

## **Stemming Rising Tide of Chronic Kidney Failure**

By Gina Shaw

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A year or so ago, Kathleen Smith was filling up her car at a Washington-area gas station when a young black man approached her and asked her for money. She gave him a couple of dollars and then impulsively asked him a question: "Is anybody in your family on the kidney machine?" "Oh yeah," the young man replied without a moment's hesitation. "My mom and my aunt." "What about you? Have you been tested?" asked Smith, a longtime nephrology nurse. The young man admitted that it had been a couple of years, and she urged him to go back to a free clinic to get his kidney function tested again.

"He wasn't at all surprised at the question. He knew immediately what I meant by 'the kidney machine,'" recalled Smith, who is now the vice president for government affairs at Fresenius Medical Care, the world's largest provider of products and services for people with chronic kidney failure. Indeed, she said, if you ask almost any inner-city African American man or woman if a family member is on "the machine," it's not really a yes or no question, but a question of "how many?"

Chronic kidney failure is on the rise throughout the United States, but in the Washington area, it's virtually an epidemic. Today there are about 130,000 successful kidney transplant patients in the United States and another nearly 350,000 people on dialysis, for a total of nearly half a million people living with what's known as end-stage renal disease, meaning that there is a complete or near complete failure of the kidneys to function for day-to-day life. By 2010, experts estimate that number will double to close to 1 million people.

In the Washington area, the picture is particularly disturbing. In the District of Columbia alone, about 5,000 people are now on dialysis and some 2,000 are waiting for a kidney transplant. Those numbers translate into a "prevalence rate" of approximately 3,572 people with end-stage renal disease for every 1 million people in the area. That's about two and a half times the national average prevalence rate of 1,435 per million—the highest in the nation.

Why is D.C. the capital of kidney failure? Dr. Andrew Howard, a nephrologist with Metropolitan Nephrology Associates in Alexandria, Va., and former chair of the National Kidney Foundation of the National Capital Area, said that in large part it's because the Washington area has a particularly high-risk population. "We have very high rates of diabetes and hypertension, which account for about 75 percent of cases of end-stage renal disease," he said. "And we know that certain ethnic groups, like blacks and Hispanics, have a higher incidence of both hypertension and diabetes, and correspondingly high rates of kidney failure."

African Americans, for example, constitute approximately 12 percent of the total U.S. population, but they comprise 32 percent of all patients with kidney failure—something Kathleen Smith knew when she talked to the young man at the gas station. "Hypertension is very common in young black males in particular," she said. "But hypertension and diabetes can go undetected until they've already caused a lot of their long-term damage in people. When I was in nephrology nursing, it wouldn't be uncommon to see a 24-year-old black man present in the emergency room over a weekend already in full-blown end-stage renal failure, in need of dialysis because of hypertension that he'd had since childhood."

And it's going to get worse, she predicted. Given the rising rates of diabetes and youth obesity, "there's a tidal wave of patients out there who are on their way to end-stage renal disease if something isn't done about it," said Smith. But according to the National Kidney Foundation, almost 45 percent of people with stage 4 kidney disease—just one stage away from kidney failure—had never been told there was anything wrong with their kidneys. Between 20 percent and 40 percent of people with earlier stages of the condition were equally unaware of the damage to their kidneys.

## **Possibilities for Prevention**

This is particularly tragic, said Howard, because many cases of kidney disease can now be controlled and prevented from advancing. “I think we’re now on the cusp of having confidence that, if we see the patient early enough and get them appropriate care, we can prevent progression of kidney disease. Ten years ago, I don’t think we could have said that.”

He credited the research of Dr. Barry Brenner, now an emeritus professor at Harvard, with advancing the idea that kidney disease could be preventable—an idea that has now been borne out by medical evidence. “We do have the tools now, not for everyone, but for a substantial percentage of patients, to be able to stabilize kidney disease,” Howard said.

First, he explained, kidneys are uniquely sensitive to blood pressure. “Good control of blood pressure can really do a tremendous amount to stem the progression of kidney disease,” he said. What’s more, two classes of drugs—angiotensin-converting enzyme (ACE) inhibitors and their chemical cousins, angiotensin receptor blockers (ARBs)—that have gained favor in recent years for their remarkable ability to control blood pressure also seem to slow down kidney disease progression independent of the benefit they offer by lowering blood pressure. “Over the past decade, we’ve developed voluminous evidence that almost all patients with kidney disease should be on at least one of these drugs,” said Howard.

The other critical element in staving off kidney disease is controlling diabetes, which is the leading cause of end-stage renal disease. According to the American Diabetes Association, good diabetes management and detection of early diabetic kidney disease can cut the rates of kidney failure by 30 percent to 70 percent. But just as with hypertension, diabetes can be a stealth disease: Of the 18 million Americans with diabetes today, nearly a third of them don’t know they have it. And you can’t control a disease that you don’t know you have.

