

NEPHROLOGY

NEWS & ISSUES

Balancing Economics & Quality in Renal Care

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Promoting pre-emptive or early kidney transplantation

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Kidney transplantation is the most cost-effective treatment for patients with stage 5 chronic kidney disease (CKD-5), in terms of reducing mortality and improving quality of life.¹ Despite these benefits, patients with kidney failure face reduced access to kidney transplantation, given the imbalance between the demand and supply of organs.²

Incident and prevalent patients on dialysis now confront increasingly longer waiting times and prolonged exposure to the burdens of kidney disease.² Not only does this result in a greater likelihood of morbidity and mortality on dialysis, but also may affect graft and patient survival post-transplantation.

The negative impact of pre-transplant dialysis on kidney transplantation makes time on dialysis an important, independent modifiable risk factor for kidney transplant outcomes.^{3,4} In fact, a large advantage of living donor kidney transplantation may be explained by time on dialysis, since the recipient of a deceased donor transplant with time on dialysis less than six months has equivalent graft survival to a living donor transplant recipient who waits on dialysis for more than two years prior to transplantation.⁴

Part of this negative cumulative effect can probably be reduced by early transplantation, e.g. transplantation without previous dialysis (pre-emptive transplantation) or transplantation early after initiation of dialysis.^{3,4} Unfortunately, only 2.5% of patients with stage 5 CKD undergo pre-emptive kidney transplantation.

To address this important aspect of practice, the National Kidney Foundation convened a Kidney Disease Outcomes Quality Initiative conference in March 2007 in Washington, D.C. Fifty-two participants representing transplant centers, dialysis providers, and payers drafted a set of guidelines and principles to promote early transplantation among patients with stage 5 CKD.⁵

One can point to a model for such early transplant efforts by examining the Fistula-First National Vascular Access Improvement Initiative, in which arteriovenous fistulae are recommended as the first choice for vascular access in patients requiring hemodialysis. One of the foundations of the Fistula First initiative is patient education. Similarly, an emphasis on early transplantation would work to provide comprehensive education to at-risk individuals regarding

the benefits of early transplantation as the first modality for kidney replacement therapy. The conference attendees suggested that one way to improve the likelihood of offering early transplantation for patients was to enhance both early nephrology care and referral for transplantation before or at the same time as creation of vascular access. Efforts at increasing living donor transplantation should be encompassed within the emphasis on early transplantation, in particular, doubling the percentage of pre-emptive living donor transplants.

Early transplantation would require important patient-centered changes in clinical and organizational practices, including:

- ▶ Timely patient education for individuals progressing through stage 3 and 4 CKD regarding transplantation
- ▶ Appropriate referral to a transplant center to allow for early transplantation, and increased efficiency of evaluation and communication between transplant centers and referring physicians
- ▶ Improving knowledge among patients with CKD and physicians about the advantages of living donor transplantation
- ▶ Removing financial barriers to early transplantation

The creation of benchmarks to measure performance is also important. This should include nephrologists and dialysis providers (for pre-emptive referral and transplantation rates) and transplant centers (for evaluation time and pre-emptive transplant rates).

An increase in early kidney transplantation is laudable, but it is not without obstacles. More education of patients and providers is needed, whether through nephrology community programs, formal meetings, or patient and family-centered educational programs. This might include information about finances and transplantation, optimal candidacy and living donation. Transplant centers would also assume greater responsibility in education and training, and generation of policies, aimed at increasing living and pre-emptive transplantation—a recommendation consistent with the recently adopted Medicare “final rule” (<http://www.cms.hhs.gov/CFCsandCoPs/downloads/transcenterreg2007.pdf>).


The Consensus Conference also provided reviewed aspects of existing governmental policies and early trans-

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plantation, and the meeting participants offered up several suggestions to further stimulate interest in early transplantation, including:

- ▶ Extending eligibility for Medicare to patients with estimated glomerular filtration rates that place them at late stage 4 or early stage 5 CKD (i.e., e-GFR \leq 15-20 mL/min), and accelerated processing time for Medicare enrollment
- ▶ Supporting Part B premium reimbursement by third parties
- ▶ Acknowledging work and consonant reimbursement to nephrologists for post-transplantation care
- ▶ Extension of Medicare benefits for the life of the transplant
- ▶ Standardization of Medicaid coverage for kidney transplantation
- ▶ Higher reimbursement rates for dialysis units with higher case mix-adjusted transplant rates
- ▶ Funding for a national program to protect living donors from finan-

cial disincentives and health risks associated with donor nephrectomy

Given the importance of this issue, the Program Committee of the NKF 2009 Spring Clinical Meetings has organized a special symposium on early transplantation as part of the NKF meeting this year. Nationally-recognized experts will discuss policy and practical issues related to early transplantation. There certainly is a sense in the transplant community that an emphasis on early transplantation is logical and definitely benefits the patients that we serve. The scope of the challenge, to provide early transplantation to more patients, is very large even if the numbers at present are still small. The symposium at the NKF 2009 Spring Clinical Meetings will hopefully bring this issue even more into the mainstream of nephrology practice. 

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