Proposal to Substantially Revise the National Kidney Allocation System

Sponsored by: The OPTN Kidney Transplantation Committee

John J. Friedewald, MD
Chair
Current System Limitations

- Mismatch in graft/patient survival
- Access variability due to geography and biology
- High discard rates
The Growing Waiting List

Kidney Waiting List and Transplants

Number of Kidney Candidates on the Waiting List
Deceased Donor Transplants per year
Living Donor Transplants per year
All Kidney Transplants per year

OPTN data as of September 1, 2012
Over time, waiting time has become the primary driver of kidney allocation
- Histocompatibility components have diminished over time

This overreliance led to a system that does not accomplish any goal other than transplanting the candidate waiting the longest
- Doesn’t recognize that not all can wait the same length of time
- Fails to acknowledge different needs for different candidates (e.g., speed over quality)
Proposed Policy Objectives

- Make the most of every donated kidney without diminishing access
- Promote graft survival for those at highest risk of retransplant
- Minimize loss of potential graft function through better longevity matching
- Improve efficiency and utilization by providing better information about kidney offers
Proposed Policy Objectives

- Provide comprehensive data to guide transplant decision making
- Reduce differences in access for ethnic minorities and sensitized candidates
## The course of policy development

<table>
<thead>
<tr>
<th>Date</th>
<th>Sentinel Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>Board requests review of kidney allocation system; public hearings held</td>
</tr>
<tr>
<td>2004</td>
<td>Board directs investigation of benefit use in a kidney allocation system</td>
</tr>
<tr>
<td>2007</td>
<td>Public Forum held in Dallas; main topic LYFT</td>
</tr>
<tr>
<td>2008</td>
<td>RFI released: main topics KDPI/LYFT</td>
</tr>
<tr>
<td>2009</td>
<td>Public Forum held in St. Louis; main topics LYFT/KDPI</td>
</tr>
<tr>
<td>2009</td>
<td>Donor/recipient age matching reviewed as possibility</td>
</tr>
<tr>
<td>2011</td>
<td>Concept document released: main topics EPTS/age matching/KDPI</td>
</tr>
<tr>
<td>2011</td>
<td>Age matching no longer under consideration</td>
</tr>
<tr>
<td>2012</td>
<td>Public comment proposal</td>
</tr>
</tbody>
</table>
New Registrants by Year and Age Group

OPTN
Determining a Balance: Equity and Utility
<table>
<thead>
<tr>
<th></th>
<th>National Sharing +LYFT</th>
<th>LYFT</th>
<th>Age Matching+ Longevity Matching</th>
<th>Age Matching</th>
<th>Longevity Matching</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gain in life years</td>
<td>34,026</td>
<td>25,794</td>
<td>15,223</td>
<td>14,044</td>
<td>8,380</td>
</tr>
<tr>
<td>Transplants to 50+ year old recipients</td>
<td>10%</td>
<td>29%</td>
<td>46%</td>
<td>45%</td>
<td>52%</td>
</tr>
</tbody>
</table>

Evolution of Proposal

**Gain in life years**

**Transplants to 50+ year old recipients**

**National Sharing +LYFT**

**LYFT**

**Age Matching+ Longevity Matching**

**Age Matching**

**Longevity Matching**
Proposal Summary

- The existing kidney allocation system has many strengths but needs to be improved.

- We are proposing a series of improvements to enhance the long-term benefit of kidney transplantation, make better use of available kidneys, and increase transplant opportunities for hard-to-match candidates.

- The way we match kidneys will not change for the majority of kidneys. Candidates who will see potential changes should see benefits in terms of better long-term kidney function or a possible reduction in waiting time for a transplant.
Proposal Summary

- The age of the candidate is not the sole determinant of transplant priority. While the proposed policy may affect some proportion of patients who receive a transplant, it will continue to provide transplants for people of all ages.

