





INTRODUCTION

Nearly half a million Americans suffering from kidney failure depend for their survival on dialysis. For many of them, life is nasty, brutish, and short. One in four dialysis patients will die within the first year of treatment, and six in 10 will die within five years.² Patients typically spend four hours a day, three days a week, tethered to the machines that draw out their blood, filter it, and return it to them. Chills, fever, and crippling fatigue are common – as are heart attacks, due to the stress of pumping patients' blood through the machines at the rate of a pint per minute.³ Infections are commonplace too, particularly for patients outfitted with chest catheters, nicknamed the "great white tubes of death" because of their ability to send pathogens straight into a patient's heart and bloodstream.⁴

Improving the quality of life and outcomes for dialysis patients is vitally important. As important, however, is fixing the nation's approach to chronic kidney disease and, in particular, stemming the pipeline of patients headed toward kidney failure. Achieving that goal would not only improve patients' lives but also reduce costs. While patients with kidney failure made up roughly 1 percent of Medicare



beneficiaries, their care accounted for 7.2 percent of Medicare spending in 2014 and almost 1 percent of the total federal budget.⁵

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Specifically, the government should:

- Emphasize prevention
- Enhance education around treatment options, including in-home dialysis devices
- Invest in innovation
- Reimburse for all immunosuppressant drugs after a kidney transplant

HOW CURRENT FEDERAL POLICY STEERS PATIENTS TOWARD DIALYSIS

The ordeals of dialysis patients have recently won renewed attention thanks to a widely-watched exposé by HBO's John Oliver last summer⁶ and a pending California ballot initiative, spearheaded by SEIU-United Healthcare Workers West, to limit dialysis companies' profits.⁷

At front and center are two corporations – DaVita, Inc. and Fresenius Medical Group – which together control the lives of 70 percent⁸ of the nearly half a million⁹ dialysis patients in the United States. Among other alleged misdeeds, DaVita and Fresenius have been accused of heinous conditions in their clinics – including roach and gnat infestations¹⁰ – as well as price gouging.

But as much as these two companies deserve closer scrutiny, a third player deserves blame for the current state of affairs: Medicare. Though initially well intentioned, government policies end up steering many patients – especially those who are low income – into dialysis and away from better treatment options such as kidney transplants.¹¹

Kidney failure – or "end stage renal disease" (ESRD) - is the only condition around which Medicare has created an entitlement to coverage. The government guarantees payment for dialysis even if the patient wouldn't otherwise qualify for Medicare. Congress and President Richard Nixon created this policy in 1972, when the scarcity of dialysis machines and the high price of treatment meant a diagnosis of kidney failure was almost certainly a death sentence.12 For instance, lack of access to dialysis led to such horrors as Seattle's infamous "Life or Death Committee" - a true death panel of five anonymous citizens who decided how to ration the Seattle Swedish Hospital's 10 dialysis machines during the 1960s. 13 But, once the federal government created a steady payment stream for treatments, there was soon no shortage of dialysis machines. Today, there are 6,745 dialysis centers nationwide according to the Medicare Payment Advisory Commission (MedPAC), of which more than 4,800 are run by DaVita or Fresenius.14

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The cost of caring for dialysis patients has accordingly grown alongside the industry; in 2015, per-patient Medicare spending for dialysis patients averaged \$88,195, a figure that includes the cost of dialysis itself but also hospital visits, lab tests and treatment for the many complications kidney failure patients tend to suffer.¹⁵

Unfortunately, the current system only incentivizes more and more patients to end up on dialysis in the future.

One way current Medicare policy encourages dialysis is by paying only to treat kidney disease – not prevent it. Providers are not rewarded for braking a kidney patient's inexorable slide toward dialysis, even though many cases can be slowed or even reversed with medication and lifestyle changes. While the Centers for Medicare and Medicaid (CMS) launched one experimental effort in 2015 to improve outcomes for kidney patients as part of the Affordable Care Act, that project now remains in limbo along with the rest of Obamacare under the current administration.

