

Review

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Member of a scientific jury appointed by Order of the Rector of MU-Varna
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Subject: "Level of awareness of patients with chronic kidney disease regarding kidney transplantation and importance of awareness in the choice of renal replacement therapy"

Dr. Aleksandar Aleksandrov Petrov was born on July 8, 1990. He graduated from the First Language High School - Varna with a degree in German in 2009, and in 2015 - MU - Varna.

He successfully passed the exam for the specialty in July 2020

Professional Development:

- from 2015 to the present - University Hospital "St. Marina" - Varna, Clinic of Nephrology, Dialysis and Transplantation, Nephrologist.

Academic development:

- since 2016 - assistant

Publications related to scientific work: 3 pcs.

Reports: 1. Abroad: no.

Member of professional organizations: Bulgarian society of nephrology

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The submitted work considers one of the important and current problems in the field of nephrology, i.e. the problem of chronic kidney disease (CKD). According to the international classification KDIGO (Kidney Disease Improving Global Outcomes), CKD is defined as "disorders of renal structure or function present for more than three months that affect health." The problem of CKD is a major, socially significant one, affecting society on a global scale.

The challenge for professionals is its frequency. According to the WHO, the incidence of CKD worldwide is estimated at 13.4 / 11.7 to 15.1 /%, and the number of patients who have reached end-stage renal disease is between 4.9 and 7.08 million. The statistics are frightening and show that by 2010 there were 928 registered deaths as a result of CKD and 14,754,000 with permanent health impairments, which puts kidney disease in sixth place in the statistics on the etiology of mortality globally. In Bulgaria, statistics show that the incidence of CKD is 12.8%, i.e. every 8th person or about 700 to 750 thousand people, 90% of them with advanced kidney disease, and about 3,800 are patients with hemodialysis. The increasing frequency of CKD is also associated with the frequency of risk factors that determine it. What matters is the value of the hemodialysis (acute and chronic), mortality from acute heart disease, mortality from heart attacks, which is more common among patients with end-stage renal disease. To prolong the life of a kidney patient who has reached the terminal stage of the disease, three options are needed: lifelong hemodialysis, peritoneal dialysis or kidney transplantation. The best method of kidney replacement therapy is kidney transplantation.

It is necessary to build a good health culture and awareness, which is achieved through training of patients with CKD and especially candidate recipients. The analysis shows that the health literacy of the

population is extremely low. It is extremely important to keep patients informed about kidney transplantation on the overall threat of the disease, to improve the dialogue between patient and doctor and to increase confidence in the implementation of this extremely important method for the treatment of CKD.

The dissertation has set a precise and clear goal: to study the level of awareness of patients with CKD regarding kidney transplantation and the importance of awareness in the choice of renal replacement therapy.

The following tasks are defined: assessment of the level of awareness regarding CKD, regarding kidney transplantation, regarding hemodialysis / chronic and peritoneal /. The fifth task is extremely valuable, which includes the development of a management plan for patients with CKD and the treatment methods on the basis of which the patient can make his choice. The study covers 126 respondents, who are divided into 4 groups: healthy controls / 37 /, persons in pre-dialysis stage / 20 /, persons undergoing replacement therapy / chronic and peritoneal dialysis - 47 /, persons with transplanted kidney / 22 pcs./. Inclusion criteria were met: age over 18 years, clinically healthy for the control group, diagnosed with CKD, persons undergoing kidney transplant replacement therapy, persons who signed informed consent. The methodology of the study was followed, using a documentary method: study of published studies and data on CKD, kidney transplantation and patient awareness, historical method / main reason for use is to justify the importance of the study /, sociological methods / completion of specially created questionnaire /, statistical methods: analysis of variance, variation analysis, correlation analysis, regression analysis, comparative analysis, as well as evaluation of the questionnaire used. Data were statistically processed by: SPSS v.20.

In order to analyze the obtained results, the first step of conducting the current study is extremely important: creating an appropriate survey tool to measure the current level of awareness among the selected population. The model that is most suitable for the current research work - The Rotterdam Renal Replacement Knowledge-Test (R3K-T) was chosen.

