Evaluating a Patient-Centered Medical Home for Patients Receiving Dialysis for Kidney Disease

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What was the research about?
In kidney disease, the kidneys don't work well to remove waste from the blood. Some people with kidney disease have end-stage kidney disease, or kidney failure. These patients have lost all or nearly all of their kidney function. Many patients with kidney failure receive dialysis, a treatment with a machine that cleans the blood. Most often, patients receive dialysis at a dialysis center three times each week.

A dialysis care team usually has kidney disease specialists and staff but no primary care providers. Adding primary care providers to the dialysis team might improve care. The research team wanted to learn whether adding a primary care doctor, a nurse coordinator, a pharmacist, and a community health worker to the dialysis team would improve the quality of life of patients with kidney failure. The team called this approach a patient-centered medical home for kidney disease, or PCMH-KD. The team looked at how patients' quality of life changed with care from a PCMH-KD after 18 months.

What did the research team do?
The research team used a survey to ask patients about their quality of life when the study started. The team surveyed patients again after 6, 12, and 18 months of receiving care from a PCMH-KD. The survey asked about the patients' symptoms and their physical and mental health. It asked patients how well they were able to perform daily activities with their disease. The survey also asked patients whether they had a personal doctor. The team looked at changes in patients' responses to the survey over time.

Who was in the study?
The study included 175 patients with kidney failure who received dialysis treatments at one of two dialysis centers in the Chicago area. The average age of the patients was 54. Of the patients in the study, 97 percent were African American or Hispanic. Patients also had other health problems: 82 percent had high blood pressure and 53 percent had diabetes.

What were the results?
Patients reported having better quality of life after receiving care from the PCMH-KD. After 18 months, patients had better mental health. They also felt that kidney disease affected their daily activities less. Patients' physical health and symptoms improved in the first six months and then remained the same without further improvement.

Compared with before the study, more patients said they had a doctor they considered their personal doctor after receiving care from a PCMH-KD.

What were the limits of the study?
The study didn't assign patients by chance to receive either care from the PCMH-KD or regular care. Instead, the team looked at the same patients before and after receiving care from the PCMH-KD. Results from the study could be due to reasons other than receiving care from the PCMH-KD. The PCMH-KD was costly to
deliver. As a result, the study took place at only two dialysis centers. Results may be different for other centers or in other places.

Future research could compare care received from the PCMH-KD with regular care at multiple dialysis centers. Future studies could explore ways to deliver care similar to the PCMH-KD at a lower cost.

**How can people use the results?**

Dialysis centers may want to consider adding primary care providers to the care team, like the PCMH-KD, to improve care for patients with kidney failure.

*To learn more about this project, visit pcori.org/Hynes061.*