Because Medicare pays for each treatment, providers have an incentive to perform as many sessions as possible and on as many patients as they can find, even if it's not in the patient's best interest.

A second way current policy favors putting and keeping kidney patients on dialysis is by discouraging transplants – albeit perhaps unintentionally. Under current law, Medicare pays for only 36 months¹⁸ of immunosuppressant medication after transplant, even though the one-year cost of these drugs is only about a third of the cost of one year of dialysis – and transplant¹⁹ patient survival rates are

much higher than survival rates for people on dialysis.²⁰ The loss of immunosuppressant coverage means some patients – and low-income patients in particular – will lose their transplants and end up back on dialysis. For others, the prospect of losing coverage might be enough to prevent them from pursuing a transplant in the first place.

The most pernicious aspect of current policy, however, is the "fee-for-service" payment structure for dialysis, which has turned the treatment of kidney failure into a volumecentered business aimed at keeping dialysis clinics running. Because Medicare pays for each treatment, providers have an incentive to perform as many sessions as possible and on as many patients as they can find, even if it's not in the patient's best interest. "You fill up a facility with so many stations; you make sure somebody is sitting in each of those chairs around the clock," as Dennis Cotter, president of the Medical Technology and Practice Patterns Institute, told the Washington Monthly. "It's the Henry Ford production model."

At the same time, the amount Medicare pays for dialysis is too low for any providers — other than the largest providers with the greatest economies of scale — to survive.

While the number of for-profit dialysis clinics has continued to grow, the share of dialysis clinics that were nonprofit fell by 3 percent between 2010 and 2014, according to MedPAC, potentially resulting in fewer choices for consumers, less competition, and, as a result. less innovation in treatment.²¹

None of this is good news for the federal budget, but it's especially bad news for patients. For instance, one potential consequence of the current bias toward dialysis is that patients



might be getting put on dialysis before they need to be. According to MedPAC, the share of patients on dialysis with "higher levels of residual kidney function" – i.e., with still-functioning kidneys – has grown from 13 percent to 43 percent since 1996.²² MedPAC concludes that these data "suggest a trend toward initiating dialysis earlier in the course of chronic kidney disease" even though, as the agency also notes, research shows early dialysis is "not associated with improved survival or clinical outcomes."

Experience with dialysis also makes patients less likely to be successful kidney transplant patients — if they are told about transplant as an option at all. Because dialysis centers are paid per treatment, "losing" someone to transplant also means losing the revenue stream associated with that patient. This creates perverse incentives for dialysis centers to do a poor job on transplant education — which can particularly disadvantage lower-income and minority patients — or even to keep patients on dialysis deliberately.

The better approach is for the federal government to reinvest some of the money it spends on dialysis treatment toward kidney disease prevention and lifestyle coaching.

Though African-Americans are nearly four times more likely to develop kidney failure than whites,²³ they are also much less likely than whites to receive kidney transplants.²⁴ Perhaps not coincidentally, dialysis centers tend to be clustered in lower-income, heavily minority areas. In Washington, DC, for example, the vast majority of the city's 23 clinics²⁵ are clustered in the northeast and southeastern parts of the city rather than in its affluent northwest guadrant.

THE RIGHT APPROACH TO KIDNEY DISEASE

Cleaning up the dialysis industry's practices will certainly help improve patients' lives in the short term, which is why efforts such as the California ballot initiative are important for spotlighting a corner of U.S. healthcare policy that's generally gone ignored. Lasting reform, however, must start at the top, with Medicare.

Here's what government should do:

Emphasize prevention:

The problem with the current system of kidney disease treatment is that it's based on an antiquated fee-for-service approach, where Medicare pays dialysis centers per treatment (\$232.37 in 2017).²⁶ Because dialysis providers do not get reimbursed unless a patient is in the chair, all incentives are aligned to keep those chairs filled. The current system does not incentivize kidney disease prevention, nor does it incentivize improving access to kidney transplants, which are the ideal treatment for kidney failure.

