

Data-based Recommendations for Dialysis, CKD Screening

Q I've received mixed messages about whom to screen for chronic kidney disease (CKD). The US Preventive Services Task Force (USPSTF) recommends screening only patients at high risk, but kidney experts advise screening everyone. Who is right? What does the data show?

In 2012, the USPSTF stated that there was insufficient evidence to assess the benefit, or harm, of regularly screening asymptomatic adults for CKD.¹ Other expert medical panels have come to this conclusion as well, and therefore only recommend screening high-risk patients.²

The National Kidney Foundation (NKF) encourages clinicians to assess all patients for *risk factors* of CKD. Diabetes and hypertension are strongly established risk factors for kidney disease; others include family history of kidney disease; cardiovascular disease; obesity; and older age.

If a patient is at risk for CKD, the NKF recommends testing serum creatinine levels to estimate glomerular filtration rate and testing urine for protein (microalbuminuria or macroalbuminuria).



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These tests are readily accessible in a primary care setting. It should be noted that one-time testing of serum creatinine and/or urine has not been studied for sensitivity or specificity in the diagnosis of CKD. Diagnosis should be based on decreased renal function or kidney damage occurring over a three-month span.³

In May 2016, Canadian researchers published results from the See Kidney Disease Targeted Screening Program for CKD, comparing CKD screening in the general population with a targeted, at-risk individual popula-

tion.⁴ The study, which included more than 6,000 participants, revealed a higher rate of unrecognized CKD in the at-risk population than in the general population (21.9% and 14.7%, respectively).

These findings support the idea that screening at-risk patients identifies more cases of CKD than screening the general patient population does.⁴ Early diagnosis of CKD, through recognition of risk factors, provides an opportunity to decrease complications and manage conditions that contribute to the progression of renal disease.^{2,3} —RVR

Renal Consult is edited by **Jane S. Davis, CRNP, DNP**, a member of the *Clinician Reviews* editorial board, who is a nurse practitioner in the Division of Nephrology at the University of Alabama at Birmingham and is the communications chairperson for the National Kidney Foundation's Council of Advanced Practitioners (NKF-CAP); and **Kim Zuber, PA-C, MSPS, DFAAPA**, a semi-retired PA who works with the American Academy of Nephrology PAs and is a past chair of the NKF-CAP. This month's responses were authored by **Rebecca V. Rokosky, MSN, APRN, FNP**, who practices at the Renal Associates Clinical Advancement Center in San Antonio, Texas, and **Tricia A. Howard, MHS, PA-C, DFAAPA**, Associate Professor and Assistant Program Director in the PA Program at South University in Savannah, Georgia.

Q I work in a cardiology practice. Recently, a patient on dialysis mentioned that her nephrology practitioner recommended either home therapy or nocturnal dialysis. Why would someone

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recommend these, and what are the differences between home, nocturnal, and regular daytime dialysis?

Patients usually require dialysis when 90% or more of their renal function is lost.⁵ This can happen acutely or result from a chronic process. Dialysis performs many of the functions of a kidney, such as removing waste and fluid buildup that damaged kidneys cannot. It also helps maintain electrolyte balance.

There are several forms of hemodialysis including home, in-center, and nocturnal; the most frequently used is in-center hemodialysis.⁵ Patients on in-center hemodialysis visit the center three times a week, and their treatments last from three to five hours; the nationwide average is four hours. These patients have very restricted schedules and must maintain their appointments with limited flexibility. Food, drinks, and non-medical personnel may not be allowed in the treatment area. Between treatments, patients must follow a diet that restricts fluid, sodium, and potassium intake.

Home dialysis has become a popular alternative, since it may be done in a location and at a time that is convenient for the patient. With more flexibility, many patients are able to continue working and feel like they have a more “normal” life. Types of home dialysis include home hemodi-

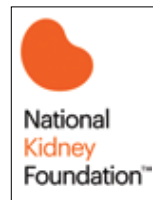
alysis (HHD) or peritoneal dialysis (PD). A relative or friend may need to assist the patient during HHD, which is undergone more frequently (between five and seven days per week) and for a shorter duration of time than in-center dialysis. PD is done every day, either at night or multiple times throughout the day. Although no partner is needed for PD, a medical provider is available by phone to address any concerns that may arise during treatment.

Nocturnal hemodialysis is similar to daytime in-center hemodialysis, but it occurs while the patient is asleep. The treatment duration is longer (an average of eight hours per treatment). The slower blood flow allows for gentler dialysis. Patients who undergo nocturnal hemodialysis have higher survival and lower hospitalization rates, with better phosphorus control and blood pressure.⁶ This is attributed to the slower removal of excess fluid and more effective clearance of toxins.

So, why is your patient being encouraged to consider home or nocturnal dialysis? Studies have shown that for the cardiac patient, slower, gentler dialysis is preferable.⁷ The clinician who recommended it has the patient's best interest in mind. —**TAH** **CR**

REFERENCES

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The National Kidney Foundation Council of Advanced Practitioners' (NKF-CAP) mission is to

serve as an advisory resource for the NKF, nurse practitioners, physician assistants, clinical nurse specialists, and the community in advancing the care, treatment, and education of patients with kidney disease and their families. CAP is an advocate for professional development, research, and health policies that impact the delivery of patient care and professional practice. For more information on NKF-CAP, visit www.kidney.org/CAP

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