- We used informed commentary from interested parties to guide the development of this final proposal.
Preview of Expected Outcomes

- New system forecasted to result in:
  - Approximately 8,000 additional life years gained annually
  - Improved access for moderately and very highly sensitized candidates
  - Improved access for ethnic minority candidates
  - Comparable levels of kidney transplants at regional/national levels
SYSTEM DESIGN
Overview of proposed policy

Current

Kidney becomes available
- SCD
- ECD
- DCD & ECD
- DCD & SCD

Proposed

All allocation sequences to be based on KDPI

- KDPI <= 20%
- KDPI 21 - 34%
- KDPI 35 - 85%
- KDPI > 85%
Kidney Donor Profile Index (KDPI)

KDPI Variables

- Donor age
- Height
- Weight
- Ethnicity
- History of Hypertension
- History of Diabetes
- Cause of Death
- Serum Creatinine
- HCV Status
- DCD Status

KDPI values now displayed with all organ offers in DonorNet®
Sequences based on KDPI

- Kidney becomes available
- KDPI <= 20% (Sequence A)
- KDPI > 20% but < 35% (Sequence B)
- KDPI >= 35% but <= 85% (Sequence C)
- KDPI > 85% (Sequence D)
Sequences based on KDPI

- **Sequence A**
  - KDPI $\leq 20\%$

- **Sequence B**
  - KDPI $> 20\%$ but $< 35\%$

- **Sequence C**
  - KDPI $\geq 35\%$ but $\leq 85\%$

- **Sequence D**
  - KDPI $> 85\%$
<table>
<thead>
<tr>
<th>Sequence A</th>
<th>Sequence B</th>
<th>Sequence C</th>
<th>Sequence D</th>
</tr>
</thead>
<tbody>
<tr>
<td>KDPI &lt;=20%</td>
<td>KDPI &gt;20% but &lt;35%</td>
<td>KDPI &gt;=35% but &lt;=85%</td>
<td>KDPI&gt;85%</td>
</tr>
<tr>
<td>Highly Sensitized 0-ABDRmm (top 20% EPTS)</td>
<td>Highly Sensitized 0-ABDRmm Prior living donor Local pediatrics Local top 20% EPTS 0-ABDRmm (all) Local (all) Regional pediatrics Regional (top 20%) Regional (all) National pediatrics National (top 20%) National (all)</td>
<td>Highly Sensitized 0-ABDRmm Prior living donor Local pediatrics Local adults Regional pediatrics Regional adults National pediatrics National adults</td>
<td>Highly Sensitized 0-ABDRmm Prior living donor Local Regional National</td>
</tr>
</tbody>
</table>

Once in a category, candidates are rank ordered according to points

OPTN
Major Proposal Components

- Replace SCD/ECD with KDPI
- Add longevity matching
- Increase priority for sensitized candidates/CPRA sliding scale
- Include pre-registration dialysis time
- Incorporate A₂/A₂B to B
- Base pediatric priority on KDPI
- Eliminate payback system
- Eliminate variances
Deliberative Process

<table>
<thead>
<tr>
<th>PC Proposal</th>
<th>Feedback</th>
<th>Review</th>
<th>Board Proposal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposal as sent out for public comment</td>
<td>Comments received</td>
<td>Committee review/discussion of feedback</td>
<td>Revisions (if any) based on feedback</td>
</tr>
</tbody>
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# Deliberative Process

<table>
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</table>
REPLACE ECD/SCD WITH KDPI
Replace SCD/ECD with KDPI

- Current system divides kidneys into two categories
- Function of ECD/SCD kidneys overlaps
- A continuous metric would better describe kidney function
- KDPI has been available in DonorNet\textsuperscript{sm} for over 1 year
Overlap between SCD and ECD kidneys

This leads to changes in physician behavior and the break down of the ECD list concept.
Kidney Donor Profile Index (KDPI)

KDPI Variables

- Donor age
- Height
- Weight
- Ethnicity
- History of Hypertension
- History of Diabetes
- Cause of Death
- Serum Creatinine
- HCV Status
- DCD Status

KDPI values now displayed with all organ offers in DonorNet®
Replace SCD/ECD with KDPI