The better approach is for the federal government to reinvest some of the money it spends on dialysis treatment toward kidney disease prevention and lifestyle coaching. Many of the precursors to ESRD - hypertension, diet, pre-diabetes, etc. - can be managed through medication and lifestyle changes. The byzantine fee-for-service model still does not emphasize prevention. If the government could better align outcomes with reimbursement, it may encourage primary care providers to coach their patients about weight and lifestyle choices. Though Medicare does reimburse for weight loss counseling, the fee is too low and would only target people (seniors) already enrolled in Medicare. The whole system – including Medicare, private payers and Medicaid managed care – needs to reward early intervention and prevention.

Enhance education:

Antiquated fee-for-service reimbursement also creates an incentive to get patients in the chair rather than steer them toward in-home dialysis options that are far preferable to going to centers or getting kidney transplants. While there are in-home devices for dialysis that make it much easier for people to maintain regular work and lifestyles, only 9.3 percent of dialysis patients use these devices.²⁷ This is partly because Medicare only reimburses providers a one-time fee of \$95.60 to train patients how to use these devices.²⁸ Even though evidence shows that ESRD patients who use at-home devices have fewer complications associated with dialysis and fewer visits to the emergency room, current Medicare payment policy still incentivizes in-person dialysis centers.

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Provide lifetime reimbursement for immunosuppressant medications:

Medicare also covers transplants and the first three years of immunosuppressant drugs, required to maintain a successful transplant. But when the transplant centers and the groups that manage the kidney waitlists consider transplant candidates for kidneys, they also consider the likelihood that patients will continue taking the lifesaving immunosuppressant medication.²⁹ The reality is, wealthier, employed people are more likely to be able to afford the drugs after the Medicare coverage expires. The risk that poorer people could not afford



the drugs makes them less likely to receive a kidney from the waitlist, even though transplants are more cost-efficient in the long run. For each patient on dialysis, the government spent \$87,638 in 2014.³⁰ The cost of one year of the needed immunosuppressant drugs? Roughly one-third of that amount. Lifetime reimbursement for immuno-suppressant medications would help level the field and improve access to transplants.

Promising developments deserve a boost in investment to put them on the fast track.

Increase innovation:

Increasing access to transplants cannot, however, solve the problem of treating patients with kidney failure. In 2014, there were just 17,914 kidney transplants performed in the United States – while 88,231 people languished on the waitlist.³¹ One way to tackle that problem is to speed research and development for devices that bypass the shortage of organs. For example, researchers have been working on an artificial implantable kidney for the past 20 years, perhaps one consequence of the fact that the federal government currently pays about 50 times more in dialysis than it spends on kidney disease research.³²

Promising developments deserve a boost in investment to put them on the fast track. For instance, the Kidney Project is raising funds for preclinical studies of an implantable device

that uses the body's blood pressure to replicate the functions of a kidney. Human trials of the artificial kidney prototype are expected to begin soon. While these artificial kidneys may be more expensive than a transplant initially, this shouldn't hinder government investment in them. Many people wait 5-10 years to get a live kidney transplant, if they get one at all. The cost of dialysis, infections, and lost productivity would likely cost more than an artificial kidney in the long run.

CONCLUSION

The government must reform its approach to chronic kidney disease – not just for the sake of kidney failure patients now enduring the ordeal of dialysis, but for the more than 30 million Americans diagnosed with kidney disease in some form. Absent change, the budgetary burden of kidney disease, along with rates of diabetes and hypertension, the two conditions most linked to kidney disease – will only continue to climb. According to the U.S. Renal Data System, Medicare spending on ESRD rose from \$18 billion to \$34 billion from 2004 to 2015 33

If the government can incentivize prevention
– including vigilant pre-diabetes monitoring,
needed social supports, and early intervention
(and innovation) – it could help these patients
avoid the conditions that lead to kidney failure
and save the Medicare program billions annually.



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