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Message from the Founder & CEO

The NKR is on track to facilitate 20% of all living donor kidney transplants in the United States this year. The majority of NKR-facilitated transplants are traditional paired exchange transplants, but a growing number of remote direct donation transplants and microsite direct donation transplants are fueling our growth.

Over the past year, microsite living donor transplants have more than doubled, resulting in 144 microsite-facilitated transplants. This growth was driven by a 48% increase in the number of active microsites. Also driving growth is the increasing microsite success rate, which has doubled to 14% in the past year, primarily driven by our professional patient-coaching staff.

The Kidney for Life program continues to grow, with 19 transplant centers now participating. The second quarter of 2022 saw a 73% increase in the number of patients who received a low eplet mismatch transplant through the KFL program.

The NKR is on track to refer over 2,100 highly qualified donor candidates to member centers this year. This is a 36% increase over last year. Donations from NKR referrals are expected to be approximately 150 this year, a 50% increase over last year.

Sincerely,

Garet Hil
Founder & CEO
National Kidney Registry
Living Kidney Donor
NKR Facilitated Transplant Growth

*NKR facilitated transplants (TXPs) include voucher, paired, remote directs, KFL remote directs, microsite internal direct, and waitlist patient transplants.

**https://optn.transplant.hrsa.gov/data/ U.S. Living Donor (LD) Transplants Performed: 1/1/2008 - 5/31/2022, Based on OPTN data as of 7/7/2022; NKR Database accessed 7/7/2022
Top Centers
NKR Facilitated Transplants 7/1/2021 – 6/30/2022

UCSF UMinn MayoMN Georgetown WakeForest MayoAZ Penn Hartford UCLA Madison

54 54 49 45 41 40 39 35 33 30

NKR facilitated transplants (TX Ps) include voucher, paired, remote directs, KFL remote directs, Microsite transplants, and WLP transplants.
Death Censored Graft Failure Comparisons

Provided courtesy of NYU Grossman School of Medicine, Department of Surgery *Not including waitlist patients; Kaplan-Meier GS Rates for Transplants Performed: 02/2008-12/2021 with follow-up through 3/31/2022

https://www.srtr.org/ SRTR data as of June 2022

1 Year

- NKR KPD (NKR) (n=3479)
- Non-NKR KPD (KPD) (n = 6525)
- US Living Donor (LD) (n=75728)
- US Unrelated Living Donor (ULD) (n=37659)

1.4% NKR
1.4% KPD
1.5% LD
1.5% ULD

13% Lower*

3 Year

- NKR KPD (NKR) (n=3479)
- Non-NKR KPD (KPD) (n = 6525)
- US Living Donor (LD) (n=75728)
- US Unrelated Living Donor (ULD) (n=37659)

3.2% NKR
4.0% KPD
3.7% LD
3.7% ULD

14% Lower*

5 Year

- NKR KPD (NKR) (n=3479)
- Non-NKR KPD (KPD) (n = 6525)
- US Living Donor (LD) (n=75728)
- US Unrelated Living Donor (ULD) (n=37659)

6.0% NKR
7.2% KPD
6.6% LD
6.7% ULD

9% Lower*
Living Donors Supported and Protected

As of 7/20/2022
To learn more about the Donor Shield protections click here.

As of 7/20/2022
To learn more about the Donor Shield protections click here.
Microsite Growth

As of 7/8/2022
To learn more about the microsite program click here

Active Custom Sites
Active Starter Sites
Microsite Transplants

As of 7/8/2022
To learn more about the microsite program click here
Active microsites as of 8/3/2022
Total deceased donor waitlist as of 2021
As of 7/6/2022
To learn more about the microsite program click here
As of 7/6/2022
To learn more about the microsite program click here

Microsite Patient Referrals

![Chart showing patient referrals for 2020, 2021, and 2022.](chart)

- **2020**: 1,402
- **2021**: 1,603
- **2022 Annualized**: 1,971

As of 7/6/2022
To learn more about the microsite program [click here](#)
As of 7/7/2022
To see the latest microsite participating centers click here.
Kidney for Life Low Eplet Mismatch Transplants
Compatible and Incompatible Pairs

To learn more about the Kidney for Life program click here.
Kidney for Life Low Eplet Mismatch Transplants
Compatible and Incompatible Pairs 7/1/2021 – 6/30/2022

To learn more about the Kidney for Life program click here.
### Kidney for Life Low Eplet Mismatch Transplants

**Compatible Pairs 7/1/2021 - 6/30/2022**

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Transplants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interimn</td>
<td>17</td>
</tr>
<tr>
<td>UMinn</td>
<td>14</td>
</tr>
<tr>
<td>NYU</td>
<td>8</td>
</tr>
<tr>
<td>Georgetown</td>
<td>7</td>
</tr>
<tr>
<td>MayoMN</td>
<td>5</td>
</tr>
<tr>
<td>Madison</td>
<td>4</td>
</tr>
<tr>
<td>Penn</td>
<td>3</td>
</tr>
<tr>
<td>Brigham</td>
<td>1</td>
</tr>
<tr>
<td>Emory</td>
<td>1</td>
</tr>
<tr>
<td>Hartford</td>
<td>1</td>
</tr>
<tr>
<td>Lahey</td>
<td>1</td>
</tr>
<tr>
<td>MayoFl</td>
<td>1</td>
</tr>
<tr>
<td>Piedmont</td>
<td>1</td>
</tr>
</tbody>
</table>

