Demystifying the OPTN Kidney Paired Donation Pilot Program

Navigating the Logistics of KPD

July 25, 2012
2:00 pm – 3:30 PM ET

Ruthanne L Hanto RN, MPH
Roxanne Taylor RN, MSN, CPTC, CCTC
Janet Hiller RN, MSN, CCTC
Polling Question 1
Has your center signed an agreement to participate in the OPTN KPDPP?

- Yes
- No
Polling Question 2
Has your center entered at least 1 pair or non-directed donor into the OPTN program?

- Yes
- No
Polling Question 3
Has your center been offered at least one match through the OPTN KPDPP?

- Yes
- No
Objectives

- Define common terms associated with the OPTN KPDPP
- Enter pairs and check donor and candidate eligibility in UNet\textsuperscript{SM}
- Describe the process of accepting a KPD match offer
- Describe the KPD process from final acceptance of a match offer to donation and transplantation
- Report data on cold ischemia time (CIT) and immediate graft function in UNet\textsuperscript{SM}
KPD Match Run
Exchanges

Two-Way Exchange

Donor A    Candidate A
          Donor B    Candidate B
          Donor C    Candidate C

Three-Way Exchange

Donor A    Candidate A
          Donor B    Candidate B
          Donor C    Candidate C

Closed Chain

Non-Directed Donor
Waiting List Candidate

Open Chain

Non-Directed Donor

Pair
Match
Exchange
2 & 3-Way Exchanges

--- Two-Way Exchange ---
- Donor A
- Candidate A
- Donor B
- Candidate B

--- Three-Way Exchange ---
- Donor A
- Candidate A
- Donor B
- Candidate B
- Donor C
- Candidate C

Pair
Match
Exchange
Donor Chains

Closed Chain

Non-Directed Donor

Donor A

Candidate A

Donor B

Candidate B

Waiting List Candidate

Open Chain

Non-Directed Donor

Donor A

Candidate A

Donor B

Candidate B

Donor C

“Bridge Donor”

Candidate C

OPTN
Polling Question 4
A Match is defined as

a. A set of matches that form either a chain, a two-way exchange, or three-way exchange
b. A donor and his matched candidate
c. A donor and his paired candidate
d. A procedure used to generate a set of exchanges
Recap

Donor and paired candidate = Pair

Donor and matched candidate = Match

A Set of Matches = Exchange
Starting the Process: Step 1

- Transplant centers enter pairs and non-directed donors in UNet\textsuperscript{SM}
Welcome to the Secure Enterprise®️, your secure gateway to the UNet®️ system and other UNOS-developed transplant applications. The Secure Enterprise®️ improves system security and provides a flexible way to access applications and tools.

**SYSTEM NOTICES**

- **6/12/2012**: 53206S Temporary Interruption of UNet®️ Services
- **6/11/2012**: 52579T TIED®️ Training for Transplant Centers REMINDER
- **6/8/2012**: 53206S Temporary Interruption of UNet Services
- **6/6/2012**: 46981S Implementation of Change to TIED®️ - Deceased Donor Registration Form
- **6/5/2012**: 51766V Implementation of Changes to the Business Rules in TIEDI - Transplant Candidate Registration and Transplant Recipient Registration
- **6/5/2012**: 52158S Implementation of Changes to DonorNet®️ Fields: Urinalysis Color and I.V. Fluids

**CRITICAL DATA**

You do not have critical expected data.

**REPORTS**

**EMMES DATA DOWNLOAD**

**DATA REPORTS**

- National DSA Dashboard
ABO Pending Candidates

To verify the ABO, click the candidate's KPD ID below. The ABO must be verified by a second user before the candidate can be eligible for KPD match runs.

No candidates with pending ABO verification found.

ABO Pending Donors

To verify the ABO, click the donor's KPD ID below. The ABO must be verified by a second user before the donor can be eligible for KPD match runs.
Add a KPD Candidate

INSTITUTION

Home transplant center:  
Requested by:  

SSN:  
Date of birth:  
Waitlist ID:  

The screenshot below shows the location of the candidate’s Waitlist ID on the candidate record in the Waitlist system.
ABO Pending Candidates

To verify the ABO, click the candidate's KPD ID below. The ABO must be verified by a second user before the candidate can be eligible for KPD match runs.