- Concern that KDPI will lead to increased discards and harder to place kidneys
- Request to limit consent requirement to only highest KDPI kidneys
No increase in discard rates after displaying KDPI in DonorNet®
Replace SCD/ECD with KDPI

- Consent requirement limited to kidneys with KDPI scores >85%
ADD LONGEVITY MATCHING
Proposed Classification: *Longevity Matching*

- Estimated Post-Transplant Survival (EPTS)
  - Candidate age, time on dialysis, prior organ transplant, diabetes status
  - More predictive than age alone, uses only 4 variables to limit confusion

- Top 20% of candidates by EPTS to receive kidneys matched on longevity (KDPI<20%)
  - Candidates can have an EPTS score in the top 20% even at age 50

- Applies only to kidneys with KDPI scores <=20% not allocated for multi-organ, very highly sensitized, or pediatric candidates
<table>
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<td>Highly Sensitized 0-ABDRmm Prior living donor Local Regional pediatrics Regional adults National pediatrics National adults</td>
<td>Highly Sensitized 0-ABDRmm Prior living donor Local Regional National</td>
</tr>
<tr>
<td>Prior living donor Local pediatrics</td>
<td>Local adults Regional pediatrics Regional adults National pediatrics National adults</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local top 20% EPTS 0-ABDRmm (all) Local (all) Regional pediatrics</td>
<td>Regional (top 20%) Regional (all) National pediatrics National (top 20%) National (all)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*All categories in Sequence D are limited to adult candidates*
KPSAM results by candidate age

The bar chart shows the percentage of candidates in different age groups for the years 2010, N1, and N4. The age groups are broken down as follows:

- <18
- 18-34
- 35-49
- 50-64
- 65+

The chart indicates the distribution of candidates on the waitlist and the proposal outcome for each age group across the years 2010, N1, and N4.
Comments on EPTS (n=16)

- Questions regarding degree of predictive ability of EPTS (c-statistic)
- Concerns that candidates will fluctuate in and out of the top 20% EPTS category
- Concern about use of age
## Relationship of EPTS and Age

### EPTS “Vignettes”: Top 20%

<table>
<thead>
<tr>
<th>Age</th>
<th>Yrs on RRT</th>
<th>DM</th>
<th>Prior Txp</th>
<th>EPTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>0</td>
<td>No</td>
<td>No</td>
<td>1%</td>
</tr>
<tr>
<td>25</td>
<td>0</td>
<td>No</td>
<td>No</td>
<td>1%</td>
</tr>
<tr>
<td>18</td>
<td>2</td>
<td>No</td>
<td>No</td>
<td>2%</td>
</tr>
<tr>
<td>25</td>
<td>5</td>
<td>No</td>
<td>No</td>
<td>5%</td>
</tr>
<tr>
<td>25</td>
<td>2</td>
<td>No</td>
<td>Yes</td>
<td>7%</td>
</tr>
<tr>
<td>40</td>
<td>0</td>
<td>No</td>
<td>No</td>
<td>8%</td>
</tr>
<tr>
<td>18</td>
<td>0</td>
<td>Yes</td>
<td>No</td>
<td>12%</td>
</tr>
<tr>
<td>25</td>
<td>0</td>
<td>Yes</td>
<td>No</td>
<td>12%</td>
</tr>
<tr>
<td>40</td>
<td>5</td>
<td>No</td>
<td>No</td>
<td>17%</td>
</tr>
<tr>
<td>50</td>
<td>0</td>
<td>No</td>
<td>No</td>
<td>18%</td>
</tr>
</tbody>
</table>

