticos.

How to cite:

Rev Pre Infec e Saúde. 2019;5:9064
INTRODUCTION

Chronic kidney disease (CKD) affects about 10% of the world's population in all age groups and ethnicities. The disease affects one in five men and one in four women aged 65 to 74 years and half of the population aged 75 and over suffers from some stage of CKD.1

The progressive and irreversible loss of regulatory, excretory and endocrine functionalities of the kidneys lead to the impairment of homeostasis in its most advanced phase. It is considered a heterogeneous syndrome, in which the etiology, pathological mechanism, rate of progression and severity vary among individuals.1-3

Patients with end-stage CKD have two treatment alternatives: renal replacement therapy (peritoneal dialysis or hemodialysis) or renal transplantation (RT). Transplantation is currently considered the best treatment choice for terminally ill patients.2-3

Rigorous patient evaluation is required to identify those who have full capacity to undergo surgery. Not every patient is indicated for such a procedure due to intense immunosuppressive pharmacological therapy, which in some cases may further weaken the subject with end-stage CKD. Substitutive therapy in these cases enables a better living condition for patients, when well oriented and performed.4

Despite the complexity of the procedure, both donor and recipient recovery are unlikely to have negative results. The number of complications in the immediate postoperative period observed in the existing literature is lower.5

Nursing care to postoperative patients

Given the complexity of the kidney transplantation process, the nurse's role is fundamental not only with the patient, but also with the family and the entire multidisciplinary team. These professionals should be aware of risk factors and all complication processes, both preoperatively and postoperatively, making nursing diagnoses and prescribing their care in the face of situations that may arise, intervening quickly and efficiently, through the planning of Nursing Care Systematization, implementing specific interventions and evaluating the evolution of each case.6

In the process of promoting improvements in the conduct of each care step in the postoperative period of RT, the multiprofessional team needs to strive to follow and enrich the care plan. In this aspect, the nurse is inserted as an indispensable member in the therapeutic process before and after kidney transplantation.7

Given the above, the objective of the present study was to analyze the activities performed by nurses in the care of patients after renal transplantation.

METHOD

This is a descriptive research with qualitative approach, developed in November and December 2017 in the Post-Anesthetic Recovery Room, Intensive Care Units and Nephrological Clinic of the Getúlio Vargas Hospital in the municipality of Teresina, Piauí state.

Sixteen nurses worked in the data collection sectors; however, after refusal to participate and adoption of the inclusion and exclusion criteria, 10 nurses who provided nursing care to patients who underwent kidney
transplantation participated in the study. The study included effective nurses who worked in the sectors for at least one year in the morning, afternoon and evening shifts. And excluding those who were on vacation, leave or vacancy during the data collection period.

For data collection, a questionnaire with open and closed questions was used. The first part of the instrument consisted of questions pertinent to the demographic characterization of the participants, including the variables gender, age, time since graduation, title and length of service in nephrology services. The second part consisted of three open guiding questions aimed at obtaining data pertinent to the actions of nurses in the postoperative period of kidney transplantation. Participating subjects received explanations about the objectives and procedures that were used in the research, detailing the methods used, the designs of the data that were collected, and the expected benefits of this participation.

All participants who agreed to participate in the survey received and signed the consent form. As a means of security to respondents, to maintain confidentiality and ensure the confidentiality of information, all respondents were identified with the letter E, and an Arabic numeral following interview accomplishments.

From the nurses’ consent, the time for the semi-structured interview was scheduled according to the availability of each participant. All interviews were recorded with the proper authorization of the participants through an MP4 device and later transcribed for analysis and discussion of the results found.

After transcription, the reports were organized into categories. Data analysis was developed using the content analysis technique, thematic modality. This analysis consists of three steps: pre-analysis, with the floating reading of the interviews in order to systematize the initial ideas; then, the exploration of the material, identifying the nuclei of meaning of the speeches with grouping of the ideas that were related; and finally the treatment of the data obtained.

The project was approved by the Ethics and Research Committee of Hospital Getúlio Vargas, with CAAE No. 74681517.0.0000.5613 and opinion No. 2.365.188. Each interview was conducted only after clarification of the research objectives and consent of the participant, by signing the Informed Consent Form.