No candidates with pending ABO verification found.

ABO Pending Donors

To verify the ABO, click the donor's KPD ID below. The ABO must be verified by a second user before the donor can be eligible for KPD match runs.
<table>
<thead>
<tr>
<th>Donor KPD eligibility status:</th>
<th>Ineligible</th>
</tr>
</thead>
<tbody>
<tr>
<td>KPD donor ID:</td>
<td>600408</td>
</tr>
<tr>
<td>KPD donor ID:</td>
<td>600408</td>
</tr>
<tr>
<td>KPD candidate ID:</td>
<td>123456</td>
</tr>
<tr>
<td>Candidate name</td>
<td>Test</td>
</tr>
</tbody>
</table>

**INSTITUTION**
- Home transplant center: 
- Requested by: 

**KPD DONOR CHOICES**
- Donor willing to travel? (X)
- If Yes, to which center(s) is the donor willing to travel?

**Questions**
- Is the donor willing to have his or her kidney shipped? (X)
- This donor can ONLY donate his or her following kidney: (X)
- Pair and center willing to participate in a 3-way match? (X)
- Pair and center willing to participate in a chain foot as a bridge?
Donor ineligible reasons for:

1. Donor Serologies: A response of "Positive" or "Negative" to "EBV (VCA) (IgG)" has not been entered for this donor. This is required for match eligibility.
### KPD Search

**INSTITUTION**

Select home transplant center: **STUA – State Transplant University**

I want to find:  
- ☑ a KPD candidate  
- ☑ a KPD donor

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Candidate name:</td>
<td>Last name</td>
</tr>
<tr>
<td></td>
<td>First name</td>
</tr>
<tr>
<td>Candidate SSN:</td>
<td></td>
</tr>
<tr>
<td>KPD candidate ID:</td>
<td></td>
</tr>
<tr>
<td>KPD pair ID:</td>
<td></td>
</tr>
<tr>
<td>Waitlist ID:</td>
<td></td>
</tr>
<tr>
<td>Center’s patient ID:</td>
<td></td>
</tr>
<tr>
<td>Add date:</td>
<td>Start date</td>
</tr>
<tr>
<td></td>
<td>End date</td>
</tr>
<tr>
<td>Candidate ABO:</td>
<td></td>
</tr>
<tr>
<td>Candidate status:</td>
<td>Active</td>
</tr>
<tr>
<td></td>
<td>Inactive</td>
</tr>
<tr>
<td></td>
<td>Removed</td>
</tr>
<tr>
<td>Candidate KPD eligibility status:</td>
<td>Eligible</td>
</tr>
<tr>
<td></td>
<td>Ineligible</td>
</tr>
</tbody>
</table>

**ABO Pending Candidates**

To verify the ABO, click the candidate's KPD ID below. The ABO must be verified by a second user before the candidate can be eligible for KPD match runs.
Polling Question 5
A donor or candidate can be both active and ineligible.

- True
- False
Starting the Process: Step 2

- UNOS staff initiates a Match Run
- Match Offers are emailed to centers
- Exchange Reports
- Matched Donor Report
Starting the Process: Step 2

Roxanne Taylor, RN, MSN
Living Donation Coordinator
Maine Transplant Program

July 25, 2012
KPD Pilot Program

- Transplant center enters recipient/donor pair or non-directed donor into UNet℠ KPD
- OPTN KPD match run occurs
Starting the Process: Steps 2 & 3

- Receive UNOS match offer via e-mail
  - Offer includes all matched pairs and centers, matched donor report and coordinator contact information
  - Offer goes to all team members previously identified
    - Coordinators, surgeons, nephrologists, HLA staff
    - Offer should be fully reviewed by all team members, especially HLA staff
- Respond to match offer within 24 – 48 hrs
- All centers receive e-mail with match results
### Exchange Report

**KPD Exchange Report for Exchange ID:**

**Match Run Date:** 09JUL12

**Note:** A missing candidate ID represents a candidate on the deceased donor waiting list.

**Exchange:** a set of matches that form either a chain, a two-way exchange, or three-way exchange.

- **Two-way exchange:** a set of matches that includes two donor-candidate pairs where each donor donates a kidney to the candidate in the other pair.
- **Three-way exchange:** a set of matches that includes three donor-candidate pairs where each donor donates a kidney to a candidate in one of the other pairs.