The analysis of the level of awareness regarding CKD found low knowledge of the respondents regarding some key symptoms and syndromes in the manifestation of kidney disease. Salt is known to be linked to the development of CKD, but at the same time it does not pay attention to obesity, diabetes, smoking, systemic painkillers and alcohol. An interesting pattern is the relationship between pain and the presence of CKD among respondents. Some of the interviewed hemodialysis patients answered positively to the question that the cause that led to terminal kidney disease was kidney stone disease, chronic tubular-interstitial nephritis.

The level of awareness of patients regarding kidney transplantation was studied. A high rate of uncertainty has been found, both among healthy individuals and among patients with stage I-IV CKD. People with higher education are most aware that donating a kidney does not lead to loss of kidney function. Omissions have been identified in the part of the survey concerning the legal aspect of kidney transplantation. 55% of the transplant recipients are legally aware that kidney transplantation in Bulgaria is allowed in case of kinship between donor and recipient up to the first line / first cousin / or between spouses with at least 3 years of legal relationship. Among transplant patients there are those who are not familiar with the legal system in Bulgaria regarding organ transplantation. The analysis of the results obtained in patients with kidney transplantation shows the need to create a strategy to raise patient awareness about its implementation. Patients with impending transplantation need to be aware of the impact of risk factors such as: smoking, alcohol, salty foods, overweight weight, and overuse of medication.

The most valuable thing in the present work is the development of a guide for patients with CKD and methods of treatment on the basis of which the patient can make his informed choice. The main goal of the guide is to improve the health of patients and improve their quality of life by reducing complications and disability, as well as increasing the duration of the pre-dialysis stage and survival in general. The basis of this guide emphasizes the need for an integrated multidisciplinary approach, which should include the implementation of health activities, prevention, implementation of intervention modules and reducing risk factors in all age and occupational groups.

An algorithm for prevention, diagnosis, treatment and follow-up of patients with CKD has been developed.

The conclusions made in the proposed doctoral program are extremely valuable. They prove the difference in the levels of awareness of the studied levels regarding CKD according to the educational level and the conducted treatment and show that the most informed are the persons with higher education and kidney transplantation. Most of the respondents do not have a real assessment of the influence of risk factors. The level of awareness regarding the legislation of the Republic of Bulgaria regarding donation is low. The patients who are about to have a kidney transplant are the best acquainted with the procedure for kidney donation and transplantation. The majority of patients cannot distinguish between hemodialysis and peritoneal dialysis. The role of kidney transplantation in improving the quality of life is emphasized. Theoretical contributions are extremely important, which show a detailed analysis of the nature and role of CKD in relation to public health and the burden it brings to patients and the health system. A detailed review of the literature data on the literacy of the population, risk factors and the types of treatment used has been made.

The depths of the dissertation's knowledge and the in-depth study are the basis of the practical contributions. They show the gaps and misconceptions regarding the awareness and health knowledge of the researchers about the nature of CKD, the treatment provided the risk factors and the change in the quality of life.


The most valuable thing in this dissertation is the developed and proposed algorithm for preparing a guide for prevention, diagnosis, treatment and follow-up of patients with CKD. Introducing them to the methods of treating CKD is the most important weapon for overcoming fear and insecurity. This leads to the right choice, which is based on scientific, theoretical knowledge and allows every patient suffering from CKD to come out of the shadows of darkness and look with hope to the future.

The paper contains 145 pages, of which:

- Literary review - 33 pages;
- Purpose, tasks, material, methods, own results, main conclusions, contributions - 77 pages;
- Applications - 10 pages;
- Literature - contains 233 literary sources, of which 222 by foreign authors.

Conclusion: The presented scientific work of Dr. Aleksandar Aleksandrov Petrov shows his in-depth knowledge and experience in patients with CKD. It addresses one of the leading problems of patient awareness. Serious steps have been taken from theory to practice, which enable patients with CKD to make the right choice of kidney replacement therapy. "

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