

Clinicians' Update: Kidney Transplantation in End-Stage Renal Disease (ESRD)

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Kidney transplantation remains the optimal treatment option for the management of end-stage renal disease (ESRD), providing a longer life span, a better quality of life, and lower healthcare costs compared with long-term dialysis treatment. Given recent encouraging developments in the field, this issue of the *Rhode Island Medical Journal* is devoted to discussing clinical topics in transplantation relevant to the entire medical community.

Ongoing improvements in graft and patient survival in both deceased donor and living donor kidney transplants are reported annually. According to the Scientific Registry of Transplant Recipients (SRTR), the 10-year all-cause graft failure rate declined to 51.6% for deceased donor recipients who underwent transplantation in 2006 compared to 57.2% for transplantations performed in 1998. Ten-year death-censored graft failure similarly declined from 33.7% to 26.2% during this period. Living donor recipients who underwent transplantation in 2006 experienced a 10-year all-cause and death-censored graft failure of 34.2% and 18%, respectively.

These superior outcomes have been attributed to several factors, including better organ procurement and preservation, more effective immunosuppressive medications and medication regimens and improved selection of both recipients and donors. Equally encouraging is that more transplants are being performed than ever, with the number of donors and transplants performed in 2019 in the United States reaching all-time highs, mostly due to increases in deceased donors. This has resulted in a decline in the number of patients waiting for a kidney transplant for the fourth year in a row. Nevertheless, the mismatch between organ need and supply remains severe, with the average wait time to receive an organ offer between 3–5 years at most centers and even longer in some regions of the country.

It is evident that kidney transplantation should be sought for all medically and psychosocially qualified patients with ESRD. Recently, former President Donald Trump signed an Executive Order entitled *Advancing American Kidney*

Health, which calls for reform in the organ procurement and management system in the United States to significantly increase the supply of transplantable kidneys, with the goal of doubling the number of kidneys available for transplant by 2030. Additionally, the order encouraged the expanded support for living donors through compensation for costs such as lost wages and child-care expenses.

Rhode Island Hospital established its kidney transplant program in 1997 with the goal of providing convenient and quality services to our local community. We have since performed close to 1,500 kidney transplants, of which approximately 50% were derived through living donation. This success has required the active involvement of a wide range of healthcare specialists in a multidisciplinary approach. Our transplant team also emphasizes close consultation and cooperation with referring nephrologists and primary care physicians of transplant candidates as they progress from the initial evaluation to post-operative care and management. We hope this issue of RIMJ will help the Rhode Island medical community meet the ongoing challenges for patients with ESRD seeking successful kidney transplantation.

Guest Editor

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