<table>
<thead>
<tr>
<th>Match ID</th>
<th>Candidate Home Center</th>
<th>Candidate ID</th>
<th>Donor Home Center</th>
<th>Donor ID</th>
<th>Donor Contact</th>
<th>Candidate Contact</th>
<th>Candidate Contact Info</th>
</tr>
</thead>
<tbody>
<tr>
<td>20294</td>
<td>ABCD-TX1</td>
<td>600503</td>
<td>ABCD-TX1</td>
<td>200450</td>
<td>KPD Contact(s) 1) Ms. Jane Doe, RN NOTE: Primary Contact</td>
<td>1) Email: <a href="mailto:Jane.Doe@stuhospitals.org">Jane.Doe@stuhospitals.org</a> Fax#: 610-456-7896 Office: # 610-123-4563</td>
<td>2) John Smith, RN Clinical Specialist NOTE: Primary Contact</td>
</tr>
<tr>
<td>20295</td>
<td>ABCD-TX1</td>
<td>600480</td>
<td>STUA-TX1</td>
<td>200268</td>
<td>KPD Contact(s) 1) Ms. Jane Doe, RN NOTE: Primary Contact</td>
<td>1) Email: <a href="mailto:Jane.Doe@stuhospitals.org">Jane.Doe@stuhospitals.org</a> Fax#: 610-456-7896 Office: # 610-123-4563</td>
<td>2) John Smith, RN Transplant Nurse Coordinator</td>
</tr>
<tr>
<td>20296</td>
<td>STUA-TX1</td>
<td>600123</td>
<td>STUA-TX1</td>
<td>200147</td>
<td>KPD Contact(s) 1) Ms. Jane Doe, RN NOTE: Primary Contact</td>
<td>1) Email: <a href="mailto:Jane.Doe@stuhospitals.org">Jane.Doe@stuhospitals.org</a> Fax#: 610-456-7896 Office: # 610-123-4563</td>
<td>2) John Smith, RN Transplant Nurse Coordinator</td>
</tr>
<tr>
<td>20297</td>
<td>STUA-TX1</td>
<td>600361</td>
<td>ABCD-TX1</td>
<td></td>
<td>KPD Contact(s) 1) Ms. Jane Doe, RN NOTE: Primary Contact</td>
<td>1) Email: <a href="mailto:Jane.Doe@stuhospitals.org">Jane.Doe@stuhospitals.org</a> Fax#: 610-456-7896 Office: # 610-123-4563</td>
<td>2) John Smith, RN Transplant Nurse Coordinator</td>
</tr>
</tbody>
</table>

### KPD Contact Information for Exchange ID: 243

- **KPD Contact(s)**: 1) Ms. Jane Doe, RN NOTE: Primary Contact
- **Candidate Contact(s)**: 1) Ms. Mary Smith, RN, BSN Transplant Coordinator

**KPD Contact Info**

- 1) Email: Jane.Doe@stuhospitals.org Fax#: 610-456-7896 Office: # 610-123-4563
- 2) Email: John.Smith@stuhospitals.org Fax#: 610-456-7896 Office: # 610-987-1234

**Candidate Contact Info**

- 1) Email: M.Smith@stuhospitals.org Fax#: 212-456-7896 Office: # 212-123-4563
### Matched Donor Report

**Candidate information**

**KPD Match Results Report: MATCHED DONOR Information for Exchange ID-Match ID = 24-3-20296 (Candidate Center STUA-TX1)**

