# The role of nurses in the face of dialysis chronic kidney disease in the intensive care unit

Papel do enfermeiro frente a doença renal crônica dialítica na unidade de terapia intensiva

# Papel de las enfermeras frente a la enfermedad renal de diálisis crónica en la unidad de cuidados intensivos

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#### RESUMO

Objetivo: Analisar o papel do enfermeiro no cuidado com pacientes com doença renal crônica dialítica na unidade de terapia intensiva. Método: Trata-se de um artigo de revisão integrativa realizado por meio da análise de 5 artigos científicos extraídos do google acadêmico, Portal da Biblioteca Virtual em Saúde (BVS), Revistas de Saúde, Scientific Eletronic Library OnLine (SciELO), Biblioteca Virtual em Saúde (BVSMS). Resultados: O enfermeiro é muito importante no desenvolvimento da qualidade de vida e no processo de enfrentamento da doença renal crônica, no tratamento de hemodiálise, é a pessoa que mais tem contato com o paciente antes, durante e após a diálise. Uma vez que a vida do paciente pode depender de muitas dessas medidas, o enfermeiro deve permanecer vigilante para detectar possíveis complicações durante a diálise e tomar as medidas adequadas de forma rápida. Considerações finais: A importância desta pesquisa é buscar o melhor atendimento para os pacientes com a doença renal crônica, destacando que o paciente deve estar consciente da sua enfermidade e do seu tratamento, as formas de terapia renal, dieta, restrição hídrica, uso de medicamentos, controle da pressão arterial e da glicemia. O enfermeiro orienta para amenizar o impacto e o estress, minimizando alguma ocorrência inesperada do tratamento.

Descritores: Enfermagem; Doença renal crônica; Unidade de Terapia Intensiva.

#### ABSTRACT

Objective: To analyze the role of nurses in caring for patients with dialysis chronic kidney disease in the intensive care unit. Method: This is an integrative review article carried out through the analysis of 5 scientific articles extracted from google academic, Portal of the Virtual Health Library (VHL), Health Journals, Scientific Electronic Electronic Library OnLine (SciELO), Virtual Library in Health (BVSMS). Results: The nurse is very important in the development of quality of life and in the process of coping with chronic kidney disease, in the treatment of hemodialysis, he is the person who has the most contact with the patient before, during and after dialysis. Since the patient's life can depend on many of these measures, the nurse must remain vigilant to detect possible complications during dialysis and take the appropriate measures quickly. Final considerations: The importance of this research is to seek the best care for patients with chronic kidney disease, highlighting that the patient must be aware of his illness and treatment, the forms of renal therapy, diet, water restriction, use of medications, blood pressure and blood glucose control. The nurse guides to mitigate the impact and stress, minimizing any unexpected occurrence of the treatment.

Descriptors: Nursing; Chronic kidney disease; Intensive care unit.

#### RESUMEN

Objetivo: Analizar el papel de las enfermeras en el cuidado de pacientes con enfermedad renal de diálisis crónica en la unidad de cuidados intensivos. Método: Este es un artículo de revisión integradora realizado a través del análisis de 5 artículos científicos extraídos del google académico, Portal de la Biblioteca Virtual de Salud (VHL), Revistas de Salud, Biblioteca Electrónica Científica OnLine (SciELO), Biblioteca virtual de salud (BVSMS). Resultados: Las enfermeras son muy importantes en el desarrollo de la calidad de vida y en el proceso de hacer frente a la enfermedad renal crónica, en el tratamiento de la hemodiálisis, es la persona que tiene más contacto con el paciente antes, durante y después de la diálisis. Dado que la vida del paciente puede depender de muchas de estas medidas, las enfermeras deben permanecer vigilantes para detectar posibles complicaciones durante la diálisis y tomar las medidas adecuadas rápidamente. Consideraciones finales: La importancia de esta investigación es buscar la mejor atención para los pacientes con enfermedad renal crónica, haciendo hincapié en que el paciente debe ser consciente de su enfermedad y tratamiento, las formas de terapia renal, dieta, restricción del agua, uso de medicamentos, presión arterial y control de la glucosa en sangre. La enfermera aconseja mitigar el impacto y el estrés, minimizando alguna ocurrencia inesperada de tratamiento.

Descriptores: Enfermería; Enfermedad renal crónica; Unidad de Cuidados Intensivos.