### EPTS Distribution by Candidate Age

<table>
<thead>
<tr>
<th>Age at Snapshot</th>
<th>N on WL (adults)</th>
<th>% on WL</th>
<th>% in EPTS Top 20</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-25</td>
<td>2,742</td>
<td>2.8</td>
<td>96.7%</td>
</tr>
<tr>
<td>26-35</td>
<td>8,256</td>
<td>8.4</td>
<td>80.6%</td>
</tr>
<tr>
<td>36-45</td>
<td>16,136</td>
<td>16.3</td>
<td>43.8%</td>
</tr>
<tr>
<td>46-55</td>
<td>25,094</td>
<td>25.4</td>
<td>10.1%</td>
</tr>
<tr>
<td>56-65</td>
<td>29,469</td>
<td>29.8</td>
<td>0.0%</td>
</tr>
<tr>
<td>66-75</td>
<td>14,762</td>
<td>14.9</td>
<td>0.0%</td>
</tr>
<tr>
<td>76+</td>
<td>1,516</td>
<td>1.5</td>
<td>0.0%</td>
</tr>
<tr>
<td>All</td>
<td>98,848</td>
<td>100.0</td>
<td>20.0%</td>
</tr>
</tbody>
</table>
Add longevity matching

- EPTS included without modification
INCREASE PRIORITY FOR SENSITIZED CANDIDATES

Proposed changes to allocation classifications
Median Time to Offer (Days)
Proposed Classifications: Very Highly Sensitized

- Candidates with CPRA >=98% face immense biological barriers
- Current policy only prioritizes sensitized candidates at the local level.
- Proposed policy would give following priority

<table>
<thead>
<tr>
<th>CPRA</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td>National</td>
</tr>
<tr>
<td>99%</td>
<td>Regional</td>
</tr>
<tr>
<td>98%</td>
<td>Local</td>
</tr>
</tbody>
</table>

- To participate in Regional/National sharing, review & approval of unacceptable antigens will be required.
<table>
<thead>
<tr>
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<th>Sequence C</th>
<th>Sequence D</th>
</tr>
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<td>KDPI&gt;85%</td>
</tr>
<tr>
<td>Highly Sensitized</td>
<td>Highly Sensitized</td>
<td>Highly Sensitized</td>
<td>Highly Sensitized</td>
</tr>
<tr>
<td>0-ABDRmm (top 20% EPTS)</td>
<td>0-ABDRmm</td>
<td>0-ABDRmm</td>
<td>0-ABDRmm</td>
</tr>
<tr>
<td>Prior living donor</td>
<td>Prior living donor</td>
<td>Prior living donor</td>
<td>Prior living donor</td>
</tr>
<tr>
<td>Local pediatrics</td>
<td>Local pediatrics</td>
<td>Local pediatrics</td>
<td>Local pediatrics</td>
</tr>
<tr>
<td>Local top 20% EPTS</td>
<td>Local adults</td>
<td>Regional pediatrics</td>
<td>National pediatrics</td>
</tr>
<tr>
<td>0-ABDRmm (all)</td>
<td>National pediatrics</td>
<td>Regional adults</td>
<td>National adults</td>
</tr>
<tr>
<td>Local (all)</td>
<td>National (all)</td>
<td>Regional (top 20%)</td>
<td>National (all)</td>
</tr>
<tr>
<td>Regional pediatrics</td>
<td>Regional pediatrics</td>
<td>Regional adults</td>
<td>Regional (all)</td>
</tr>
<tr>
<td>Regional (top 20%)</td>
<td>Regional adults</td>
<td>National pediatrics</td>
<td>National (all)</td>
</tr>
<tr>
<td>National pediatrics</td>
<td>National adults</td>
<td>National pediatrics</td>
<td>National (all)</td>
</tr>
<tr>
<td>National (top 20%)</td>
<td>National adults</td>
<td>National pediatrics</td>
<td>National (all)</td>
</tr>
<tr>
<td>National (all)</td>
<td>National adults</td>
<td>National pediatrics</td>
<td>National (all)</td>
</tr>
</tbody>
</table>

New categories for highly sensitized candidates
KPSAM results by CPRA

<table>
<thead>
<tr>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
</tr>
<tr>
<td>1-9</td>
</tr>
<tr>
<td>10-19</td>
</tr>
<tr>
<td>20-29</td>
</tr>
<tr>
<td>30-39</td>
</tr>
<tr>
<td>40-49</td>
</tr>
<tr>
<td>50-59</td>
</tr>
<tr>
<td>60-69</td>
</tr>
<tr>
<td>70-74</td>
</tr>
<tr>
<td>75-79</td>
</tr>
<tr>
<td>80-84</td>
</tr>
<tr>
<td>85-89</td>
</tr>
<tr>
<td>90-94</td>
</tr>
<tr>
<td>95</td>
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<td>96</td>
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<td>97</td>
</tr>
<tr>
<td>98</td>
</tr>
<tr>
<td>99</td>
</tr>
<tr>
<td>100</td>
</tr>
</tbody>
</table>