**KPD Pilot Program Match Run Number: 24**

**Match Run Date: 09JUL12**

<table>
<thead>
<tr>
<th>MATCH INFO</th>
<th>CENTER and CANDIDATE to whom this donor matched</th>
<th>CONTACT INFO for MATCHED DONOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Match ID</td>
<td>KPD Candidate ID</td>
<td>Candidate’s Name</td>
</tr>
<tr>
<td>20296</td>
<td>chain</td>
<td>Candidate Center</td>
</tr>
</tbody>
</table>
|            | Identical      | STUA-TX          | 200147          | Candidate, Test | | 1) Jane Doe, Living Donor Coordinator | Email: Jane.Doe@stuhospitals.org  
|            |                |                  |                 |                | | | Office: # 610-123-4563 |
|            |                |                  |                 |                | | NOTE: | |
|            |                |                  |                 |                | | 2) John Smith, Nurse Manager | Email: John.Smith@stuhospitals.org  
|            |                |                  |                 |                | | | Fax#: 610-456-7896  
|            |                |                  |                 |                | | | Office#: 610-987-1234 |
### Matched Donor's Medical History

<table>
<thead>
<tr>
<th>Number of Arteries</th>
<th>Number of Veins</th>
<th>Ureter</th>
<th>Number of HTN Meds</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

### Matched Donor's Vital Signs

<table>
<thead>
<tr>
<th>Was 24-hour blood pressure monitor used?</th>
<th>Donor's Systolic BP (average of 24 hour period)</th>
<th>Donor's Diastolic BP (average of 24 hour period)</th>
<th>BP Date Start (start of 24 hour period)</th>
<th>Donor's Systolic BP 1</th>
<th>Donor's Diastolic BP 1</th>
<th>Donor's BP Date 1</th>
<th>Donor's Systolic BP 2</th>
<th>Donor's Diastolic BP 2</th>
<th>Donor's BP Date 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>129</td>
<td>89</td>
<td>08/10/2010</td>
<td>128</td>
<td>80</td>
<td>08/26/2010</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Matched Donor's Labs

<table>
<thead>
<tr>
<th>CrCl Date</th>
<th>CrCl (Absolute) (mL/min)</th>
<th>CrCl (Adjusted)</th>
<th>CrCl Method</th>
<th>HbA1c Date</th>
<th>HbA1c(%)</th>
<th>Urine Protein/Cr Ratio Date</th>
<th>Urine Protein/Cr Ratio</th>
<th>24 Hour Urine Protein Date</th>
<th>24 Hour Urine Protein(mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>04/10/2011</td>
<td>74.800</td>
<td>58.0329</td>
<td>24 hour measurement</td>
<td>08/04/2010</td>
<td>6.0</td>
<td>04/10/2011</td>
<td>01/01/1960</td>
<td>04/10/2011</td>
<td>65.0</td>
</tr>
</tbody>
</table>
KPD Process

- Center-specific policy/procedure/criteria should be set by each program
  - Acceptance policies are NOT determined by UNOS
  - Your policies should include:
    - Which team members receive the initial offer (HLA should definitely be on the list)
    - Donor kidney criteria, i.e., kidney function, age limits, hypertension, CIT, etc.
    - Donor travel requirements
    - Administrative requirements
    - Financial requirements of your program
Polling Question 6

Who should receive the initial match offer?

1. The transplant surgeon only
2. Transplant team members, including the HLA lab
3. Everyone on the transplant team except the HLA lab
4. The janitor
Starting the Process: Step 4

- If any center declines match offer match is terminated – maybe
- If all centers accept match offer the match moves forward
Assessing Potential Donors: Step 1

- Coordinators contact each other to move forward with the exchange
  - Matched donor information/medical chart forwarded to matched recipient center
  - Information to set up cross-matches exchanged
    - Demographic information on donors exchanged
    - Method of sending out kits determined by recipient center
  - Financial information exchanged
    - Verify recipient’s insurance information
Assessing Potential Donors: Step 1

- Preliminary cross-matches performed
  - Should be completed within two weeks from time of match offer
- Requests for more information/testing
Assessing Potential Donors: Step 2

- If cross-match is positive, match is terminated – maybe
- If cross-match is negative match moves ahead
Polling Question 7

What is the time frame in which a center should complete the preliminary cross-match?

