Preemptive Kidney Transplantation: What's the Hold Up?

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The advantages, both medical and economic, of preemptive renal transplantation are well established.^{1,2} Preemptive transplantation is associated with improved patient and graft survival compared with transplantation after dialysis is initiated.³ Significant cost savings may also be realized with preemptive transplantation (ie, Medicare annual costs are estimated to be over US \$88 000 annually for hemodialysis compared to US \$34 000 annually for renal transplantation).⁴ Despite knowledge of these facts and despite published strategies to increase preemptive transplantation,^{5,6} only one third of living donor transplants in the United States are performed preemptively, and this proportion has not improved over the last 15 years.⁷ The morbidity of dialysis access surgeries or procedures is difficult to quantify but for patients who are destined to receive a living donor transplant, any complication can be hard to justify.

Preemptive transplantation requires a suitable living kidney donor and a recipient with renal disease sufficiently stable to remain off dialysis while both patient and donor go through a transplant programs' evaluation process. In this issue, Habbous and colleagues⁸ introduce the fairly obvious but, as yet, inadequately studied issue of missed opportunities for preemptive transplantation due to the length or timing of the donor evaluation process. Clinicians who carry out living kidney donor evaluations will not be surprised by the authors' finding of a mean donor evaluation time of 10.6 months for preemptive transplants. However, the finding that one third of recipients progressed to dialysis while their donor was under evaluation, with a mean evaluation time of 22 months, is clearly problematic and should focus our attention on the efficiency of our evaluation processes. If clinicians are going to minimize missed opportunities for preemptive renal transplantation, 2 related areas need to be addressed.

The first is a timely referral of renal patients who may be candidates for transplantation. The Habbous article studies transplant programs in Ontario, Canada, so the findings need to be interpreted while considering the differences in healthcare systems between Canada and the United States.

However, despite different health insurance systems, the proportion of living donor transplants performed preemptively is nearly identical in Canada and the United States.⁹ Disparities in access to care for different ethnic or socioeconomic groups have long been recognized and need our ongoing attention.¹⁰ The Habbous article and others have shown that Canada and the United States share similar inequities regarding living donor renal transplantation.¹¹ Transplant programs need to look at their own policies and determine if there are impediments to a timely referral (eg, mandatory cardiology assessments prior to referral, arbitrary BMI thresholds, and so on) and work with referring nephrologists to streamline the referral process. Transplant programs should also spend time on the education of patients and referring nephrologists to encourage kidney transplantation as a primary treatment for ESRD. Misconceptions regarding kidney transplantation remain prevalent (ie, dialysis is a prerequisite before transplantation, transplantation is a last resort after dialysis has failed, and so on) and should be countered with education initiatives.^{12,13} In Canada, transplant programs are situated only in large urban areas. For renal patients living in rural areas, the transplant evaluation often requires 2 travel days and a number of hotel nights. The logistics and costs for this travel are borne by the patients and represent an obvious hindrance to patients outside the major urban centers. The use of telehealth consultations to improve access to transplantation was recently reviewed and deserves further consideration by transplant programs.¹⁴

The second issue is the length of time to complete the living donor assessment. Donor candidates may self-refer to a transplant program well in advance of the recipient candidate's referral by their primary nephrologist. These donor candidates are typically put "on hold" until the recipient candidate's referral has been received as it is common practice evaluate donor and recipient candidates in parallel. Transplant clinicians may disagree on the wisdom of spending time and resources on donor candidate evaluations before knowing anything about the recipient's transplant candidacy. However, knowing that a suitable living donor is available can be a strong motivator to recipients and their nephrologists to move forward with the transplant evaluation. Donor candidates who complete the evaluation may be motivated to serve as anonymous or altruistic donors if their intended recipient is ultimately found not suitable for transplantation.

The donor evaluation has traditionally been the responsibility of the transplant program. The role of the recipient nephrologist has not been central to the donor assessment despite the unique position the nephrologist has for screening and educating potential donors.¹⁵ A Kidney Disease: Improving

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Global Outcomes working group has published guidelines on the evaluation of living kidney donors. The medical and laboratory aspects of this evaluation are amenable to completion in a short period.¹⁶ Clinicians who evaluate living donor candidates are required to outline the risks, both short and long term, of donor nephrectomy and should assess the candidate's understanding of the risks. They also need to assess the candidates' decision making for evidence of coercion, pressure, or ambivalence. The evaluation should take as long as necessary to properly address any of these issues. However, in most cases, the decision making is unambiguous, and candidates can fully understand the risks. These evaluations can be completed in a period of weeks rather than months. Historically, transplant programs have accepted lengthy donor evaluation periods so that donors may reflect on the information they receive and decide if donation is right for them. Many programs have feared coercing or pressuring donor candidates and have required candidates to initiate all testing and appointments as they move toward final approval. In reality, most donors have made up their minds well before meeting the clinicians and have used "moral decision making" rather than a reasoned assessment of risks and benefits.¹⁷ A period of reflection does not help most donors with their decision making. Rather, for many donors, it represents a frustrating delay that does not add any value to the evaluation. The article by Fellner and Marshall is nearly 50 years old but it remains completely relevant today and should be read by all clinicians evaluating living kidney donors.

Expedited clinical pathways for living kidney donor evaluations and improved coordination between transplant programs and referring nephrologists will improve the donors' experience, reduce a source of frustration among colleagues, and improve the rate of preemptive transplantation.

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