

## ABSTRACT

Chronic renal failure is often asymptomatic and painless. Many sick people realize too late that something is happening with their body or kidney function. In renal failure, a complex metabolic disorder arises and water and electrolyte imbalances occur. Unfortunately, this phenomenon is irreversible and a large number of patients must subsequently undergo hemodialysis treatment, which only substitutes kidney work, but does not heal the kidneys themselves. Hemodialysis is currently one of the most widespread methods of renal replacement. Thanks to continuous technological development, it extends the life of patients by several decades and thus improves their lives with chronic kidney disease.

The bachelor thesis describes the issue of nursing care of patients included in the hemodialysis program. In the theoretical part of the thesis I describe the issue of chronic renal insufficiency. Furthermore, I focus on the elimination methods of this disease and the necessary vascular approaches for hemodialysis for these patients. In my work I also describe the specifics of nursing care for patients in the hemodialysis program. I have elaborated the thesis on the basis of searching for relevant sources for the given issue. I drew on resources from the National Medical Library, where literature searches were made, through Medline, PubMed, Embase, and Web of Science. I also drew on information from the EDTNA / ERCA international nurses organization - the European Nurses Association & the European Renal Care Association, health documentation and national nursing standards. I have obtained permission to view and use medical documentation from a senior doctor and head nurse. In addition, I have received approval from the Deputy for Non-Medical Medical Professionals of a particular medical facility. *I was granted permission by a written request.* I obtained the patient's consent in oral and written form.

**Methodology:** For my bachelor thesis I chose a form of qualitative research, a case study. In a particular patient, I focused on standard nursing procedures, as well as the potential risks that might arise from hemodialysis treatment.

**Aim of this thesis:** To elaborate a case study in a theoretical framework for a patient in hemodialysis treatment.

**Results:** Adherence to recommended processes for hemodialysis treatment. Instructing patient from the nurse to follow the treatment and preventive provisions together with a simple educational material for the home.

**Conclusion:** In nephrology it is necessary to reflect the latest trends of new research and recommendations, as treatment and technological equipment providing hemodialysis treatment is still being innovated. In providing nursing care for these patients, not only skill but also theoretical knowledge is important. It is thanks to them that the nursing staff is able to adequately educate patients and thus avoid unnecessary complications.

**Contributions:** Creation of a simple educational material for patients in the hemodialysis program after studying the recommendations of the international organization of nurses EDTNA / ERCA - European Dialysis and Transplant Nurses Association and European Renal Care Association and the national organization CAS - the Czech Nurses Association, which has developed the National Nursing Standard for Nephrology nursing practice.

**Key words:** hemodialysis, nurse, nursing process, patient, education, renal failure