

CHRONIC KIDNEY DISEASE

*How Early Diagnosis Can
Drive Better Outcomes*

Summary of Global Perspectives

May 2023



Introduction

On March 22 and 23, 2023, the Global Alliance for Patient Access joined with leading patient advocacy organizations from around the world to consider how the burden of chronic kidney disease might be reduced through better access to early-stage treatment. Participants discussed the benefits of early detection and treatment and identified a number of unmet needs that impede screening for at-risk patients and preventing End-Stage Renal Disease.

Chronic kidney disease can be tied to several factors, such as genetic predisposition and lifestyle practices. Common comorbidities, like diabetes, hypertension and cardiovascular disease, can also play a role. Social determinants of health—like income level and access to nutritious food—are additional factors that can drive chronic kidney disease.

Those at risk for chronic kidney disease can be routinely screened through specific tests that measure the creatinine level and the blood protein in urine. However, limited access to health care can result in delay of diagnosis and inadequate management of chronic kidney disease and related cardiometabolic conditions.

There is no cure for chronic kidney disease. There are, however, ways to slow disease progression and preserve kidney function.

- Lifestyle modifications—such as regular exercise, a healthy diet and abstinence from smoking and drinking alcohol—can help reduce the complications associated with chronic kidney disease.
- Medications can be used to treat the decline in kidney function and slow the progression of chronic kidney disease.

For these and other approaches to work, however, patients need early diagnosis and timely treatment.



About Chronic Kidney Disease

Chronic kidney disease is a progressive condition in which a patient's kidney function gradually declines over time.

As the kidneys become more impaired, they are less able to filter waste and excess fluids from the bloodstream. Toxins begin to accumulate.

Untreated chronic kidney disease can progress to end-stage kidney disease, ultimately requiring renal replacement therapy to maintain life.



Prevalence & Burden of Chronic Kidney Disease

Navdeep Tangri, MD, PhD, of the University of Manitoba addressed meeting participants on the global burden of chronic kidney disease.

Worldwide today, more than 800 million people – about one in 10 – live with chronic kidney disease. Most live in low-to-middle-income countries. Many people with chronic kidney disease – about 70% – are unaware of their status, perhaps because diagnosis often doesn't occur until the disease has progressed to stage three. This is particularly true for high-risk patients – those with hypertension and cardiovascular disease.

Delayed diagnosis has dire consequences. Each year, more than 1 million people die from chronic kidney disease, and 1.5 million more die from cardiovascular disease-related complications related to impaired kidney function. Chronic kidney disease ranks 12th in global causes of death, with a global annual cost of \$1 trillion.

Global prevalence and costs of chronic kidney disease show no signs of slowing. Over the next five years, prevalence is expected to rise by up to 3%, and costs are expected to balloon by 23%.

Yet policymakers, particularly those in low-income countries, still fail to give chronic kidney disease the attention it deserves.



The Benefits of Early Detection

Early detection of chronic kidney disease could benefit patients, families, health systems and national governments in several ways.



Slowing Disease Progression

Earlier intervention can slow disease progression, delaying a patient's need for kidney replacement therapy.. The average patient sees a nephrologist only once their kidney function drops to 40%. But if diagnosis occurs in the early stages in a primary care setting, and in concert with combination therapy, a patient's need for dialysis can be delayed by up to 16 years.¹



Enhancing Patients' Quality of Life

Early detection allows patients and their families to better understand chronic kidney disease and make informed care decisions. For example, it can help patients adopt lifestyle modifications to improve their overall health. Early detection also allows for health care providers to begin treating patients' kidney disease earlier, delaying the complications associated with advanced disease.



Improving Management of Comorbid Conditions

Chronic kidney disease patients often face comorbidities such as hypertension and diabetes. If left untreated, these conditions can further damage the kidneys. With early detection, however, patients can work with their health care providers to more aggressively and proactively manage comorbid conditions, reducing their impact on overall health.



Alleviating Caregiver Burdens

Early detection and treatment of chronic kidney disease can help patients limit disease progression, increasing their ability to live independently. This can alleviate the burden on loved ones and caregivers by delaying or reducing the need for full-time care.



Producing Long-term Financial Savings

End-stage kidney failure is costly to treat. Its impact includes direct health care system costs, environmental costs, expenses for patients and economic costs like lost productivity. Diagnosing and treating kidney disease early can decrease both the direct and indirect expense of the disease.

In low-income countries, where screening programs may be scarce, treatment and disease management often focus on kidney disease's end stages. Yet early detection could save patients, payors and governments significantly by limiting lost productivity and direct health care costs.



Reducing Stress on Overburdened Health Care Systems

Early intervention can reduce patients' need for health care services, such as frequent hospitalizations and visits with medical specialists. By reducing avoidable use of health care resources, early detection increases the availability of services and resources for other areas of medical need.



