Continuous Distribution of Kidneys and Pancreata Concept Paper

OPTN Kidney & Pancreas Transplantation Committees
Purpose of Concept Paper

- Introduce the kidney and pancreas communities to the project
- Update the community on the progress to date
- Seek community feedback to help inform the new allocation framework
Concept Paper

- Provides overview of Continuous Distribution and the policy development approach
- Summarizes the attributes considered by the Kidney and Pancreas Committees
- Outlines how these attributes align with NOTA and the Final Rule
- Seeks community feedback
Overview of Continuous Distribution Project

- Continuous distribution will replace the current classification-based allocation system with a points-based allocation system.
- Continuous distribution will rank waiting list candidates in a points-based framework based on various attributes.
Rationale

- Provide a more equitable approach to matching kidney and pancreas candidates and donors
- Remove hard boundaries that prevent kidney and pancreas candidates from being prioritized further on the match run
- Consider multiple patient attributes all at once through a composite allocation score instead of within categories by sequence
- Establish a system that is flexible enough to work for each organ type
- Having a uniform system will make future policy changes faster
Current State vs. Future State

Classification Based System

<table>
<thead>
<tr>
<th>Classification</th>
<th>Candidates that are</th>
<th>And registered at a</th>
<th>With this donor blood type:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>O-AB0 mismatch, CPRA equal to 100%, blood type identical or permissible</td>
<td>250NM</td>
<td>Any</td>
</tr>
<tr>
<td>2</td>
<td>CPRA equal to 100%, blood type identical or permissible</td>
<td>250NM</td>
<td>Any</td>
</tr>
<tr>
<td>3</td>
<td>O-AB0 mismatch, CPRA equal to 100%, blood type identical or permissible</td>
<td>Nation</td>
<td>Any</td>
</tr>
<tr>
<td>4</td>
<td>CPRA equal to 100%, blood type identical or permissible</td>
<td>Nation</td>
<td>Any</td>
</tr>
<tr>
<td>5</td>
<td>Prior living donor, blood type identical or permissible</td>
<td>250NM</td>
<td>Any</td>
</tr>
<tr>
<td>6</td>
<td>Registered prior to 16 years old, blood type identical or permissible</td>
<td>250NM</td>
<td>Any</td>
</tr>
<tr>
<td>7</td>
<td>Medically Urgent</td>
<td>250NM</td>
<td>Any</td>
</tr>
<tr>
<td>8</td>
<td>O-AB0 mismatch, CPRA equal to 95%, blood type identical or permissible</td>
<td>250NM</td>
<td>Any</td>
</tr>
<tr>
<td>9</td>
<td>CPRA equal to 95%, blood type identical or permissible</td>
<td>250NM</td>
<td>Any</td>
</tr>
</tbody>
</table>

Points Based System

[Image showing allocation of kidneys from deceased donors with KIPS scores greater than 35% but less than 35%]
Workgroup’s Progress

- Project Goal: Change allocation from a classification-based system to a points-based system
# Kidney and Pancreas Specific Goals

<table>
<thead>
<tr>
<th></th>
<th>Medical Urgency</th>
<th>Post-Transplant Survival</th>
<th>Candidate Biology</th>
<th>Patient Access</th>
<th>Placement Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Kidney Goals</strong></td>
<td>Prioritize those with high mortality due to imminent loss of dialysis</td>
<td>Increasing graft/longevity matching</td>
<td>Increase transplant opportunities for patients who are medically harder to match</td>
<td>Appropriate transplant access</td>
<td>Consider resource requirements required to match, transport, and transplant an organ</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Pancreas Goals</strong></td>
<td>Prioritize sickest candidates first to reduce waiting list mortality</td>
<td>Prioritize candidates who are expected to survive for at least one year after receiving a transplant</td>
<td>Increase transplant opportunities for patients who are medically harder to match</td>
<td>Increase transplant access for patients under the age of 18 and patients who previously donated an organ or part of an organ</td>
<td>Consider resource requirements required to match, transport, &amp; transplant an organ</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Identified Attributes

<table>
<thead>
<tr>
<th>Kidney</th>
<th>Medical Urgency</th>
<th>Post-Transplant Survival</th>
<th>Candidate Biology</th>
<th>Patient Access</th>
<th>Placement Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Medical Urgency Definition</td>
<td>HLA Matching</td>
<td>Blood Type*</td>
<td>Prior Living Donors*</td>
<td>Travel Efficiency</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EPTS</td>
<td>CPRA*</td>
<td>Pediatrics*</td>
<td>Proximity Efficiency</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ischemic Time</td>
<td></td>
<td>SLK Safety Net</td>
<td>Dual vs. Single</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Waiting Time*</td>
<td>En Bloc</td>
</tr>
<tr>
<td>Pancreas</td>
<td>KP vs. Pancreas vs. Islets</td>
<td>HLA Matching</td>
<td>Blood Type*</td>
<td>Prior Living Donors*</td>
<td>Travel Efficiency</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ischemic Time</td>
<td>CPRA*</td>
<td>Pediatrics*</td>
<td>Proximity Efficiency</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>PAK</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Waiting Time*</td>
<td></td>
</tr>
</tbody>
</table>

*Also identified as a kidney-pancreas attribute

**Islets and Facilitated Pancreas were also identified as attributes of non-utilization
Next Phase of the Project

- For each attribute, the Workgroup will develop rating scales and weights to build a draft framework.

**Rating Scale**
- A rating scale describes how much preference is provided to candidates within each attribute.
- Rating scales are derived from clinical and operational data or value judgements.

**Weights**
- Weights reflect the relative importance or priority of each attribute toward our overall goal of organ allocation.
- Combined with the rating scale and each candidate's information, this results in an overall composite score for prioritizing candidates. Weights are derived from value-based decisions.
Building the Framework

1. **Attribute**: Discuss each attribute individually.
2. **Rating Scale**: Determine rating scale for each attribute.
3. **Weight**: Determine weight for each attribute compared to other attributes.
4. **Build & Adjust**: Use Workgroup’s decisions to build draft framework and adjust as needed.
Milestones: Continuous Distribution of Kidneys and Pancreata

2020
- Began work: August

2021
- Concept Paper: August - October

2022
- Progress Update Paper: January - March
- Policy Proposal: Public Comment: August - October
- OPTN Board of Directors: December

2023
- Implementation
What do you think?

- The Workgroup requests feedback from the community on:
  - Additional attributes to be considered
  - Thoughts on rating scales and weights for attributes

- Additionally, the concept paper contains specific questions on:
  - Measures of efficient management for organ placement
  - Importance of waiting time and waiting time inversion
  - Pediatric priority points
  - Longevity matching
  - How to factor in “hard-to-place” kidneys
  - How dual and en bloc kidney allocation should be operationalized
Next Steps

- Review community feedback
- The Workgroup will:
  - Discuss each attribute individually
  - Determine rating scale for each attribute
  - Determine weight for each attribute compared to other attributes
  - Use Workgroup’s decisions to build draft framework
  - Continuously update community on Workgroup’s progress