# Introduction

Nursing occupies an important position in direct care to patients, because its activities are directly related to it. Systematization and help can greatly interfere in the quality of care for patients with chronic dialysis kidney disease. In view of the highly specialized and complex care developed by nurses in the hospital, the intensive care unit, the systematization and organization of their work, therefore, in the work of the nursing team, they seek efficient and effective quality care.<sup>1</sup>

Given the high incidence of chronic kidney disease and the high mortality associated with it, it seems to be a major public health problem in Brazil. Its evolution is considered gradual and there is no rapid improvement in prognosis, and its consequences have greatly changed people's lives.<sup>2</sup>

Chronic kidney disease usually remains silent, which can cause major changes in personal life and, depending on the stage, hospitalization is required for clinical or surgical treatment, which requires nursing time.<sup>3</sup>

Chronic diseases have attracted more attention from health professionals, morbidity and mortality are high, so the main concern in the field of public health. In several chronic diseases affecting the population, chronic renal failure (CIS) is considered to be that there is no expectation of cure, rapid and progressive development, triggering various patient reactions endangering quality of life.<sup>4-5</sup>

Hemodialysis is the most rigorous physiotherapy selected in this study. It filters blood through arteriovenous access to compensate for kidney function. Arteriovenous access connects the patient to a computer that can monitor and eliminate excess salt, water and toxins in external forms.

According to the doctor's prescription, people may need to spend several years on hemodialysis and need to go to the hospital two or twice a week to the hospital or specialized clinic for two to four hours. In addition, drug management and strict maintenance of the diet are necessary. Because it is long-term, the treatment will cause a number of injuries, damage to physical and psychological aspects, and its impact will affect all aspects of life, including family, society and work.<sup>2-6</sup>

Therefore, people undergoing hemodialysis should seek to overcome the difficulties inherent to the disease, so they should resort to coping strategies or methods, that is, behavioral and cognitive skills used to control the needs caused by the internal and external environment. This will make it possible to deal with stressful events and control, reduce or eliminate emotional reactions. Among these techniques, we emphasize family support, attachment to religion or belief, denial, avoidance and resilience. In view of this situation, nursing professionals consider themselves an essential part of the process of improving quality of life and care for patients on hemodialysis. Interventions such as health guidance, family empowerment and nursing supervision demonstrate the importance of nurses' actions in this situation.<sup>7</sup>

In the face of the above, the fundamental question of this study is: How can nursing care management mediate the process of patients treating hemodialysis with chronic kidney disease?

The aim of this study is to analyze the role of nurses in the care of patients with chronic dialysis kidney disease in the intensive care unit.

## Method

This is an integrative review, carried out through a bibliographic survey referring to the role of nurses in the face of dialectical chronic kidney disease in the intensive care unit.

For the construction of the integrative review, six distinct stages were: the identification of the theme and the northern question; establishing criteria for inclusion and exclusion of studies/sampling; definition of the information to be extracted from the selected studies/ categorization of the studies; evaluation of the included studies; interpretation of the results; and presentation of the review/synthesis of knowledge. For the survey of the scientific articles of the study, searches were carried out in the academic Goole, Portal of the Virtual Health Library (VHL), Health Journals, Scientific Electronic Library OnLine (SciELO), Virtual Health Library (BVSMS). The descriptors used were: Nursing, Chronic kidney disease; Intensive Care Unit.

We observed through the material studied the extent and complexity of the problem inherent to chronic diseases, stimulating the analysis of the quality of life sick. Twenty articles were found and after the inclusion and exclusion criteria were applied, 5 articles were selected. The criteria taken into account for inclusion were: articles directly related to nursing care in patients with chronic kidney disease in the intensive care unit, chronic renal failure (CR), hemodialysis, year of publication of the article with time between 2013 and 2019.

**Chart 1-** On the main reasons for chronic kidney disease.

Study	Author	Title	Objective	Results	Conclusions
1	Trepichio et al.	Profile of patients and nursing workload in the nephrology unit	Describe the profile of hospitalized patients and measure the nursing workload.	Chronic Kidney Disease Main causes of hospitalization in patients undergoing hemodialysis	The main reasons for hospitalization were critical hypertension, unexplained fever, melena, gastrointestinal bleeding, and congestive heart failure.

2	Costa et al.	Quality of life of patients with chronic renal failure undergoing to hemodialysis	Evaluate the quality of life of patients with chronic kidney disease.	Chronic Renal Failure (CRF)	To date, progress has been made in technology and treatment, the goal is to improve the clinical condition of patients with CKD and increase their survival rate, their quality of life continues to decrease
3	Cruz et al.	The maintenance of working life by chronic renal patients undergoing hemodialysis treatment: an analysis of the meanings of the study	Understand how hemodialysis happens.	Hemodialysis	Hemodialysis for patients with chronic kidney disease is a painful form and physical and psychological restrictions imposed.
4	Xavier et al.	In the current of life: the discovery of chronic kidney disease	Understand what form hemodialysis treatment affects the patient.	Hemodialysis treatment	Hemodialysis treatment causes some changes, in addition to physical limitations, also brings a variety of feelings has obvious effects on psychological and emotional aspects.
5	Pires et al.	The role of nursing in the care of patients undergoing hemodialysis	Analyze the role of nursing in the care of patients undergoing hemodialysis	Nursing care	It is important that nurses attend the hemodialysis meeting to coordinate the team and determine the special needs of each patient.

