



Congress Abstract

Nephrology Registry as a Tool for Identification and Follow-Up of Patients with Chronic Kidney Disease

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ABSTRACT

Introduction: Effective follow-up of patients with kidney disease requires systematic patient registration, monitoring of kidney function, assessment of disease progression risk, and timely referral. Proper organization of medical information and reducing the risk of human error are also important. There are no published data on a functioning chronic kidney disease registry at the primary health care level in Kazakhstan. This study presents the experience of implementing a nephrology registry in Viamedis LLP city polyclinics.

Aim: To develop and implement a nephrology registry at the PHC level for data management, active identification of kidney function abnormalities, risk assessment, and improvement of patient follow-up.

Materials and Methods: The registry was developed according to current regulations of the MHRK, including Order No. 149. It includes data from the population registered at four large city polyclinics of Viamedis LLP. The registry includes patients already under follow-up and patients actively identified based on available laboratory data. For patients with previous serum creatinine results, estimated glomerular filtration rate is automatically calculated using the CKD-EPI equation and classified according to eGFR categories. The registry also includes the 4-variable Kidney Failure Risk Equation to estimate the individual 2- and 5-year risk of kidney failure. Data on eGFR, urine albumin-to-creatinine ratio, medication availability, and sodium-glucose cotransporter-2 inhibitor therapy are also recorded.

Results and Discussion: At the time of analysis, 3036 patients were under follow-up. During one month, the registry additionally identified 3051 patients outside the existing follow-up register based on previous serum creatinine results. 1462 patients (47,9%) had eGFR<60 ml. This shows a large potential for active identification of previously unregistered kidney function abnormalities and possible undiagnosed CKD requiring further confirmation and follow-up. KFRE-4 was used to assess the risk of kidney failure. Based on the 2-year risk calculation, 91 patients were identified, while 176 patients were identified using the 5-year risk calculation. These patients may require closer monitoring and timely referral to a nephrologist. The active identification results were obtained over one month. If these results are conditionally extrapolated to one year, the potential number of identified patients may increase substantially, highlighting the value of the registry as a tool for active kidney disease detection. The registry also included ACR results: 12861-A1, 1777-A2, and 67-A3 results. This allows albuminuria to be monitored over time and supports additional risk assessment. The integration of kidney function, ACR, laboratory monitoring, medication availability, and SGLT2 inhibitor therapy provided a more complete assessment of nephrology workload. Nephrology nurses supported data updating and patient follow-up, improving registry completeness.

Conclusion: The nephrology registry at the PHC level allowed a shift from monitoring only known patients to active identification of previously unregistered kidney function abnormalities. Automated CKD-EPI calculation, ACR assessment, and KFRE-4 support risk stratification and timely referral. Integration of clinical, laboratory, and treatment data improves structured follow-up and provides a more objective assessment of nephrology workload. The registry provides a basis for a proactive approach to kidney disease management at the PHC level.

Keywords: CKD Registry