Arch Argent Pediatr. 2026;e202611138

Toward a new paradigm in kidney care: An urgent need

Andrea Exeni[1]

Chronic kidney disease (CKD) in childhood has an estimated prevalence of 15 to 75 cases per million children and constitutes a high-impact health problem due to its long-term consequences. Its onset in early life affects growth, development, and cardiovascular health, and is associated with high morbidity and mortality. Furthermore, many of these patients will require renal replacement therapy, which places a significant burden not only on healthcare systems but also on the patients themselves and their families, and will affect their quality of life. In this context, the pediatrician plays a central role, as they are uniquely positioned to intervene in the early stages of the disease.[1]

In Argentina, the burden of disease is significant: there are currently 821 pediatric patients on the waiting list for kidney transplants and 304 undergoing dialysis. These figures reflect not only the magnitude of the problem but also the limitations in early detection and in preventing disease progression—areas in which primary care plays a key role.[2]

World Kidney Day, celebrated on the second Thursday of March, took place this year under the theme "Kidney Health for All: Caring for People, Protecting the Planet," with a focus on prevention, early detection, and the environmental sustainability of kidney care. Along these same lines, in 2025, the 78th World Health Assembly adopted the first specific global resolution on kidney health, recognizing it as a priority among noncommunicable diseases. This resolution promotes the integration of kidney health into health policies, equitable access to diagnosis and treatment, and strategies to reduce disease progression and the global burden of kidney disease.

In this context, a recent international study analyzing more than 23 000 pediatric patients on renal replacement therapy from 80 countries is particularly relevant. Its findings reveal significant global variability in the causes of kidney failure in children, influenced by geographic, ethnic, genetic, and socioeconomic factors. A considerable proportion of cases remains of undetermined etiology, even in high-income countries, highlighting persistent gaps in early detection and timely diagnosis.[3]

CKD in childhood is associated with multiple complications, including growth and developmental abnormalities, disorders of bone mineral metabolism, cardiovascular disease, and increased mortality. Children requiring dialysis have a mortality rate between 30 and 150 times higher than that of the general pediatric

doi: http://dx.doi.org/10.5546/aap.2026-11138.eng

To cite: Exeni A. Toward a new paradigm in kidney care: An urgent need. *Arch Argent Pediatr*. 2026;e202611138. Online ahead of print 25-JUN-2026.

[1] *Pediatric Nephrology Department, Hospital Universitario Austral, Pilar, Argentina.*

Correspondence to *Andrea Exeni: aexeni@cas.austral.edu.ar*

population, with a significantly reduced life expectancy. In this scenario, early detection is no longer an option but a necessity, and the pediatrician's role is crucial in altering the course of the disease.

Early identification of risk factors is a key tool in everyday pediatric practice. Conditions such as preterm birth, low birth weight, obesity, congenital malformations of the kidney and urinary tract, and episodes of acute kidney injury, among others, increase the risk of developing CKD over the course of a lifetime. In this regard, pediatricians have simple and accessible tools—such as a targeted medical history, evaluation of family history, a comprehensive physical examination with blood pressure measurement, and, in selected situations, a urinalysis—that can contribute substantially to early detection and timely follow-up.[1]

However, CKD remains underdiagnosed and, in many contexts, is not given sufficient priority on public health agendas. This gap between the scale of the problem and the level of response is one of the main shortcomings of current healthcare systems. It underscores the need to strengthen pediatricians' role in identifying at-risk patients.

Added to this is the need to review the current care model. Traditionally focused on advanced stages of the disease and on replacement therapies such as dialysis, this model is becoming increasingly unsustainable. Not only does it entail high economic costs, but it also leads to suboptimal clinical outcomes and reduced quality of life for many patients.

CKD is also a disease deeply influenced by social determinants. It disproportionately affects vulnerable populations, where poverty, barriers to healthcare access, and adverse environmental conditions converge. At the same time, an additional challenge is emerging: the bidirectional relationship between kidney health and the environment. Climate change, heat exposure, pollution, and various toxins are increasingly recognized as factors contributing to kidney damage. In turn, renal replacement therapies, particularly dialysis, generate a significant environmental footprint due to high consumption of water, energy, and materials.

This situation underscores the need to move toward "green nephrology", in which environmental sustainability is integrated as an essential component of the quality of care.

Considering these challenges, it is imperative to promote a cultural shift in the approach to CKD. We must transition from a model focused on advanced disease to one based on prevention, early detection, a patient-centered approach, and equitable access to care. In this shift, the pediatrician plays an irreplaceable role in prevention, timely detection, and sustained care for patients. Only in this way will it be possible to reduce the burden of childhood kidney disease and improve these patients' life prospects.[4]

REFERENCES

1. Exeni A. Nefroprotección del paciente de riesgo. En: Sociedad Argentina de Pediatría. PRONAP. 2023;3(3):81-118.
2. Sistema Nacional de Información de Procuración y Trasplante de la República Argentina (SINTRA). Central de Reportes y Estadísticas del SINTRA (CRESI). [Accessed on April 27, 2026]. Available from: https://cresi.incucai.gov.ar/Inicio.do
3. Borzych-Dużałka D, Bonthuis M, Ali U, Yap YC, Manno M, Zhai Y et al. Regional variation of underlying kidney diseases in children undergoing chronic kidney replacement therapy around the globe. *Pediatr Nephrol.* 2026;41(5):1451-63. doi: 10.1007/s00467-025-07096-3.
4. Vanholder R, Abdellatif D, Dos Santos ACS Jr, Correa-Rotter R, Gopalakrishnan N, Wang B, et al. Kidney health for all: caring for people, protecting the planet. *Kidney Int.* 2026;109(3):408-17. doi: 10.1016/j.kint.2025.12.020.