RESULTS AND DISCUSSION
10 nurses participated in the survey, of which 80% were of the gender. Regarding age, 70% of respondents were aged between 20 and 39 years. Only 30% of the sample had specialization and none of the interviewees held a master's or doctor's degree. Regarding the period of activity of professionals in the sectors, 80% performed activities in the sectors studied for 5 or more years.

Data were analyzed and grouped into categories, which are presented below:

Category 1: Nursing Care Performed After Kidney Transplant
According to the testimonials below, it was evidenced that the care most mentioned by the participants concerns the reduction of the risk of infection during and after kidney transplantation.
“To ensure good surgery we use universal precaution, standard handwashing precaution and PPE [...].” (E1)

“We follow medical recommendations and try our best to control pain and risk of infection, rejection and basic care through hand washing [...].” (E6)

“We try our best to prevent infection by washing our hands before and after contact with the patient to avoid contamination [...].” (E3)

Nurses must perform their interventions from the pre-transplant phase, which includes physical, psychological, educational support and full control to ensure safe surgery without risks of contamination that can generate infections and injuries for both the patient and their families.8

The chances of contracting infection following surgical procedures is through cross-infection, in part because the staff providing assistance, especially with their hands, is the most important pathway for exogenous infections, given that the pathogen is introduced into a susceptible site. The complications resulting from these infections are almost always related to the incorrect practice of the procedures, both by the patient and the health professionals involved.9-11

After RT, the transplanted person is more vulnerable to infections, being more severe in these subjects due to their own fragile immune system after the procedure. One of the main complications after transplantation is precisely healthcare-related infection. The practice of hand hygiene by the care team before and after all contact with the transplanted patient is important in order to reduce the risk of contamination of the patient.12

Handwashing is the most effective method for preventing infection, but only E1 mentions the use of universal precautions. It is necessary to adopt risk preventive measures in order to contain the spread of pathogens that could further weaken the health of this transplanted subject.

In addition to the adoption of prophylactic measures against infections, nursing plays a relevant role in the evaluation, detection and early intervention in the appearance of signs and symptoms of such complication. Being the team that provides 24-hour assistance without interruption, Nursing is efficient in identifying fever, hyperemia, pain and secretion at the surgical wound site, asthenia and leukocytosis in the laboratory evaluation. In this overall assessment, it is essential for the entire team to know the patient’s past history, to assess the patient’s evolution, physical, psychological and therapeutic condition after RT.13

Other cautions that nurses mentioned concern hydroelectrolytic balance control, vital signs control, pain level assessment and care in the administration of prescription drugs, as shown in the statements below:

“[...] Care to the renal transplant patient, we keep the patient with a high head 40 °, we guide rest, we control vital signs and especially maintenance of diuresis, we maintain hydration with
Nursing care to postoperative patients

strict control of diuresis and volume replacement, we check blood glucose and we keep it with SVD at absolute rest, and administer schedule medication […]”. (E4)

“[…] Immediate care is important that we leave the patient isolated from other patients with communicable respiratory diseases, absolute bed rest, control electrolyte replacement, measure diuresis through vital signs […]”. (E7)

Nursing care should be performed according to the surgical time, especially during and after the TR. They should be monitored through hydroelectrolytic balance, pain control, restoration of gastrointestinal and renal functions, and care to prevent infection.¹⁴

The nurse should be an educator and self-care promoter, acting in the prevention of complications, and developing assistance with guidance on the necessary care for each case. This care should be performed through proposals for frequently raised postoperative Nursing diagnoses that are related to fluid and electrolyte control and monitoring, fall prevention, infection protection, post-anesthetic care, aspiration precautions, bed rest care, skin supervision, injury care, self-care assistance and temperature regulation.¹⁵

The reports of the deponents E4, E5, E7, E8 exposed a nursing care performed according to what the literature describes for the recovery of patients’ health. The idea of care is implicit in nursing, which is a science that uses care in technical and scientific evidence, respecting and guaranteeing the rights of patients.

