



WORLD KIDNEY DAY - 2020

Kidney health for everyone and everywhere

From Prevention to Detection and the Equitable Access to Care

Maria Cristina de Andrade on behalf of:

Department of Pediatric Nephrology, Brazilian Society of Pediatrics

Marcelo de Sousa Tavares on behalf of:

Department of Pediatric Nephrology of the Brazilian Society of Nephrology

Created in 2006 by the International Nephrology Society (ISN) and the International Federation of Kidney Foundations (IFKF), World Kidney Day (WKD) aims to reduce the impact of kidney disease worldwide and is celebrated on second Thursday of March. This year, the date will be celebrated on March 12th. Currently, kidney disease affects approximately 850 million people worldwide. One in ten adults has chronic kidney disease (CKD), characterized by kidney damage, which lasts for three months or more. The kidneys have many functions such as: regulating blood pressure, eliminating toxins from the body, controlling the amount of salt and water in the body, in addition to producing hormones that prevent anemia and bone diseases.

CKD is usually silent in its early stages, that is, there are no symptoms, or they are few and nonspecific. For this reason, the diagnosis can occur late, when renal function is already quite compromised, often at an advanced stage, in which case dialysis or kidney transplantation is necessary. Thus, prevention and early diagnosis of chronic kidney disease are essential and can be performed through low-cost tests, such as blood creatinine and urine tests, in addition to blood pressure measurement.

Chronic kidney disease is among the main causes of health expenditure, with dialysis and transplant costs consuming 2 to 3% of the annual health care budget in high-income countries. In low- and middle-income countries, such as Brazil, most people with kidney failure have inadequate access to dialysis and kidney transplantation. Kidney disease can be prevented and its progression to the final stage can be delayed through adequate access to early diagnosis and treatment.

This year, 2020, World Kidney Day aims to raise awareness about the increasing incidence of kidney disease worldwide, and to provide kidney health care for everyone, everywhere. Specifically, the 2020 campaign highlights the importance of preventive interventions to avert the onset and progression of kidney disease.

"Prevention" is considered the set of measures typically categorized by the following three definitions:

1. Primary Prevention, which implies intervening before the individual's health is compromised, in order to prevent the onset of kidney disease,
2. Secondary Prevention are preventive measures for the early diagnosis and immediate treatment of kidney disease, thus avoiding the development of more serious issues,
3. Tertiary prevention, which refers to the management of kidney disease after it is established, in order to control the progression of the disease and the appearance of severe complications.

Specifically, in the case of children and adolescents, preventive measures must be primary, that is, pediatricians and other professionals must work with the primary objective of eliminating or reducing exposure to risk factors for chronic kidney disease. Primary prevention of kidney disease requires the modification of risk factors, including diabetes mellitus and hypertension, which are the main causes of CKD in adults.

Additionally, unhealthy diets must especially be avoided in children, as they can lead to overweight and obesity, with a consequent risk of arterial hypertension and metabolic syndrome. Pediatricians and other health professionals, in addition to parents and educators, should encourage breastfeeding, regular physical activity, and avoid consumption and contact with smoking and legal and illegal drugs.

In addition, structural abnormalities of the kidneys and urinary tract should be investigated, which can already be detected in gestational ultrasounds, in addition to avoiding the use of nephrotoxic drugs, both for the newborn, children and pregnant women. Even with the disclosure of the importance of a rapid diagnosis and the need for follow-up, many children are diagnosed as having kidney problems only when their kidney function is already well compromised. In Brazil and in the world, of every 10 children who are treated with dialysis or transplantation, 5 are carriers of some disease which first manifested itself as an urinary tract infection. The need for investigation after an episode of urinary tract infection must be publicized and reach physicians who work with Family and Community Medicine and Primary Health Care Teams.

Primary preventive interventions may include screening for patients at higher risk for chronic kidney disease, with the aid of urine and blood tests. Risk groups are considered, for example: Individuals with low weight at birth and premature newborns, presence of renal dysplasia or hypoplasia, history of spinal cord tumors and traumas, glomerulopathies, among others.

In children and adolescents with pre-existing kidney disease, secondary prevention, including normalization of blood pressure, glycemic and weight control, are the main objectives of education and clinical interventions.

Children older than 3 years of age and healthy adolescents should have their blood pressure levels checked by health professionals or pediatricians in annual routine consultations, using the appropriate technique and should be classified using tables that take into account sex, age and height. Those diagnosed as hypertense or as having high blood pressure, should be monitored regularly and advised on non-pharmacological measures (dietary guidance and exercise, in addition to weight reduction when necessary), or even when necessary, the introduction of drug therapy.

In patients with advanced CKD, it is necessary to manage comorbidities such as uremia and cardiovascular diseases.

In 2020, on World Kidney Day, everyone is asked to defend concrete measures to promote and advance the prevention of kidney diseases. In developed countries, information about kidney diseases is disseminated through foundations and influential people in society. In less developed

countries, by contrast, information is not always well disseminated, which is something that needs to change. If each of us disseminates information about kidney problems to all layers of society, we will be able to provide a better future for everyone.



Sociedade Brasileira
de Nefrologia