- **Waitlist**
- **2010**
- **N1**
- **N4**

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OPTN
KPSAM results by CPRA (95-100%)
KPSAM results by 0-ABDR mismatch

![Bar chart showing KPSAM results by 0-ABDR mismatch. The chart compares different percentages of mismatches across different years and categories.](chart.png)
Increase priority for sensitized candidates

- Concern that highly sensitized candidates will “draw” regional/national offers (Regions 1, 8)
- Recommendations for additional steps to reduce unexpected positive crossmatches (Regions 2, 4)
- Request for additional priority for 0-ABDR mismatches within highly sensitized categories (Histo Committee)
Positive Crossmatch Rate by CPRA

• In 2010, the rate of offer refusal due to + crossmatch...
  o Increased as CPRA increased
  o Was much higher for local offers (1.5%) than non-local offers (0.2%).

• Local +XM refusals generally occur before final acceptance and organ shipment.

• Non-local +XM refusals are often after final acceptance and shipping.
  ➢ Risk of discard, increased CIT, redirection
POSITIVE CROSSMATCH REFUSALS BY CPRA (NON-LOCAL OFFERS)

<table>
<thead>
<tr>
<th>CPRA</th>
<th>0</th>
<th>1-69</th>
<th>70-94</th>
<th>95</th>
<th>96</th>
<th>97</th>
<th>98</th>
<th>99</th>
<th>100</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>+XM refusals</td>
<td>331</td>
<td>124</td>
<td>116</td>
<td>4</td>
<td>9</td>
<td>8</td>
<td>13</td>
<td>15</td>
<td>10</td>
<td>629</td>
</tr>
<tr>
<td>Offers</td>
<td>332,058</td>
<td>69,515</td>
<td>9,814</td>
<td>317</td>
<td>371</td>
<td>325</td>
<td>384</td>
<td>314</td>
<td>196</td>
<td>412,279</td>
</tr>
<tr>
<td>Rate</td>
<td>0.1%</td>
<td>0.2%</td>
<td>1.2%</td>
<td>1.3%</td>
<td>2.4%</td>
<td>2.5%</td>
<td>3.4%</td>
<td>4.8%</td>
<td>5.1%</td>
<td>0.2%</td>
</tr>
</tbody>
</table>

The +XM refusal rate increased as CPRA increased.
Attempted Kidney Placements for CPRA 98+ Patients in 2010

- 38/894 (4%) of non-local offers were refused due to “positive crossmatch.”

- A total of 35 non-local kidneys were accepted but not transplanted into the accepting patient (discarded, or tx in other patient).

- 130 were transplanted with non-local kidneys.
Increase priority for sensitized candidates

- Under new system, CPRA 98+ patients will receive more offers.

- Actions to reduce unexpected positive crossmatches:
  - Required sign-off on unacceptable antigens by physician/surgeon and HLA laboratory director
  - CPRA sliding scale
  - Voluntary reporting of DQA/DPB

- Committee will monitor rates of placement failures due to +XM for highly sensitized candidates.
Increase priority for sensitized candidates

- Highly sensitized categories stratified to prioritize 0-ABDR mismatches ahead of non 0-ABDR mismatches
Proposed changes to point system

USE A SLIDING SCALE FOR CPRA
Proposed Point Change: Sensitization

- Current policy awards 4 points for CPRA \(\geq 80\%\)

- Diminished access for moderately sensitized patients not accounted for in current system

- A sliding scale based on candidate CPRA score would recognize access issues from CPRA of 20\%
Proposed Point Change: Sensitization

- Current policy: 4 points for CPRA >= 80%. No points for moderately sensitized candidates.
- Proposed policy: sliding scale starting at CPRA >= 20%

Current policy: 4 points for CPRA >= 80%. No points for moderately sensitized candidates.