1. Two days
2. One month
3. Two weeks
4. Any time is fine
Contact Information

Roxanne Taylor, RN, MSN
Maine Transplant Program
Maine Medical Center
19 West Street
Portland Maine 04102
Office: 207-662-7185
Fax: 207-662-7160
E-mail: taylorm@mmc.org
Arranging the Transplants
Steps 1 – 4

Janet Hiller, RN, MSN
Johns Hopkins Hospital
(jmhiller@jhmi.edu)
Components of Match Acceptance

- Crossmatches
  - Virtual
    - Preliminary based on historical HLA
  - Actual
    - CDC: complement-dependent cytotoxic
    - Flow cytometry
    - Luminex: solid phase assay, highly sensitive for detecting donor-specific antibody (DSA), esp. Class II

- Review of match by transplant team
Components of Match Acceptance

- Donor record review and additional requested diagnostics completed
- CTA / 3D CT scan reviewed by receiving donor surgeons.
  - Anatomy reviewed
  - Surgeons communicate as needed
- Discuss center-specific policies regarding meeting/correspondence between donors and recipients
  - CTA / 3D CT scan reviewed by receiving donor surgeons.
  - Anatomy reviewed
  - Surgeons communicate as needed
Polling Question 8

*Final match acceptance is confirmed once:*

a. The CDC crossmatch is done  
b. The CDC and flow crossmatch is done  
c. The donor records have been reviewed  
d. All crossmatches and donor records have been reviewed.
Identify components required when scheduling surgery date
Identify components required when scheduling surgery date

Check with donors about availability for surgery

a. Explain arrangement of exchange; chain, simultaneous, sequential, etc.

b. Explain possible obstacles to completion of exchange

1. Abnormal pre-op labs on donor or recipient
2. Recipient becomes ill prior to transplant
3. Donor or recipient decides not to participate
Identify components required when scheduling surgery date

Check surgeon availability

Check Operating room availability

Logistics Conference Call
1. Common availability among involved transplant centers
2. Final crossmatch needs
3. Flush solution desired
4. Pre-op NAT testing on donors
5. Living Donor Registration in UNet\textsuperscript{SM}
6. CMS Administrative requirements satisfied
Plan and Organize Kidney and/or Donor Transportation Utilizing Available Resources
Plan and Organize Kidney and/or Donor Transportation Utilizing Available Resources

1. Discuss donor or kidney travel with other centers
   a. Available resources when donor travels:
      Living Donor Assistance Fund
      Hospital Grants
      Hotel specials, Airline specials
   b. Available resources if kidney travels:
      UNOS logistics support
      Courier support
      OPO support

OPTN
<table>
<thead>
<tr>
<th>Potential issues preventing completion of exchange</th>
<th>Recommendation for back-up plans</th>
</tr>
</thead>
<tbody>
<tr>
<td>medical/surgical complications pre-op</td>
<td>postpone KPD</td>
</tr>
<tr>
<td>medical/surgical complications intra-op</td>
<td>have back –up recipient ready</td>
</tr>
<tr>
<td>other issues; eg. family, social</td>
<td>donor chart in box with kidney</td>
</tr>
<tr>
<td></td>
<td>postpone KPD</td>
</tr>
</tbody>
</table>
**Plan and Organize Kidney and /or Donor Transportation Utilizing Available Resources**

<table>
<thead>
<tr>
<th>Donor Related</th>
<th>Recommendation for back-up plans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential issues preventing completion of exchange</td>
<td></td>
</tr>
<tr>
<td>medical abnormalities pre-op</td>
<td>postpone KPD</td>
</tr>
<tr>
<td>complications intra-op</td>
<td>inform receiving center immediately</td>
</tr>
<tr>
<td>psychosocial issues; change of mind, employment, financial</td>
<td>postpone KPD</td>
</tr>
</tbody>
</table>
Plan and Organize Kidney and/or Donor Transportation Utilizing Available Resources

