When to Start Dialysis
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Q I sent a patient with a glomerular filtration rate (GFR) of 15 mL/min to nephrology to start dialysis. He came back to me and said they don’t start dialysis at 15. When do you start? Why?

There is considerable variation in the timing of dialysis initiation. Research suggests that sometimes earlier is not better.

IDEAL, a randomized controlled trial conducted in Australia and New Zealand, evaluated the advantages and disadvantages of earlier versus later dialysis initiation. Patients were randomly assigned to start any type of dialysis when their GFR was 8 or 11 mL/min. The results indicated that starting dialysis in a patient with a higher GFR did not lower the mortality or morbidity rate but did increase costs and complications (mostly for vascular access).

Based on these findings, most of us start dialysis in a patient who has a GFR < 10 mL/min and symptoms of kidney failure. These include a metallic taste in mouth, weight gain (usually due to edema) or loss (cachexia), feeling “poorly,” hard-to-control hypertension, shortness of breath, confusion (uremic brain), odor, skin color changes, and insomnia. Symptomatic patients can be started on dialysis at a higher GFR (usually ≤ 18 mL/min), but there are many hoops to jump through with Medicare.

However, IDEAL was conducted outside the United States and included very few elderly (age > 75) patients with chronic kidney disease. In 2018, Kurella and colleagues published a study that analyzed age and kidney function in a US veteran population. Their results showed that age should be included in the “when to start dialysis” calculation. For older veterans, starting dialysis earlier—at a GFR of 10 mL/min—increased survival. However, the researchers pointed out that in this age group, survival is in months (not years) and does not necessarily equate to quality of life.

In conclusion, there is no compelling evidence that initiation of dialysis based solely on measurement of kidney function leads to improvement in clinical outcomes. In otherwise asymptomatic patients, there is no reason to begin dialysis based solely on GFR; age and fragility need to be considered in the equation. Earlier is not always better, and for the elderly patient with multiple comorbidities, dialysis is not always a better choice. —TH

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. 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. Clinician Reviews is the proud recipient of NKF-CAP’s Nostradamus Award, recognizing the journal’s forethought and vision in supporting the contributions of Advanced Practitioners in nephrology.