Proposed policy: sliding scale starting at CPRA >= 20%

Current CPRA Sliding Scale (Allocation Points) (CPRA < 98%)

- CPRA=98, 99, 100 receive 24.4, 50.09, and 202.10 points, respectively.

Proposed CPRA Sliding Scale (Allocation Points) (CPRA < 98%)

- Points range from 0 to 20 at CPRA values from 0 to 100.
Offers per Patient-Year

- **Offer rate**
- **Offer rate (excluding 0-MM's)**

CPRA

2010

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**Offers per Patient-Year (CPRA >=95%)**

- **Offer rate**
- **Offer rate (excluding 0-MM's)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Offer Rate</th>
<th>Offer Rate (excluding 0-MM's)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>1.60</td>
<td>1.48</td>
</tr>
<tr>
<td></td>
<td>1.43</td>
<td>1.33</td>
</tr>
<tr>
<td></td>
<td>1.02</td>
<td>0.92</td>
</tr>
<tr>
<td></td>
<td>0.73</td>
<td>0.63</td>
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<tr>
<td></td>
<td>0.36</td>
<td>0.27</td>
</tr>
<tr>
<td></td>
<td>0.05</td>
<td>0.09</td>
</tr>
</tbody>
</table>

**OPTN**

**UNOS**

United Network for Organ Sharing
Overview of Feedback

- Very positive, no opposition to sliding scale
- Included as proposed
INCLUDE PRE-REGISTRATION DIALYSIS TIME
Point Changes: **Waiting Time**

- Current policy begins waiting time points for adults at registration with:
  - GFR≤20 ml/min
  - Already on dialysis

- Proposed policy would also award waiting time points for dialysis time prior to registration
  - Applies to both pediatric and adult candidates
  - Better recognizes time spent with ESRD as the basis for priority

- Pre-emptive listing would still be advantageous for 0-ABDR mismatch offers
Overview of Feedback

- Strongly supported by Minority Affairs Committee

- Opposition to including pre-registration dialysis time \((n=8)\), (Regions 4, 11)

- Recommendation to cap pre-registration time (Operations Committee member)

- Recommendation to allow for backdating of GFR\(<20\text{ml/min}\) (Region 9)

- Concern that including pre-registration time would provide disincentive for early referral
Distribution of Pre-Registration Dialysis Years by Region
Adult Kidney Additions, 1/1/07-12/31/12 (N=138,133)

Rectangular boxes represent the 25th and 75th percentiles; horizontal lines inside the boxes represent the median values; vertical lines represent the 5th and 95th percentiles.
Distribution of Pre-Registration Dialysis Years by Ethnicity
Adult Kidney Additions, 1/1/07-12/31/12 (N=138,132)

Rectangular boxes represent the 25th and 75th percentiles; horizontal lines inside the boxes represent the median values; vertical lines represent the 5th and 95th percentiles.
Cumulative Distribution of Pre-Registration Dialysis Years by Ethnicity
for Adult Kidney Additions with Pre-Registration Dialysis, 1/1/07-12/31/12

- White (N=53,838)
- Black (N=46,790)
- Hispanic (N=26,077)
- Asian (N=8,666)
- Other (N=2,761)
Findings

- Capping/eliminating pre-registration dialysis time disproportionately harms minority candidates
- Allocation system must be based on objective medical criteria
- No reliable source documentation/criteria for GFR backdating
- OPTN study of registrations under Dialysis Waiting Time study inconclusive
Include pre-registration dialysis time

• No changes made
INCORPORATE A_2/A_2B
Candidates with blood type B who meet defined clinical criteria will be eligible to accept kidneys from donors with blood type A₂ or A₂B

- Reported anti-A titer values required on regular schedule

- No titer values of greater than or equal to 1:8 allowed for candidate participation
KPSAM Results by blood type

![Bar chart showing KPSAM results by blood type.]