**Eplet Mismatch**

- **KFL Direct - Low**
- **KFL Direct - Zero**
- **KPD - Low**
- **KPD - Zero**


To learn more about the Kidney for Life program [click here](#).
Kidney for Life Simulated Wait Times to Transplant
Probability Patients Encounter a Low Eplet Mismatch Donor

As of 7/13/2022
*Calculated using NKR calculated eplet mismatch information from 472 patients and 2,026 NKR donors.
Kidney for Life Actual Wait Times to Transplant Compatible Pairs Who Received a Low Eplet Mismatch Transplant (n=63)

As of 8/1/2022
Excludes patients with a cPRA > 90.00%
To learn more about the Kidney for Life program click here.
To learn more about the Kidney for Life program click here.
As of 7/7/2022
To see the latest Kidney for Life participating centers click here.
As of 7/6/2022
To learn more about DASH, the Donor Automated Screening and History system click here.
Good Samaritan Donor Candidate Registrations
Across All DASH Intake Platforms

As of 7/6/2022
To learn more about DASH, the Donor Automated Screening and History system click here.
NKR Qualified Donor Referrals
Referred to NKR Member Centers

As of 7/6/2022
Includes donor registrants from all NKR websites.
Donations Resulting from NKR Donor Referrals

As of 7/6/2022
Includes donor registrants from all NKR websites.
To avoid lag-effect, the chart counts donation date which does not reflect the date the donor registered.

Donation Confirmation Source
- Donor
- Donor Shield
- Microsite
- Follow-Up System
- NKR Swap
- Center Reported

Annualized
Center Conversion Rates on NKR Donor Candidate Referrals
NKR Donor Candidates Referred vs Donations

As of 7/15/2022

Formula: Donations / Avg. (Year + Prior Year Referrals)

<table>
<thead>
<tr>
<th>Year</th>
<th>Conversion Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>5.0%</td>
</tr>
<tr>
<td>2019</td>
<td>13.1%</td>
</tr>
<tr>
<td>2020</td>
<td>9.3%</td>
</tr>
<tr>
<td>2021</td>
<td>8.4%</td>
</tr>
<tr>
<td>2022</td>
<td>8.5%</td>
</tr>
</tbody>
</table>
Donor Connect Registration to Donation Rate
7/1/2021 – 6/30/2022

<table>
<thead>
<tr>
<th></th>
<th>Without Mentor</th>
<th>With Mentor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Donations</td>
<td>32</td>
<td>32</td>
</tr>
<tr>
<td>Registrations</td>
<td>6,678</td>
<td>3,961</td>
</tr>
</tbody>
</table>

As of 7/6/2022
Includes donor registrants from all NKR websites.
## Remote Donations by Donor Type

<table>
<thead>
<tr>
<th>Donor Type</th>
<th>Q1-20</th>
<th>Q2-20</th>
<th>Q3-20</th>
<th>Q4-20</th>
<th>Q1-21</th>
<th>Q2-21</th>
<th>Q3-21</th>
<th>Q4-21</th>
<th>Q1-22</th>
<th>Q2-22</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swap Saver</td>
<td>9</td>
<td>11</td>
<td>11</td>
<td>15</td>
<td>19</td>
<td>26</td>
<td>18</td>
<td>28</td>
<td>35</td>
<td>29</td>
</tr>
<tr>
<td>Direct</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paired</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard Voucher</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Donor Type Details:**
- **Swap Saver**
- **Direct**
- **Paired**
- **Standard Voucher**
NKR Facilitated Kidney Donations by Donor Type

As of 7/20/2022

Donor Type
- Microsite Internal Direct
- Remote Direct
- Paired
- Standard Voucher
- Family Voucher
- Non-Directed Donor

Donations

<table>
<thead>
<tr>
<th>Year</th>
<th>Microsite Internal Direct</th>
<th>Remote Direct</th>
<th>Paired</th>
<th>Standard Voucher</th>
<th>Family Voucher</th>
<th>Non-Directed Donor</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>310</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>360</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>399</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2017</td>
<td>462</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>621</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td>775</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td>715</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2021</td>
<td>1,051</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2022</td>
<td>1,121</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Includes remote direct and KFL remote directs donations.
** Includes swap saver and real time swap failure donors.