Smith and Howard hope that legislation introduced in Congress in March will change that. The Kidney Care Quality and Improvement Act of 2005—sponsored by Sen. Rick Santorum (R-Pa.), Sen. Kent Conrad (D-N.D.), Rep. William Jefferson (D-La.) and Rep. David Camp (R-Mich.)—would expand patient education for those at risk for kidney disease and those with chronic kidney disease, as well as those already in renal failure. “Our goal is to try and reach patients, to do outreach public health initiatives in the most at-risk communities to make people aware of the likelihood that they could develop renal failure, and how they can prevent it before it ravages their bodies,” said Smith.

The bill includes a five-year demonstration project linking Medicare payment incentives to improved quality of care, as well as funding for other demonstration projects in several states to increase public awareness of kidney disease, improve self-management, and provide kidney disease education services.

## **Improving Access to Dialysis Care**

But the cornerstone of the bipartisan legislation is about improving care for the rising numbers of people who already have end-stage renal disease and whose continued survival depends either on regular dialysis or a successful transplant. Because of the shortage of donor organs—the average wait for a new kidney is around five years—the vast majority of people with end-stage renal disease must spend three to four hours in the dialysis chair three times a week, every week.

Currently, the United States isn’t doing very well at caring for those dialysis patients, at least according to the numbers. The annual mortality rate for American dialysis patients is about 23 percent, compared with 15.6 percent in Europe and 6.6 percent in Japan. Some of that disparity can be attributed to the fact that many patients in the United States with end-stage renal disease are older and sicker, with more complicating conditions than those in Europe and Japan. However, it’s also true that patients in those countries have better access to care before the onset of kidney failure and that dialysis providers in those nations are better compensated to provide longer sessions and more access to care, according to the advocacy coalition Kidney Care Partners, which is promoting the bipartisan kidney care legislation.

The cornerstone of that legislation is a simple proposal: Adjust Medicare payments for dialysis annually to account for inflation. In 1972, Congress created the Medicare End Stage Renal Disease (ESRD) program, the only federal program that finances disease-specific services to a segment of the American

population on a virtually universal basis. But it left one thing out: the type of automatic annual inflationary adjustment that's done for other types of care in the Medicare system.

Occasionally providers have been able to lobby Congress for small adjustments in payment rates, but in real dollars, dialysis providers are actually getting less money today for the care they provide than they did 20 years ago. The composite rate for ESRD reimbursement in 1983 was \$134 per treatment; today it's \$130. Studies have shown that dialysis providers lose \$10 per treatment for each Medicare patient. The system also hasn't kept pace with new opportunities to improve ESRD treatment, such as early initiation of dialysis and more frequent dialysis schedules.

"At what point will the dialysis providers say enough is enough?" asked Howard. "They've been able to contain costs up until this point with improved efficiencies and the ability to adjust billing rates for the drugs that are billed separately, but I don't see how much longer that can last." Experts have predicted that some dialysis centers, particularly those in rural and inner-city areas, may soon have to close or consolidate.

What's more, reimbursement rates for particular procedures don't reflect the state of the medical science. For example, there are two common types of surgical access procedures created to make the veins large enough for the high-volume blood access that patients need for dialysis. One, known as a fistula, is the medically preferred method of access, connecting an artery directly to a vein. "Imagine something that looks like a garden hose under the skin of your arm, and that's a fistula," said Smith. Patients with fistulas tend to have lower infection rates, fewer hospitalizations, and less need to have the access replaced surgically.

The other option is a graft, an artificial fiber that's connected to the artery on one end and the vein on another. "It's great in certain cases and works particularly well in the elderly and other patients who may have bad veins," said Howard. "But grafts have much shorter lifespan than do fistulas. They tend to clot and need to be declotted, require more hospitalizations, involve more infections, and there are data suggesting that survival rates are lower."

So most patients undergoing dialysis, unless complications with their veins make a graft necessary, probably have a fistula—right? Wrong. "You might think that since fistulas were first described 40 years ago, almost every patient would have them, but nationally only 35 [percent] to 38 percent of patients do," Howard said. At least part of the reason for this lies with unequal reimbursement rates: The preferred fistula, a more complicated surgery, is reimbursed by Medicare at a lower rate than is the much simpler, less preferred graft surgery.

"That's the Achilles heel in dialysis and that's the major focus of every network right now—to increase the number of fistulas," said Howard. The fact that more fistulas are done in Europe and Japan, Howard suggested, is also probably part of the reason why patients on dialysis in those countries do better than those in the United States. The legislation would realign payment incentives to help promote fistulas.

"We're not asking for a Christmas tree," said Smith, who noted that the Kidney Care Quality and Improvement Act has been well received in Congress, where it has 10 cosponsors in the Senate and 70 in the House. "We're just asking for the reimbursement rate to be adjusted annually based on the 'market basket,' the way that others are. This issue has been silent for too long, and it's about life or death for so many people."

*To find out more about kidney legislation, kidney failure, transplants and dialysis in the United States, please visit [www.kidneycarepartners.org](http://www.kidneycarepartners.org).*

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