<table>
<thead>
<tr>
<th>Potential issues preventing completion of exchange</th>
<th>Recommendation for back-up plans</th>
</tr>
</thead>
<tbody>
<tr>
<td>weather</td>
<td>assess for date change</td>
</tr>
<tr>
<td>lost during transportation</td>
<td>importance of chain of custody</td>
</tr>
<tr>
<td>disaster</td>
<td>Informed recipient</td>
</tr>
</tbody>
</table>
Polling Question 9:

Logistics for Kidney travel are:

a. _Provided by UNOS_

b. _Complicated and a nightmare to set up_

c. _Arranged in combination with the transplant centers involved, Courier, OPO’s and UNOS_

d. _More difficult for the donor_
UNet\textsuperscript{SM} Post-transplant Data Reporting Pertinent to KPD
# Adult Kidney Transplant Recipient Registration Worksheet

**Recipient Information**

<table>
<thead>
<tr>
<th>Name</th>
<th>DOB</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSN</td>
<td>Gender</td>
</tr>
<tr>
<td>HIC</td>
<td>Tx Date</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>State of Permanent Residence:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Permanent Zip:</td>
<td></td>
</tr>
</tbody>
</table>

**Provider Information**

Recipient Center:

| Surgeon Name: |  |
| NPI#:         |  |

**Donor Information**

UNOS Donor ID #:

Donor Type:

**Patient Status**

Primary Diagnosis:

Specify:

Date: Last Seen, Retransplanted or Death:

- LIVING
- DEAD
### Kidney Preservation Information:

<table>
<thead>
<tr>
<th>Time Type</th>
<th>Time Units</th>
<th>ST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Cold ischemia Time Right Ki (OR EN-BLOC): (if pumped, include pump time)</td>
<td>hrs</td>
<td>ST=</td>
</tr>
<tr>
<td>Total Warm Ischemia Time Right Ki (OR EN-BLOC): (Include Anastomotic time)</td>
<td>min</td>
<td>ST=</td>
</tr>
<tr>
<td>Total Cold ischemia Time Left Ki (if pumped, include pump time)</td>
<td>hrs</td>
<td>ST=</td>
</tr>
<tr>
<td>Total Warm ischemia Time Left Ki (include Anastomotic time)</td>
<td>min</td>
<td>ST=</td>
</tr>
</tbody>
</table>
Patient Need Dialysis within First Week: * YES NO
Polling Question 10:

Accurately recording the preservation time on shipped living donor kidneys in UNet℠ is important because:

a. It will determine if warm ischemic time over 45 minutes is injurious to the living donor kidney
b. Correlating Cold Ischemic time and kidney function will demonstrate the safety of shipping live donor kidneys
c. UNOS needs more data to analyze
d. It will determine the safety of donors traveling
Acknowledgements

Nikki Lawson, RN
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Paul Sikorski
Jessica Badders
Katherine Stegner, RN
Mary Kaiser, MSW
David Edwin, PhD
Robert Montgomery, MD
Andrea Zachary, PhD
Dorry Segev, MD
Nabil Dagher, MD
Niraj Desai, MD
Mo Allaf, MD
Edward Kraus, MD
Nada Alachkar, MD
Karl Womer, MD
Hamid Rabb, MD
Cindy Grisbach
Sue Shirey
Karen King, MD
Mary Jo Holechek, RN, CRNP

OPTN

UNITED NETWORK FOR ORGAN SHARING

UNOS DONATE LIFE®
Summary

- Logistics of KPD are complex and seems overwhelming at times
- Key to successful navigation is good communication
  - Between both centers involved in a match
  - Between all centers involved in an exchange
  - With donors and candidates
  - With hospital team: transplant, lab, OR etc.
  - With UNOS
  - With Courier and/or OPO
- UNOS KPD Team is here to help

Ruthanne.Hanto@UNOS.org
KidneyPairedDonation@UNOS.org
804-782-4770 *NEW*
Demystifying the OPTN Kidney Paired Donation Pilot Program

Navigating the Logistics of KPD

Ruthanne L Hanto RN, MPH
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