



The High Risk Recipient

“A Bird in the Hand...”: Pediatric Kidney Live Donors vs. Deceased Donor for Primary Transplant: Pro

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Recent changes in UNOS allocation policy have reduced the waiting time for high quality deceased donor kidneys for pediatric recipients. Although this dramatically improves the possibility of preemptive transplantation for all pediatric patients with end-stage renal disease, there are still many advantages of a living donor compared to deceased donor renal transplant. A living donor transplant allows for much greater safety of the operation by having the ability to completely evaluate the donor and prepare the recipient for the scheduled operation. This is particularly important in cases that require preoperative conditioning such as plasmapheresis. The risks of disease transmission from the donor can be carefully assessed. The risk of delayed graft function is significantly less with a living donor. This may reduce the need for potent induction immunosuppression, which carries an increased risk for the development of infection and malignancy. The probability of a histocompatibility match is much greater with a living related donor. This may reduce the risk of sensitization in the event of graft failure.

Living donation should still be encouraged for pediatric renal transplant recipients to achieve the optimal outcomes.



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Pediatric Kidney Transplant Candidates are a diverse group, ranging from the smallest infants born without renal function, to large “adult-sized” adolescents with gradually declining GFRs. More than forty-five percent of pediatric recipients in the NAPRTCS database were 13 or over at the time of their transplant. The pediatric waiting list in June 2004 had 71% of the candidates age 11 or older with a total of 793 pediatric candidates of all ages. Due to the great difficulties of dialysis in children and the impact of renal failure on mental and physical development, time goals for pediatric transplant allocation were instituted. After a few years, the youngest children were waiting longer than their time goals more than 40% of the time. This led to the current pediatric kidney allocation policy that went into effect in August, 2005. Under this current policy, donors <35 yrs old are allocated to children after the local highly sensitized candidates. This resulted in an immediate increase in pediatric deceased donor transplantation, and a decrease in pediatric living donor transplantation.

Many transplant physicians acknowledge that they may receive a very young and good quality deceased donor organ offer for their pediatric candidates before a willing live donor can be fully evaluated. This has led many families to ask a very real question that may be difficult to answer medically or ethically - should we take the deceased donor kidney now and save the potential live donor until our child is no longer a child and will be waiting many years for a second transplant?

With the improving success of deceased donor grafts, especially from this very young donor population less than 35 years old, and the improving results from older live donor grafts, the old adage “a live donor graft is always better than a deceased donor graft” may be passé. The young deceased donor graft today, with the live donor ready and willing for a pre-emptive second transplant may prevent sensitization and lead to overall increased longevity of today’s pediatric kidney candidate.