



## Studying the Perspective of the Development of the Hemodialysis Service in the Republic of Uzbekistan

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Timely and full provision of all patients suffering from chronic renal failure with hemodialysis procedures is one of the priority areas for reforming the healthcare system in Uzbekistan. To date, hemodialysis services have been organized in the Republican Scientific Center for Emergency Medical Care and in all its regional branches, in regional diversified medical centers, as well as in a number of institutions of the capital, the largest of which is the Tashkent Nephrology Center. According to the literature and the results of the analysis, there are difficulties associated with full coverage and provision of hemodialysis for all patients in this category. This is primarily due to the shortage or breakdown of existing hemodialysis equipment and their components in medical institutions of the republic, which in turn prevents the timely and full completion of the hemodialysis procedure for people in need, as well as the emergence of constant queues for this type of medical care. Today, every tenth person in the world suffers from kidney diseases, of which those suffering from chronic renal failure, it is vital to take 3-4 hemodialysis sessions per week for life, each of which lasts 4-5 hours. Modern data suggest that each well-conducted hemodialysis procedure contributes to the achievement of blood purification from urea by at least 65%, therefore, regular use of dialysis can significantly increase the life expectancy of patients. Additional factors hindering the full functioning of this type of medical activity are the absence in the healthcare system of the structure of separate children's departments (the contingent of children suffering from chronic renal failure is 5-10% of the total number of patients), as well as private medical organizations for hemodialysis. The Ministry of Health does not object to licensing private hemodialysis clinics.

However, experts note the presence of other factors hindering the implementation of this initiative.

In particular, the possible unprofitability of this service, since under current conditions each procedure for a patient will cost at least \$40, which will definitely contribute to the emergence of additional difficulties associated with the formation of the necessary demand for this form of service. In accordance with current legislation, the costs of ensuring the supply of equipment, as well as the purchase of dialyzers (filters) and other components, repair of devices, etc., should be covered by the state budget. A more optimal solution to this problem, apparently, would be to attract funds from the compulsory medical insurance fund. At the moment, out of 326 units. more than 50 hemodialysis equipments are non-working due to the lack or untimely provision of their spare parts: dialyzers, needles, filters for water purification. The main consumables of hemodialysis are dialyzers, in which the main element of hemodialysis is a filtration membrane. Every year, approximately 70 thousand units are used in the medical institutions of the republic during hemodialysis procedures. dialyzers. At the same time, according to international standards, in order to eliminate the threat of infection with infectious and some other types of diseases, it is strictly recommended that they be used once. Dialyzers are annually purchased from such countries as Germany, China, Japan, Russia and Belarus for an average total of 3.5-4.0 million US dollars. The cost of purchased filters from suppliers is from 40 to 110 US dollars per unit of the kit. The price of this product, where its production is established, for example, in the Russian Federation, is about 7 dollars, and in the USA and Germany

- 10 dollars. According to preliminary calculations, even if they were imported directly centrally, the total amount would be significantly lower than what they are currently purchased from suppliers. In this regard, taking into account the noted factors, experts believe that the organization of local production of these goods would increase their availability at affordable prices not only for institutions, but also for the population. This will also ensure the uninterrupted and timely functioning of the operated hemodialysis machines and significantly increase the possibility of full coverage of all patients. With a greater degree of probability, it can be assumed that if appropriate measures are not taken, the current trend will continue in the future, which will negatively affect the quality and ability of medical institutions to provide this type of medical care to the population in a timely manner.

Taking into account the noted factors during 2018-2019 efforts have been made to improve the quality of medical care for people suffering from nephrological diseases. A significant event in this direction was the Decree of the President of the Republic of Uzbekistan "On measures to improve the efficiency of providing nephrological and hemodialysis care to the population of the Republic of Uzbekistan" dated July 12, 2018 No. PD-3846.

1. The Decree of the President of the Republic of Uzbekistan defines the main tasks and activities of the Ministry of Health and its territorial divisions in order to further improve nephrological and hemodialysis care to the population:
2. Organization of systematic medical examinations of the population in primary health care institutions with the participation of leading specialists from republican specialized scientific and practical medical centers.
3. Повышение качества нефрологической медицинской помощи населению на областном и районном уровнях системы здравоохранения.
4. Reduction of morbidity and mortality from nephrological diseases by improving prevention, timely detection, treatment and rehabilitation of patients.
5. Revision and optimization of the process of diagnosis, selection and referral of patients for hemodialysis in accordance with international practice.

Implementation of unified clinical guidelines and standards for the prevention, diagnosis and treatment of renal diseases in adults and children at all stages of the organization of medical care, as well as clinical guidelines for hemodialysis sessions.

- Strengthening the material and technical base of nephrological and hemodialysis institutions, equipping them with modern high-tech diagnostic and medical medical equipment, uninterrupted provision of spare parts and consumables for hemodialysis.
- Creation of an effective system of training, retraining and advanced training of personnel in early prevention, timely detection and treatment of nephrological diseases.

Accelerated development of the private sector and public-private partnerships in the provision of nephrology and hemodialysis care to the population. One of the important issues that received a positive decision by the Decree of the President of the Republic of Uzbekistan is the formation of the Republican Specialized Scientific and Practical Medical Center for Nephrology and Kidney Transplantation on the basis of the Tashkent City Nephrological Hospital, as well as the creation of the Department of Nephrology, Hemodialysis and Kidney Transplantation at the Tashkent Institute for Postgraduate Medical Education on the basis of the newly created Republican Specialized Scientific and Practical Medical Center for Nephrology and Kidney Transplantation. The departments of nephrology and hemodialysis of regional medical organizations of the Ministry of Health received the status of organizational and methodological units of the Republican Specialized Scientific and Practical Medical Center for Nephrology and Kidney Transplantation. The system for issuing permits for the supply of hemodialysis machines and consumables, the provision of hemodialysis services by private medical organizations has been revised. The accessibility of specialized nephrological care to the population is expanding through the gradual organization of

specialized units in the structure of district and city medical associations. Serious attention is paid to the training, retraining and advanced training of specialists in the republic and abroad, as well as inviting specialists from leading foreign medical centers and clinics. A special place is given to strengthening the personnel potential of the Republican Specialized Scientific and Practical Center by training annually 30 specialists in nephrology, transpantology and hemodialysis, as well as improving the skills of 10 specialists of the center and its regional departments on the basis of a bilateral cooperation agreement with foreign centers and clinics. A number of international seminars, trainings and master classes on nephrology, hemodialysis and kidney transplantation are expected to be organized in 2020 with the involvement of leading experts from foreign countries. A lot of places in them are given to the introduction of modern high-tech and minimally invasive laparoscopic methods of surgical interventions into the clinical practice of the Republican Specialized Center for Nephrology and Kidney Transplantation.

### Literature

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