Minimizing Environmental Impact

Dialysis is an environmentally costly way to treat chronic kidney disease. The treatment itself requires significant energy, water and waste components – not to mention the regular transportation of patients to and from dialysis facilities. Early detection and treatment could reduce these environmental impacts.



Needs & Recommendations

Given the ample benefits, early disease identification and management of chronic kidney disease are critical. Several barriers, however, must first be addressed.

Greater Education & Awareness

Increasing awareness about chronic kidney disease and its consequences among patients, primary care providers and policymakers could facilitate earlier diagnosis and treatment.

Provider education in particular is essential. Lack of understanding of chronic kidney disease and available treatments among primary care providers is a significant barrier to early detection and intervention. It also undercuts prevention efforts.

There is a need to educate the public and at-risk communities as well. Simple,

clear-language resources and campaigns are important, as is highlighting prevention and disease detection during global and regional policy forums. Both efforts could bolster the disease's profile as a public health priority. Elevating general awareness of kidney disease and its connection to other health issues could also help reduce stigma and encourage people to get tested.

Traditionally underserved communities require special attention. Partnerships with other social issue-oriented organizations could assist in raising awareness about chronic kidney disease within these communities.



Access to Risk-Based Screening

Chronic kidney disease is a silent disease, rarely presenting perceptible symptoms. Patients often go undiagnosed and untreated until the disease is advanced, sometimes leading to sudden, unplanned and intensive treatment – a phenomenon referred to as “crash dialysis.”

Professional organizations should advocate for targeted chronic kidney disease screening that’s based on individual patients’ risk profiles. Patients with comorbidities like hypertension, diabetes, and cardiovascular disease, for example, should be screened regularly. At present, chronic kidney disease screenings are underutilized, even for patients with diabetes.

Patients also should be screened using more accurate measurements, such as albuminuria-to-creatinine and GFR tests. This is a critical need, particularly in low-income countries, where few of these tests are available at the primary care level. Across the board, patients should be screened earlier.

Improved screening for chronic kidney disease will encourage earlier diagnosis and treatment, improving outcomes for patients, caregivers and health care systems alike.



Post-diagnosis Patient Support

After diagnosis, many patients have only limited information on their condition and given little guidance other than to “wait and see.”

Patients need more information, specifically resources that are tailored to their mode of understanding. Language written by or for medical professionals, for example, may not answer patients’ questions in a clear or meaningful way.

Medical test results can also be difficult for patients to interpret. As a result, patients may not fully appreciate the severity of their condition. A simple, easily digestible “kidney function score” could be a more effective metric for communicating with chronic kidney disease patients.

Patients may also lack access to specialty care after their diagnosis. Many countries’ nephrology workforces are understaffed, making it difficult to serve patients with chronic kidney disease.

To slow disease progression and treat related conditions, patients need access to guideline-directed medical treatments, as well as lifestyle and dietary advice. Due to recent innovation, primary care physicians now have more options in managing chronic kidney disease with safe and effective medications.



Eliminating Health Care System Inefficiencies

By reducing inefficiencies, health care systems could better serve patients with chronic kidney disease.

Integrating screening technologies into routine care, for example, would be a significant improvement. Labs could incorporate kidney testing into their profile of routine tests. In this way, automatic kidney testing could aid diagnosis and initiate earlier treatment for chronic kidney disease. Routine testing could also minimize repeat doctor's visits, reducing overall health care spending and caseloads for overburdened physicians and healthcare facilities.

Another important step could be programming electronic medical records systems to prompt physicians to screen

at-risk patients. This approach could help reduce the risk of missed diagnoses and improve patient outcomes.

There may also be a role for physician incentives. Primary care physicians are generally the first point of contact for patients with risk factors for chronic kidney disease. Incentivizing physicians to recommend regular kidney function tests can increase the likelihood that at-risk patients are diagnosed early and tracked for appropriate care. Developing an accessible at-home test kit could further facilitate diagnosis while reducing burdens on primary care providers.

Finally, updating and harmonizing guidelines for chronic kidney disease at the primary care level could improve disease management. Inconsistent guidance can sow confusion, increasing the likelihood that patients miss out on critical screening opportunities or early treatment.

Conclusions

Chronic kidney disease is a burdensome, prevalent condition that exacts a growing toll on patients, health care systems, the environment and governments worldwide.

By working together to address unmet needs, however, global stakeholders can improve access to early detection and treatment—offering patients better health outcomes and a greater quality of life and reduce the disease's global economic impact.

Meeting Participants & Presenters

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References:

1. Kidney Disease: Improving Global Outcomes. *Kidney Int* 2022;102:S1-S127; 2. Sood MM, et al. *Clin J Am Soc Nephrol* 2014;9:1747-1756



About the Global Alliance for Patient Access

The Global Alliance for Patient Access is an international platform for health care providers and patient advocates to inform policy dialogue about patient-centered care.

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