



## The Role of the Family Doctor in the Prevention of Kidney Diseases in the Population in the Management of the Primary Care System

Rasulova Nilufar <sup>1</sup>, Aminova Asalya <sup>2</sup>

<sup>1</sup> Professor of the Department of Public Health, Healthcare Management of the Tashkent Pediatric medical institute (Uzbekistan)

<sup>2</sup> 4th year students of the Medical and Pedagogical faculty of the Tashkent Pediatric medical institute (Uzbekistan)

**Abstract:** The increase in the number of cases of obesity, diabetes and hypertension, along with the aging of the population, lead to a sharp increase in the prevalence of chronic kidney disease (CKD). Despite this increase, most Americans with early-stage CKD are still unaware of their disease. Primary care physicians are at the forefront of efforts to detect CKD early and manage patients to control its progression. Patients with CKD should be referred to nephrologists no later than the moment when their estimated glomerular filtration rate reaches 30 ml/minute. Nephrological examination at this stage is important to facilitate timely preparation for the treatment of end-stage renal failure by preventive transplantation or planned transition to dialysis. In addition to strict control of concomitant hypertension and/or diabetes, mineral metabolism indicators (serum parathyroid hormone, phosphorus, calcium and bicarbonate) should be carefully monitored in patients with progressive CKD, to avoid adverse effects on the cardiovascular and bone systems.

**Keywords:** chronic kidney disease; estimated glomerular filtration rate; diabetes; hypertension; chronic kidney disease mineral and bone disorder.

**Introduction:** With the steady increase in obesity and subsequent diabetes, more and more people are at risk of impaired kidney function. In addition, despite greater awareness of hypertension and diabetes as risk factors for CKD, they also remain problems affecting a wide segment of the population. There is extensive potential to improve outcomes in patients with CKD with appropriate treatment of both CKD progression and drugs for the treatment of end-stage renal failure (ESRD). The Primary Care Physician (PHP) is responsible for coordinating treatment with various specialists (for example, nephrologists, diabetologists/endocrinologists and cardiologists) involved in the treatment of CKD and its preceding or concomitant diseases. Awareness and communication between the attending physician and the neurologist may be the single most effective step in achieving the best results in CKD.

### Epidemiology and burden

In 2000, an estimated 26 million people in the United States suffered from CKD. Moreover, the prevalence of CKD in the United States is increasing; data from the US National Health and Nutrition Examination Survey (NHANES) show an increase of 25% from 1988 to 1994 to the period from 1999 to 2004. The aging of the population and the growing prevalence of diabetes and hypertension are the main reasons for the increase in the prevalence of CKD. It is expected that an increase in the prevalence of CKD, in turn, will increase the demand for nephrologists beyond the current supply. Natural progression without medical intervention CKD leads to ESRD. Once ESRD is achieved, treatment options are limited to renal replacement therapy (hemodialysis or peritoneal dialysis) or kidney transplantation. These treatments are associated with a high burden on patients, health care providers and payers and have different chances of survival. Kidney transplantation

provides much better survival rates than dialysis. American hemodialysis recipients adjusted all-cause mortality rates in 2008 6.4-7.8 times higher than that of the general public; corresponds to Patients on hemodialysis and peritoneal dialysis had the same mortality in this data set. On the contrary, kidney transplant recipients in 2008. The death rates in the year were 1.2-1.5 times higher than the total population. Comparable survival rates of patients undergoing hemodialysis and peritoneal dialysis in the population of the US Kidney data system for 2008 (data presented in the annual atlas for 2010) were the same. Hemodialysis remains the most frequently chosen The American regimen of renal replacement therapy. Factors affecting peritoneal dialysis include early and frequent visits to a nephrologist before dialysis, age and functional status, level of education and social support. Cost recovery considerations and the experience of peritoneal dialysis centers also influence its use.

### **Definition and diagnosis**

Chronic kidney disease is defined as evidence of kidney damage or glomerular filtration rate (GFR) 60 ml/min/1.73 m<sup>2</sup> during 3 months. Damage can be determined by an abnormal amount of protein in the urine or microscopic hematuria, as well as any anatomical, radiological or histopathological anomaly. In the absence of any previously known kidney diseases, an increase in serum creatinine levels during routine laboratory examination is often the first sign of impaired function. Unfortunately, an increase in serum creatinine levels often indicates that extensive kidney damage has already occurred. Rely solely on The “normal” serum creatinine level with the exclusion of CKD leads to both insufficient diagnosis and insufficient treatment.

### **Medication Dosing with Impaired Renal Function**

It is important in clinical practice to know a patient’s true renal function and to adjust doses of really metabolized and/or excreted medications accordingly. Consequences of inadequate dose adjustments are clearly highlighted in several recent studies. In a Dutch study, 5.6% of all hospitalizations were related to medication side effects. The most common etiology for these events was dosage error due to failure to adjust for renal function. Proper dosing of medications that are dependent on renal clearance must take HER into account.

### **Risk factors and complications CKD**

#### **Diabetes**

Most patients with diabetes mellitus suffer from type 2 diabetes mellitus (DM2), and this population accounts for the majority of cases of diabetic nephropathy in the United States. However, most of the data on the development of diabetic

nephropathy comes from type 1 diabetes mellitus (DM1), since this form of the disease is much easier to study the onset of the disease is usually well defined by a dramatic and sudden manifestation with severe hyperglycemia and often ketosis. Therefore, it is important to note that data on diabetic nephropathy are often extrapolated to DM1 to T2DM. The most important thing that PCP can do to protect the kidneys of people with diabetes is to strictly control their diabetes and maintain blood pressure at 130/80 mmHg and the level of glycated hemoglobin (HbA1c) from 6.5% to 7.0%. If glucose levels are not properly controlled, and if blood pressure is not controlled to a strictly targeted level, all patients with DM2 are likely to develop some degree of nephropathy that can be identify through thorough testing. Numerous factors contribute to the development and progression of diabetic nephropathy, including inadequate control of glycemia or blood pressure, hemoglobin levels, smoking and other factors.

### **Conclusion**

With increasing awareness of kidney failure and its devastating complications, PCP will continue to be the earliest and, in many ways, the most important means of responding to this growing epidemic. Primary health care methods are at the forefront of early detection and treatment of CKD. Early detection and treatment can reduce the impact of CKD complications and slow the progression of CKD; these benefits are missed by many patients who are not currently diagnosed before their

CKD becomes severe. Primary health care activities that can slowing the progression of CKD includes the treatment of arterial hypertension to normal blood pressure, monitoring blood glucose levels in diabetic patients and monitoring patients with diabetes and hypertension for the development of microalbuminuria or more severe proteinuria. Regulation of blood pressure by means modulating the renin-angiotensin-aldosterone system may be associated with a beneficial effect on the progression of CKD and cardiovascular risk factors in some patients.

### Used Literature

1. O'Malley A.S., Reshovsky J.D. Referral and consultation communication between primary health care and specialist doctors: finding common ground. *Chief Intern Med.* 10;171(1):56-65.
2. Koresch J., Selwyn E., Stevens L.A. et al. Prevalence of chronic kidney disease in the United States. *JAMA.* 2007;298(17):2038-2047.
3. Initiative to improve outcomes of kidney diseases.

Guidelines for clinical practice in chronic kidney disease. Part 4. Definition and classification of stages of chronic kidney disease. *I have a kidney disorder.*

2002;39(2 Supplements 1): S46–S75