“When the patient is in the immediate postoperative period after kidney transplantation, we pay attention to vital signs, control of diuresis, electrolyte replacement, level of consciousness, surgical wound, and signs of rejection […]”. (E2)

“[…] Hydroelectrolytic balance monitoring […] pain control and vital signs monitoring […]”. (E5)

“[…] We should pay attention to the level of pain, signs of anxiety, trembling, moaning and crying, we follow medical guidelines such as administration of prescription drugs, vital signs control, water balance […]”. (E8)

“[…] We follow medical recommendations and try our best to control pain and risk of infection, rejection and basic care […]”. (E9)

“[…] In the first hours we should pay attention to water balance, diuresis, bleeding, alteration of any vital sign, urinary function and pain control […]”. (E10)

Although pain is considered a fifth vital sign, this vital parameter was evidenced only in the statements of respondents E5, E8, E9 and E10, and it can be inferred that this vital sign does not follow an evaluation protocol in the routine of
Santana RS, et al.

these professionals who work directly in the patient care.

The report of E2, the only participant that mentioned the assessment of the level of consciousness as an important care to be performed by the nurse to the transplanted patient, drew attention. In this item we noticed the lack of standardization and implementation of Nursing Care Systematization, where each of the interviewees mentioned some care that they considered more important to perform, leaving aside the premise of the general craniocaudal physical examination as a way of assessing the health situation holistically, in order to obtain their real clinical status and, consequently, to elaborate an intervention plan according to what the transplanted individual presents.

Category 2: Nurse’s guidelines for kidney transplant patients at hospital discharge

There was a predominance of mentioning the medication item as an essential element to be oriented in post-discharge care according to the following statements:

“Guidance on the importance of immunosuppressive rejection medications, guiding to use individual masks and the importance of diet [...]”. (E1)

“Dietary Guidelines, Medication, Exercise and Infection Prevention [...]”. (E2)

“ [...] I think they should receive guidance on food, exercise, medication, infection prevention, care that should be

Nursing care to postoperative patients maintained with the surgical wound, hygiene, lifestyle habits, sun protection and return for evaluation [...]”. (E3)

“ [...] so the use of the mask is very important, restrict home visits by the risk of infections, correctly follow the prescribed diet that needs to be met carefully, so that in the end we have a favorable transplant, he/she needs to pay attention to vital signs at home, glycemia, and do not stop any medications on their own, if the patient thinks any medication is causing any adverse effects, he/she should report it to his nephrologist and talk about fever and abnormal pain after surgery. This is the main information that people give inside an ICU, for the patient to be discharged from 7 to 10 days.”. (E4)

“ [...] Follow dietary guidelines, medications, identify signs of rejection explained by nephrologist, and try to follow all recommendations without changing your old routine too much”. (E7)

The nurse should provide the patient and family members with the necessary information about patient care and clarify doubts requested by the family. It is a skilled and qualified professional who makes up the health team and who acts in care effectively and dynamically. The nurse remains in care 24 hours a day and makes the link between the multidisciplinary team and the patients.¹⁶

One of the most important elements performed in monitoring the kidney transplant is
the correct use of drug therapy. Immunosuppressive drugs are in continuous use and must be taken faithfully by the patient to prevent rejection or even to treat it.\textsuperscript{17}

The nurses’ concern to emphasize the importance of medicines was highlighted during the observations with all subjects, when it was possible to identify that there is a detailed explanation on this issue, always requiring patient feedback to be certified. correct understanding of the guidelines provided.

It was also evident in the E10 report the need for specific knowledge for guidance and the creation of a systematized care plan to be applied before hospital discharge:

“ [...] \textit{We did not perform discharge plans, but occasionally assisted patients who were critically ill or who had complications during hospitalization. And I don’t know how to answer you, but the immunosuppressed patient’s discharge plan must be followed, and at risk of infection and rejection of the new organ [...]” (E10)

Planning for patient discharge is an important part of their treatment and an essential aspect of patient care. The hospital discharge care plan should ensure continuity of care that had been initiated in the hospital setting. It is necessary that such care be performed continuously at home and in other living environments, in order to avoid readmission.

