National Kidney Paired Donation
Standard Acquisition Charge

Michael Rees, Laurie Reece, Susan Rees, Betty Crandall and Alan Leichtman
KPD and NDD Transplants in U.S.
KPD and NDD as % of LD in the United States
United States Top 20 LD Kidney Transplant Programs Ranked by KPD Performance
U.S. Kidney Transplant Programs 21-40
Ranked by KPD Performance
U.S. Kidney Transplant Programs
Ranked by KPD Performance

Transplant Center

Percentage

% KPD
U.S. Kidney Transplant Programs Ranked by KPD Performance

![Graph showing the percentage of kidney transplants for different transplant centers, with 1,000 transplants as the benchmark.](image_url)
Estimating the National Potential Utilization of KPD

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Brief Communication

Center-Level Utilization of Kidney Paired Donation

Discussion

In this national study of KPD utilization and dissemination in the United States, we have shown that, despite early growth in the number of KPD transplants, utilization of KPD remains more tightly clustered among a small number of centers than LDKT in general. From 2005 to 2008, KPD disseminated among a wider number of centers, but since 2008, dissemination has remained stagnant. Although most centers performed fewer than 1 KPD transplant per 100 LDKT-eligible patients, some centers performed KPD at much higher rates (as high as 8.8 KPD transplants per 100 LDKT-eligible patients). [If all transplant centers performed KPD at rates observed in the very high-performing centers, there would be an estimated additional 1099 live donor transplants per year facilitated through KPD.]

KPD provides a unique opportunity for safe, effective transplantation for patients with ABO or HLA incompatible donors. By finding compatible donors through KPD, outcomes of incompatible transplants are equivalent to those of compatible ones (17); without KPD, desensitization protocols are required, and outcomes from these protocols, while better than waiting for a compatible deceased donor or remaining on dialysis, are associated with a lower overall survival (18,19). Candidates with a compatible donor may also benefit from KPD by obtaining a kidney from a younger donor (20,21). Furthermore, KPD does not require the establishment of complex systems required for desensitization and rapid antibody characterization. In fact, with many networks available in the United States, any center that performs LDKT can register incompatible pairs for KPD. When participating in a network, pairs from small centers have the same probability of matching as pairs from larger
Estimating the National Potential Utilization of KPD

Center-Level Utilization of Kidney Paired Donation

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Although some centers performed KPD at much higher rates (as high as 8.8 KPD transplants per 100 LDKT-eligible patients), if all transplant centers performed KPD at rates observed in the very high-performing centers, there would be an estimated additional 10,999 live donor transplants per year facilitated through KPD.

donor (20,21). Furthermore, KPD does not require the establishment of complex systems required for desensitization and rapid antibody characterization. In fact, with many networks available in the United States, any center that performs LDKT can register incompatible pairs for KPD. When participating in a network, pairs from small centers have the same probability of matching as pairs from larger
KPD & NDD Transplants in U.S.
Target KPD Transplants

Number of Transplants

Year


- Kidney Paired Donation
- Non-Directed Donation
Barriers to KPD

Brief Communication

Center-Level Utilization of Kidney Paired Donation

Perhaps one of the most challenging barriers to KPD in the United States at this time is financial (6,24,25). As the donor is not compatible with the intended recipient, and as such the kidney will not be transplanted directly into the intended recipient, reimbursement for donor evaluation is challenging, because the identity of the ultimate recipient is unknown at the time of evaluation (25). In addition, there is no standardized mechanism to pay for donor travel or shipment of live donor kidneys (24). A standardized national framework for KPD administration has been proposed, based on a Standard Acquisition Charge Model (25); however, feasibility of such a model would likely require a single national KPD system, as has been suggested by the private payers (26).

Of donor kidneys and the combination of KPD and desensitization. Moreover, because the chance of a match per user increases with the size of the registry, our results may actually underestimate the attainable rate of KPD in the United States.

Finally, we only evaluated actual KPD transplants rather than efforts made by centers to implement KPD. It is possible that there is currently more KPD potential than reflected in our study, but that there is a lag before these steps taken to implement KPD will have led to matched pairs and a noticeable increase in KPD at that center. In other words, the low rates of KPD at most centers observed in our study may increase in the near future due to actions already taken by transplant programs. However,
Center-Level Utilization of Kidney Paired Donation

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Kidney Paired Donation: A Payer Perspective

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Introduction

A conference on kidney paired donation (KPD) was held in Philadelphia on October 27, 2010. The topic of this meeting was the clinical and financial importance of establishing a system of matching willing kidney donors and eligible recipients, and the current progress being made toward achieving that goal. A major point of discussion was the consideration of using a national pool of willing donors. The proposed system can be managed best through a single administrative structure that takes advantage of uniform donor evaluation and management with a standardized organ acquisition charge that recognizes that the current lack of standardization contributes to delays in transplantation and payment to programs. This program will use the existing Organ Procurement

The case for expanding the use of living donor kidney transplantation has been made elsewhere (1,2). We support this effort as an appropriate means of decreasing the
Payers support a KPD SAC

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consider this to be an important issue and hope this serves to shape the debate and move toward an ultimate course of action.