- **A**: Orange (Waitlist), Black (2010), Red (N1), Blue (N4)
- **AB**: Orange (Waitlist), Black (2010), Red (N1), Blue (N4)
- **B**: Orange (Waitlist), Black (2010), Red (N1), Blue (N4)
- **O**: Orange (Waitlist), Black (2010), Red (N1), Blue (N4)

OPTN
KPSAM results by ethnicity

- African-American
- Hispanic
- Caucasian
- Other/Unknown

- Waitlist
- 2010
- N1
- N4
Overview of Feedback

- Recommendation to extend priority to O candidates (Region 4)
- Recommendation to drop titer requirements
Discussion

- Purpose of component is to expand access for minority candidates (primarily blood type B)
- B candidates more likely to have low anti-A titers than O candidates
- Multiple methods exist for assessing titers
- Precedent exists for allowing transplant programs to set thresholds and use medical judgment (e.g., unacceptable antigens)
Modifications made

- Titer thresholds removed
- Transplant programs must establish written policies and recertify candidate eligibility every 90 days (+/- 20 days)
BASE PEDIATRIC ALLOCATION ON KDPI INSTEAD OF DONOR AGE
Current policy prioritizes donors younger than 35 to candidates listed prior to 18th birthday

Proposed policy would
- Prioritize donors with KDPI scores <35%
- Eliminate pediatric categories for non 0-ABDR KPDI >85%

Provides comparable level of access while streamlining allocation system
<table>
<thead>
<tr>
<th>Sequence A</th>
<th>Sequence B</th>
<th>Sequence C</th>
<th>Sequence D</th>
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<tbody>
<tr>
<td>KDPI &lt;=20%</td>
<td>KDPI &gt;20% but &lt;35%</td>
<td>KDPI &gt;=35% but &lt;=85%</td>
<td>KDPI&gt;85%</td>
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<tr>
<td>Highly Sensitized 0-ABDRmm (top 20% EPTS)</td>
<td>Highly Sensitized 0-ABDRmm Prior living donor Local pediatrics</td>
<td>Highly Sensitized 0-ABDRmm Prior living organ donor Local Regional Regional pediatrics Regional adults National pediatrics National adults</td>
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<td>Prior living donor Local pediatrics</td>
<td>Local adults Regional pediatrics Regional adults National pediatrics National adults</td>
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<td>Local top 20% EPTS 0-ABDRmm (all) Local (all) Regional pediatrics Regional (top 20%) Regional (all) National pediatrics National (top 20%) National (all)</td>
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</table>

**Continued priority pediatric candidates (now based on KDPI)**
KPSAM results by candidate age

- <18
- 18-34
- 35-49
- 50-64
- 65+

Percentages for Waitlist, 2010, N1, and N4 categories.
Modifications to Pediatric Priority

- Pediatric Committee recommended also including priority for highly sensitized 0-ABDR pediatric candidates for KDPI > 85%

- Above recommendation incorporated into proposal
ELIMINATE KIDNEY PAYBACKS
Current payback policy was evaluated and found to be
- Administratively challenging
- Unfair in that it affected all candidates in an OPO even if only one center was responsible for accruing debt
- Ineffective in improving outcomes of recipients

Kidney paybacks would no longer be permitted.

All payback credits and debts would be eliminated upon the implementation of the revised kidney allocation system.
Comments received

- Eliminating payback system removes disincentive for accepting kidney and transplanting into backup candidate (Regions 1, 8)

- Eliminating payback system disproportionately harms small programs
Deliberation

- Committee considered:
  
  • Applying paybacks in certain circumstances
  
  • Developing a mechanism (other than paybacks) for addressing kidneys shipped but not transplanted into the intended recipient
  
  • Retaining the existing payback system
Final Recommendation

- Eliminate the payback system as initially proposed
ALLOCATE HIGH KDPI KIDNEYS TO COMBINED LOCAL/REGIONAL
KDPI >85% kidneys would be allocated to a combined local and regional list

Would promote broader sharing of kidneys at higher risk of discard

DSAs with longer waiting times are more likely to utilize these kidneys than DSAs with shorter waiting times