As there were no specific protocols related to health education to guide the professionals in the hospital under study, and little was mentioned about professional qualification, where only three of the interviewed professionals had specialization, it was noticed some deficiency in this phase of care.

According to the complexity of the case, the therapeutic form of RT, the demands on patient care are strict. The nurse and the team need to develop specific actions with quality, systematizing the necessary actions in the pre, intra and postoperative periods, constantly assessing the patient’s clinical status, as well as implementing and intervening in safety throughout the patient’s hospitalization period.\textsuperscript{18}

Hospital discharge is an important step that must be planned and passed on to the patient and family members according to the needs of the patient’s clinical case. It is considered essential in the Care Process, as it directs the action plan and the essential implementations for therapeutic and patient self-care at home.\textsuperscript{19}

Structured hospital discharge plans are tools used to increase self-care capacity, strengthen adherence to proposed treatment, reduce the frequency of unplanned hospitalizations, strengthen communication between patient and hospital, caring for patients in a resolute and humanized manner.\textsuperscript{4}

This assistance was not performed in its entirety and was demonstrated by the speech of E5, when reporting not having sufficient knowledge about the guidelines that should be passed on to promote post-discharge care of renal transplant patients.

Although E6 have mentioned in the speech that carried guidelines in detail, came the question of how detailed their guidelines would...
be, as this participant does not prescribe as exemplified their care to the family and the patient, with a vague and superficial reporting.

“[…] Well, this question I really can't answer, because our patients are usually no longer with us right now, but I think they should be given food advice [...]”. (E5)

“[…] At this stage, we have a detailed and calm conversation with the patient to clarify doubts and recommendations that I remember [...]”. (E6)

The guidelines for hospital discharge need to be inserted in the Nursing Process, since nurses have a fundamental role in identifying the needs of the patient and family. It is necessary that the health team, especially Nursing, should be mobilized in search of new teaching strategies to the user, making this care meet individual needs, aiming to ensure adequate therapy after discharge.20

At the time, it is relevant that the nurse assesses the user’s willingness, identify their interest in following the therapy for their self-care and report on user support networks. Carrying out discharge planning improves the flow of information for both the healthcare team and the health system as a whole. Thus, the organization and systematization of care, as well as the knowledge about the health network that the transplanted subject is inserted, favor the continuity of care, obtaining fast and efficient information.

CONCLUSION

The nurse who works with kidney transplant assumes a commitment to the well-being of the patient from the preoperative phase, with teaching, exams and follow-up, until the postoperative evaluation, and must provide rigorous care.

This study shows a certain deficiency regarding the patient's teaching about the care that they should take home after discharge. The nurse, as an assistant professional, should also masterfully perform the role of educator, using an accessible language in the transfer of the necessary guidelines for a good recovery of the transplanted individual, with encouragement to self-care. The findings of this investigation allow us to state that the educational process developed by nurses in the guidelines of discharge of the transplanted patient represents one of the supporting pillars for their adherence to the necessary care in this new stage of life and that when not done holistically, can directly affect the restoration of health.

It is hoped with this study to contribute to reflection in nurses who work in transplantation services about their practice, especially regarding their role in health education, and also serve as a subsidy for other studies that cover this theme.
REFERENCES

Santana RS, et al.

Nursing care to postoperative patients

http://dx.doi.org/10.2174/1874434601913010018

Submitted: 2019-06-29
Accepted: 2019-07-15
Published: 2019-11-01

COLLABORATIONS
All authors contributed substantially to the conception of the work; data collection, analysis and interpretation; in the writing of the article and in the final version to be published. All authors agree and are responsible for the content of this version of the manuscript to be published.
ACKNOWLEDGMENTS
We thank the hospital where the research was conducted and all participants.

AVAILABILITY OF DATA
Does not apply.

FUNDING SOURCE
Does not apply.

CONFLICTS OF INTEREST
There are no conflicts of interest to declare.

CORRESPONDENCE
Rosane da Silva Santana
Address: Rua Fotógrafo Costinha, 1880, Rua Fotógrafo Costinha, 1880, Teresina, Piauí, Brazil.
Telephone: +55 (86) 98846-0957
E-mail: rosane_santana5@hotmail.com