The studies analyzed portray chronic kidney disease characterized by insufficient functions, such as waste filtration, water regulation and other chemical elements and hormone production, chronic diseases have attracted more attention from health professionals, has been the main concern in the field of public health, whose main treatment is dialysis. This disease exists in many people, progressive and irreversible evolution, bringing complications and injuries to patients.

The articles studied show that hemodialysis is considered synonymous with life support, because one of the important functions it performs is a blood filtration system of toxic waste not suitable for the human body. Hemodialysis is a painful treatment that does not take long and that causes various changes and impact on the person's life. We can understand that these treatments can affect or hinder work and leisure activities. Nursing care related to diet, medications are the basis for treatment success. Treatment can trigger various conditions in patients damage to various aspects related to health.<sup>8</sup>

In the articles we noticed that the interdisciplinary team, especially the nurse, nursing professionals have a fundamental role in the treatment of these patients, talking to the patient and the family, due to the long coexistence. Nurses must have technical and scientific knowledge, are basic elements of the dynamics of work care for kidney disease. First, the nursing process is the essence of caring, by understanding the importance of relationships, the sensitivity of listening and welcoming, establishing the necessary connection with the treatment of hemodialysis patients.<sup>9</sup>

In the specific case of the department of clinical hemodialysis, it is necessary that nursing deepens, is perfected, and constantly updated in this area, especially to maintain the quality of life of the patient. The nurse should be present at the hemodialysis session to supervise the team and determine the specific needs of each patient. Having knowledge about the function of hemodialysis, is essential for the patient to adapt and be calm about the hemodialysis process, increasing the success of treatment. The nurse guides and provides guidance on the therapeutic plan, with technical and psychological aspects.<sup>10</sup>

We can mention that the care provided by nurses involves checking the functioning of the hemodialysis machine, preventing infection during the operation and checking vital signs for signs of discomfort for the patient. Nursing technicians can perform their activities 48 hours/week, and nurses 30 to 36 hours/weeks. Therefore, the role of nurses is as an educator who teaches, cares and facilitates the patient's life, which requires special skills and experience to understand the feelings expressed by the patient at the time of the hemodynamic session.<sup>10</sup>

The way the diagnosis of chronic kidney disease is transmitted, the impact generated by the knowledge of the loss of function of an important organ, without the time necessary to absorb more information about the disease greatly affect the emotional and psychological aspects of the patient, who will often have difficulties and understand the information, treatments and procedures related to the disease, with the concern of dying. In this aspect, communication between the nurse and the patient is essential with the guidelines, promoting a successful patient's treatment, alleviating the disease-related anxieties.<sup>11</sup>

Therefore, it can be emphasized nursing professionals in the intensive care unit sector regarding the care provided and the care and education to patients with chronic kidney disease, the objective is considering the high level of service, obtain qualified care in the service complexity and dependence of hemodialysis treatment.

The main focus of nursing is to care for and help patients, and these go beyond technical procedures and need to establish a client-professional relationship to understand the greater needs of patients who ensure human work are related to care. In response to this situation, the nursing professional is an essential part to improve the quality of life, coping process of patients on hemodialysis. Interventions on health, family autonomy and nursing supervision prove the importance of nurses' actions in this context.

## **Final Considerations**

In this study we understand that chronic kidney disease (CKD) is a metabolic syndrome, caused by progressive loss of glomerular filtration, decreased excretion of toxins and homeotase, which causes hydrolysis, acidobasic and hemodynamic imbalance. The number of people affected by CKD has been increasing year by year, leading to an increase in the number of hospitalizations.

Thus consequences of chronic kidney disease and hemodialysis are undeniable in the lives of patients, cause profound and extensive changes daily. Given this reality, the family plays a major role in the care and monitoring of the patient's daily life together with the nursing team of the intensive care unit. The work of a nurse should be based on the decision-making capacity to ensure effective results without wasting resources, having the capacity to evaluate, systematize and decision-making for more appropriate conduct, highlighting the responsibility and knowledge in dealing with treatment and the patient.

In a moment, this research is important because it provides subsidies, raise awareness among the team responsible for hemodialysis treatment, assesses the needs and importance of the patient's quality of life, in hemodialysis and providing them with optimized methods of this form of treatment.

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