As of 7/20/2022
Transition to Family Voucher Donation

As of 7/6/2022
Uncoupling Trend
Transition from Paired to Standard Voucher Donation

As of 7/6/2022
Pool Composition by cPRA
Unmatched Paired and Voucher Patients

As of 7/6/2022

<table>
<thead>
<tr>
<th>cPRA</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td>26%</td>
</tr>
<tr>
<td>96% - 99%</td>
<td>19%</td>
</tr>
<tr>
<td>81% - 95%</td>
<td>13%</td>
</tr>
<tr>
<td>51% - 80%</td>
<td>10%</td>
</tr>
<tr>
<td>1% - 50%</td>
<td>9%</td>
</tr>
<tr>
<td>0%</td>
<td>22%</td>
</tr>
</tbody>
</table>

As of 7/6/2022 13:36:41
New Exportable Patients

As of 7/6/2022

Paired
Standard Voucher

2012: 443
2013: 463
2014: 508
2015: 548
2016: 571
2017: 522
2018: 622
2019: 679
2020: 624
2021: 839
2022: 826

Annualized

As of 7/6/2022
Wait Time Distribution
From Exportability to Transplant

As of 7/7/2022
Excludes all non-KPD and waitlist patient transplants.
Median Wait Time to Transplant

As of 7/6/2022
Excludes all non-KPD and waitlist patient transplants.
Median Wait Time by Blood Type
From Exportability to Transplant

As of 7/6/2022
Excludes all non-KPD and waitlist patient transplants.
Patients Waiting More Than 1 Year Due to High cPRA

### Paired Patients

<table>
<thead>
<tr>
<th>#</th>
<th>Patient ID</th>
<th>Patient ABO</th>
<th>cPRA</th>
<th>Months Wait</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5501</td>
<td>B</td>
<td>100.00</td>
<td>79</td>
</tr>
<tr>
<td>2</td>
<td>5607</td>
<td>O</td>
<td>100.00</td>
<td>50</td>
</tr>
<tr>
<td>3</td>
<td>9640</td>
<td>O</td>
<td>100.00</td>
<td>42</td>
</tr>
<tr>
<td>4</td>
<td>9374</td>
<td>B</td>
<td>100.00</td>
<td>37</td>
</tr>
<tr>
<td>5</td>
<td>10986</td>
<td>O</td>
<td>100.00</td>
<td>33</td>
</tr>
<tr>
<td>6</td>
<td>10311</td>
<td>O</td>
<td>100.00</td>
<td>33</td>
</tr>
<tr>
<td>7</td>
<td>11785</td>
<td>A</td>
<td>100.00</td>
<td>22</td>
</tr>
<tr>
<td>8</td>
<td>12565</td>
<td>O</td>
<td>100.00</td>
<td>20</td>
</tr>
<tr>
<td>9</td>
<td>12495</td>
<td>B</td>
<td>100.00</td>
<td>20</td>
</tr>
<tr>
<td>10</td>
<td>9245</td>
<td>O</td>
<td>100.00</td>
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<tr>
<td>11</td>
<td>12531</td>
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<td>12</td>
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<td>15</td>
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<td>16</td>
<td>6459</td>
<td>O</td>
<td>99.97</td>
<td>63</td>
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<tr>
<td>17</td>
<td>12411</td>
<td>A</td>
<td>99.97</td>
<td>21</td>
</tr>
<tr>
<td>18</td>
<td>11903</td>
<td>O</td>
<td>99.95</td>
<td>21</td>
</tr>
<tr>
<td>19</td>
<td>12794</td>
<td>O</td>
<td>99.81</td>
<td>15</td>
</tr>
</tbody>
</table>

### Voucher Patients

<table>
<thead>
<tr>
<th>#</th>
<th>Patient ID</th>
<th>Patient ABO</th>
<th>cPRA</th>
<th>Months Wait</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3281</td>
<td>AB</td>
<td>100.00</td>
<td>92</td>
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<tr>
<td>2</td>
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<td>O</td>
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<td>3</td>
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<td>4</td>
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<td>5</td>
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<tr>
<td>6</td>
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<td>7</td>
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<tr>
<td>8</td>
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<td>9</td>
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<tr>
<td>10</td>
<td>12432</td>
<td>O</td>
<td>99.97</td>
<td>19</td>
</tr>
<tr>
<td>11</td>
<td>10982</td>
<td>B</td>
<td>99.89</td>
<td>30</td>
</tr>
</tbody>
</table>

As of 7/6/2022
Includes all patients exportable in the NKR pool with a cPRA > 99.00
As of 7/6/2022
Excludes all non-KPD and waitlist patient transplants.
Swap Failure Rates

As of 7/7/2022
System level formula: (1-(transplants / commenced XMs)) Center level formula: (swap failures / transplants)
Swaps Saved by Swap Saver Voucher Donors

As of 7/6/2022

Swap Saver Donations

<table>
<thead>
<tr>
<th>Year</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>7</td>
<td>12</td>
<td>28</td>
<td>26</td>
<td>37</td>
<td>37</td>
</tr>
</tbody>
</table>

Annualized as of 7/6/2022
Resources

- kidneyregistry.org
- donor-shield.org
- kidneytransplantcenters.org
- donorcarenet.org
- kidneyforlife.org
- findakidney.org
- livingdonorgames.org