When Can You Stop Dialysis?

When my patient was told that she needed dialysis, one of her first questions was, “For how long?” Which got me thinking: How often do dialysis patients regain kidney function? Are some more likely than others to be able to stop dialysis?

Diagnosis with end-stage renal disease (ESRD), which requires dialysis, is a life-changing event. Inevitably, patients ask about their chance of recovery and the likelihood of stopping dialysis. Studies have consistently demonstrated low rates of kidney recovery, ranging from 0.9% to 2.4%.1

According to the United States Renal Data System (USRDS), from 1995-2006 only 0.9% of ESRD patients regained kidney function resulting in the discontinuation of dialysis.2 In one study, Agraharkar and colleagues reviewed the medical records and lab results of patients discharged from a chronic dialysis unit and reported a 1% to 2% rate of kidney recovery. The researchers concluded that closer monitoring of residual kidney function was key to identification of patients with a greater chance of recovery.3 Chu and Folkert noted a recovery rate of 1.0% to 2.4% in a review of large observational studies, concluding that the underlying etiology of the kidney failure was the single most important predictor.4

Another study of approximately 194,000 patients who started dialysis between 2008-2009 demonstrated much higher rates of sustained recovery: up to 5%. This study showed that patients with kidney failure associated with acute kidney injury (AKI) were more likely to achieve recovery; patients with the AKI diagnosis of acute tubular necrosis had the highest rate of recovery.5 Similar studies of pediatric patients are rare. One European study followed 6,574 children who started dialysis before age 15. Within 2 years of dialysis initiation, just 2% showed kidney function recovery. This study also identified underlying etiology as an important predictor of recovery; ischemic kidney failure, hemolytic uremic syndrome, and vasculitis were associated with the greatest chance of recovery.5

Despite these recent findings, the prospect of discontinuation of dialysis with a diagnosis of ESRD remains very low. A patient’s underlying etiology influences the possibility of recovery; those with AKI tend to have the greatest chance, making close monitoring of residual kidney function essential in this population.3 —MSG

REFERENCES