The case for expanding the use of living donor kidney transplantation has been made elsewhere (1,2). We support this effort as an appropriate means of decreasing the
Dynamic Challenges Inhibiting Optimal Adoption of Kidney Paired Donation: Findings of a Consensus Conference


A consensus conference was convened March 29–30, 2012 to address the dynamic challenges and complexities of KPD that inhibit optimal implementation. Stakeholders considered donor evaluation and care, histocompatibility testing, allocation algorithms, financing, geographic challenges and implementation strategies with the goal to safely maximize KPD at every transplant center. Best practices, knowledge gaps and research goals were identified and summarized in this document.
Dynamic Challenges Inhibiting Optimal Adoption of Kidney Paired Donation: Findings of a Consensus Conference

KPD Financial Challenges
The following criteria were used to evaluate each model: (1) donor expenses must be ultimately paid for by the recipient center; (2) predictability; minimizing center-to-center variations in donor costs charged to recipient centers; (3) portability; minimizing barriers to professional reimbursement for donor nephrectomy posed by recipient payer contracts; (4) full recovery of donor evaluation, surgery, follow-up care, and complication treatment costs by donor centers; (5) compliance with Centers for Medicare & Medicaid Services (CMS) rules; and (6) administrative ease (eliminating individual negotiations for every transplant). There was a consensus that a national KPD SAC would best achieve these criteria (Table 5).

Financial responsibility for donor complications remains an unresolved challenge. CMS provides for the reimbursement of both professional and facility fees for donor complication costs by billing through the recipient’s Medicare number. The mechanism for reimbursement from commercial payers is less clear cut. The situation becomes increasingly opaque as time from donation increases. Therefore, provisions for time-limited, comprehensive insurance for donors’ complications should be developed.
Dynamic Challenges Inhibiting Optimal Adoption of Kidney Paired Donation: Findings of a Consensus Conference

KPD Financial Challenges

There was a consensus that a national KPD SAC would best achieve these criteria (Table 5).

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National Consensus Conference
Advocates for KPD SAC

Meeting Report

Dynamic Challenges Inhibiting Optimal Adoption of Kidney Paired Donation: Findings of a Consensus Conference

M. L. Melcher\textsuperscript{a}, C. D. Blosser\textsuperscript{b}, L. A. Baxter-Lowe\textsuperscript{c}, F. L. Delmonico\textsuperscript{d,e}, S. E. Gentry\textsuperscript{f}, R. Leishman\textsuperscript{g}, G. A. Knoll\textsuperscript{h}, M. S. Leffell\textsuperscript{i}, A. B. Leichtman\textsuperscript{j}, D. A. Mast\textsuperscript{k}, P. W. Nickerson\textsuperscript{l}, E. F. Reed\textsuperscript{m}, M. A. Rees\textsuperscript{n}, J. R. Rodrigue\textsuperscript{o}, D. L. Segev\textsuperscript{p}, D. Serur\textsuperscript{q}, S. G. Tullius\textsuperscript{r}, E. Y. Zavala\textsuperscript{s} and S. Feng\textsuperscript{e,*}

Table 5: The advantages and unique challenge of a National Standard Acquisition Charge for KPD

\begin{tabular}{|l|}
\hline
\textbf{Advantages} \\
\hline
\textbullet Accounts for all donor evaluation, surgery and follow-up costs as well as KPD administrative costs \\
\textbullet Mitigates upfront financial risks of donor evaluations; reduces financial disincentives associated with the evaluation of multiple donors \\
\textbullet Evenly distributes costs to beneficiaries, those centers that perform KPD transplants \\
\textbullet Addresses financial challenges introduced by geographic disparities \\
\textbullet Overcomes financial challenges related to out of network donors for commercially insured patients and out of state donors for Medicaid patients \\
\hline
\textbf{Challenges} \\
\hline
\textbullet Infrastructure does not yet exist \\
\hline
\end{tabular}
Benefits of Participation

1. Mitigates upfront financial risk to participating in KPD
2. Evenly distributes costs to beneficiaries
3. Accounts for all costs associated with KPD
4. Overcomes out of network challenges
5. Improves access for Medicaid patients
6. Creates more opportunities for transplantation
7. Eliminates need for center to center negotiation
8. Avoids volume disparity of center specific SAC
Volume Disparity creates a Financial Barrier to KPD

Transplant Centers A and B in 2-way swap

*Payment by CTC SAC Model*

<table>
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<th>Transplant Center A</th>
<th>Transplant Center B</th>
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<td>Incompatible Recipients</td>
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<tr>
<td>Recipients with 1 donor</td>
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<tr>
<td>Recipients with 2 donors</td>
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<tr>
<td>Recipients with 3 donors</td>
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Volume Disparity creates a Financial Barrier to KPD

Transplant Centers A and B in 2-way swap

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<tr>
<td>Cost per KPD Transplant</td>
<td>$12,000</td>
<td>$30,000</td>
<td>$17,143</td>
</tr>
</tbody>
</table>
Benefits of Participation

1. There will be no more negotiating with every KPD
2. You’ll have a KPD SAC you can put on your cost report
3. Your center will be paid $20,000 as a facility fee for a donor nephrectomy
4. Excess donor evaluation costs will be subsidized by $15,000 reimbursement for the average cost of 4 additional donor evaluations.
5. You will be paid $3,500 as the donor nephrectomy surgeon
6. You will be paid $2,000 as the donor nephrectomy anesthesiologist
7. You’ll be helping us develop a method most agree is the best way to overcome the financial barriers that currently limit patient access to kidney paired donation.
8. With the $2M AHRQ grant, the APD’s administrative services will continue to be delivered for free.
9. The APD has completed more than 120 KPD kidney transplants using this mechanism.
Future Directions

Challenges remain for allowance of full KPD costs on Transplant Center Cost Reports:

1. KPD facilitator administrative costs (i.e. APD, NKR)
2. Professional nephrectomy services
3. Follow-up care of the donor
4. Complication treatment costs by donor centers
Thank you

1. Alan Leichtman
2. Laurie Reece
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4. Betty Crandall
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6. Brent Sandmeyer and Michael Hagan - AHRQ
7. Laurence Wilson – CMS
8. Walter Graham – UNOS
9. APD Board of Directors
10. KPD SAC Oversight Committee
11. Our Commercial Payer Partners
12. Participating transplant centers
How to contact us

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