

# Kidney News

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## Patient Experience Is Driving the Development of New Outcomes for Fluid Overload Treatment

By Bridget M. Kuehn



A decade ago, Christine Gwinn started noticing her clothes suddenly and inexplicably became tight during a fly-fishing trip in Colorado. Over the next 6 weeks, fluid buildup caused her weight to skyrocket from 120 to 200 pounds. Her physicians diagnosed her with focal segmental glomerulosclerosis (FSGS). Initial treatment with diuretics and fluid restriction were not effective, so Gwinn was started on emergent dialysis to alleviate the fluid buildup and protect her kidneys.

“When it’s that kind of dramatic change, finding something that works is critical,” Gwinn said. Eventually, she started taking prednisone. It worked well but had many side effects.

Now, Gwinn is part of a team effort to spur the development of new treatments for fluid buildup associated with nephrotic disease

that better meet patients’ needs. Gwinn is a member of the Stakeholder Engagement Committee for Prepare-NS (1), a US Food and Drug Administration (FDA)-funded study recruiting patients with nephrotic disease to share their experiences.

“The goal of the project is to create a set of outcome measures to capture the clinical benefit of new nephrotic syndrome treatments,” said Co-Principal Investigator John Devin Peipert, PhD, assistant professor of medical social sciences at Northwestern University’s Feinberg School of Medicine (Chicago, IL). “Patients are in the best position to tell you about their experience of that symptom, the severity of the symptom, the frequency, and how it impacts their life.”

### What’s the catch?

Current treatments for fluid overload associated with nephrotic disease focus on either treating the underlying condition causing kidney dysfunction or using diuretics to help the kidneys remove the salt and water causing the buildup, said

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## Team-Based Care Is Essential for Diabetic Kidney Disease

By Bridget M. Kuehn

The emergence of a new generation of kidney-protecting therapies for diabetes, including sodium-glucose cotransporter-2 inhibitors, glucagon-like peptide 1 receptor agonists, and finerenone, will require better use of team-based care, according to a flurry of recent recommendations.

In recent months, Kidney Disease: Improving Global Outcomes (KDIGO) updated its diabetic kidney disease guidelines (1), and the American Diabetes Association (ADA) and KDIGO released a consensus report (2) on diabetic kidney disease management. According to the guidelines, making the most of the new practice-changing therapies along with lifestyle modifications and more traditional therapies will require new multidisciplinary,

comprehensive models of care. The recommendations echo those of the ASN Diabetic Kidney Disease Collaborative Task Force (3) calling for the transformation of the care of patients with diabetic kidney disease.

“With the breakthrough therapies we now have, nephrology is poised to be completely transformed as a specialty,” Katherine Tuttle, MD, chair of the ASN Diabetic Kidney Disease Collaborative Task Force and professor of medicine at the University of Washington in Spokane, said in an interview. “Instead of focusing on end stage and kidney failure, we now have the opportunity to focus on early diagnosis and treatment that [preserve] kidney function for a lifetime.”

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### Hemodialysis access app

Planning for vascular access just got a little easier.

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Most American adults with type 2 diabetes meet the criteria for GLP-1 RAs or SGLT2is, but few receive them.



### Policy Update

ASN, AAKP urge Congress to support kidney health.



# Team-Based Care Is Essential for Diabetic Kidney Disease

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## Multi-organ effects

Approximately one in three (4) or one in four (5) patients with diabetes has chronic kidney disease (CKD), and too many patients go undiagnosed until their kidney disease has progressed to a late stage when they have fewer treatment options. “It is an extremely common condition and probably more common than most clinicians realize because screening, detection, and awareness have been so low,” said Tuttle, who co-authored the KDIGO guidelines and task force recommendations.

The development of kidney diseases in patients with diabetes can also have severe consequences for patients’ heart health, said Prakash Deedwania, MD, a cardiologist and professor of medicine at the University of California, San Francisco, in an interview. Most patients with end stage kidney disease die from cardiovascular causes, he noted, in a review of the intersecting renal-cardio and metabolic consequences of diabetes (6). He noted in the interview that by the time patients reach stage 4 of kidney diseases, they already have substantial vascular damage and far fewer treatment options. But treating patients with diabetes for heart disease earlier by using lipid-lowering therapy can halt or reverse diabetic nephropathy (6).

**Physicians are important, no doubt about it . . . but we need to recognize that there are other members of the team who have a lot to offer, too.**

Deedwania and Tuttle agree that more early screening for kidney diseases in patients with diabetes is essential. The ADA-KDIGO consensus guideline recommends annual screening for CKD in patients with diabetes starting at diagnosis (2). Deedwania noted that physicians obtain information about a patient’s glomerular filtration rate from routine testing. They can use that information to identify people during the earliest stages of kidney diseases, educate them about the condition and its consequences, and work with them to prevent progression. “That is the time to intervene,” Deedwania said.

But Tuttle acknowledged that successful screening efforts for kidney diseases in patients with diabetes would likely lead to an influx of new patients at a time when the United States is facing a growing shortage of nephrologists and other physicians (7). “We do not have a workforce that is prepared for it,” she said. Traditionally, primary care clinicians primarily manage patients with diabetes,

but Deedwania said they cannot do it alone.

So far, many newer medications for patients with diabetes and kidney diseases have been under-utilized, said Joshua Neumiller, PharmD, professor of pharmacotherapy at Washington State University in Spokane and a co-author of the ADA-KDIGO consensus report. He noted that patients with diabetes and kidney diseases have many risk factors that need to be managed, including lifestyle optimization. They may be treated simultaneously by diabetes specialists, cardiologists, and nephrologists. They may also need complex medication management. “We have to come together as a team to ensure we’re treating the individual in a holistic fashion to manage all of their risk factors the best we can,” Neumiller said.

## Dream team

Tuttle and Deedwania agree that advanced practice clinicians could play a key role in multidisciplinary teams for patients with diabetes affecting multiple organ systems. Teams might include primary care physicians, cardiologists, diabetologists, endocrinologists, nurse practitioners, pharmacists, nurses, diabetes educators, dietitians, and social workers.

“Physicians are important, no doubt about it, and we have certain training that makes us particularly adept at diagnosis and complex management, but we need to recognize that there are other members of the team who have a lot to offer, too,” Tuttle said. “We need to move beyond the paternalism that it always has to be a physician.”

Tuttle suggested that a nephrologist could be a team leader and focus on tasks such as complex diagnostic workups or condition management difficulties. Other team members could handle more routine tasks such as follow-up and medication management. Dietitians can help address lifestyle factors, whereas social workers can help patients overcome barriers such as insurance access. “It is going to be a huge task, but we view team care as a way forward to deliver high-quality, reliable care to large numbers of patients with a limited nephrology workforce,” Tuttle said.

Tuttle also emphasized the importance of patient engagement in team-based care. Patients with diabetic kidney disease have innovative ideas based on their lived experience and know what will work best for them, she said. “They are the ultimate stakeholder,” she said.

The ADA-KDIGO consensus report also emphasizes the need for patient-centered, whole-person care. Neumiller noted that engaging patients in shared decision-making about their treatment options improves patient engagement and medication adherence because patients have a “buy-in” in the care plan.

Some preliminary efforts are underway to develop multidisciplinary diabetic kidney disease clinics. Tuttle said one approach might be to emulate the anticoagulation clinic model, which uses advanced practice clinicians and pharmacists to aid anticoagulant medication management for patients with cardiovascular disorders. A recent pilot study showed that a pharmacist-led intervention, including an interactive workbook, improved patients’ understanding of their kidney test results, boosted kidney function screening, and enabled the administration of appropriate kidney-protecting medications (8). “The evidence is building, and there’s a lot of interest in formally studying these interventions in people with chronic kidney disease,” Neumiller said.

Clinical pharmacists can play a crucial role in educating patients about their medications, their side effects, and how to mitigate them. They can help adjust background therapies to minimize hypoglycemia risk and assist with medication titrations for new medicines, Neumiller said. He said they could regularly check in with patients and serve as a hub, communicating any medication changes to all the team clinicians.

Until more formal team models are in place, Neumiller

recommended that nephrologists check in with the pharmacists in their organization about what services are available. He noted that his institution has a pharmacotherapy clinic where pharmacists can help patients access expensive medications or those requiring preauthorization, which can be a barrier for time-strapped physicians. He also suggested that the physicians tap into existing services such as diabetes educators at their institution.

Deedwania, Neumiller, and Tuttle acknowledged that substantial barriers to instituting new diabetic kidney disease models remain. The biggest hurdle may be reimbursement, Deedwania said. He noted that current payment models do not reimburse for care by multiple physicians during a single visit. The Centers for Medicare & Medicaid Services has created new payment models for CKD that incentivize team-based care. However, Tuttle said they focus more on the later stages of kidney diseases. New payment models and investment from health care systems are needed, she said.

“We now have the opportunity with the therapies we have to save lives, kidneys, and hearts,” Tuttle said. “We have a moral and ethical obligation to do so, and it will take a lot of voices speaking loudly to policymakers and health care systems.” ■

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