

Update on the Continuous Distribution of Kidneys

OPTN Kidney Transplantation Committee

Purpose of Update

- Share progress on continuous distribution of Kidneys and the Committee's work on efficiency
 - Expanded modeling capabilities to assess non-use in policy development
 - Developing a data-driven definition of “hard to place”
 - Developing a kidney expedited placement policy
- Share next steps towards finalizing a continuous distribution proposal

Board Resolution on Efficiency in CD

- On September 5th, 2023, the OPTN Board of Directors approved a resolution directing the Kidney and Pancreas Committees to incorporate the following goals into the Continuous Distribution project:
 - Decreased non-use and non-utilization of kidneys and pancreata
 - Decreased out of sequence allocation of kidneys
 - Consideration of an expedited placement pathway for kidneys
- This update further describes the Committee's efforts to incorporate these goals and develop the continuous distribution framework

Update: Simulation Modeling

- Working with Scientific Registry of Transplant Recipients (SRTR) and Massachusetts Institute of Technology (MIT) on modeling & optimization
- February 2024: Committee requested that SRTR update their allocation simulation model (OASIM) to incorporate non-use and efficiency metrics:
 - Utilization and non-use of deceased donor kidneys
 - Timing and sequence number at acceptance, including volume of organs accepted after sequence 100
 - Cold ischemic time
 - Equity in access, specifically for recipients of high KDPI and “hard to place” kidneys

Update: Modeling and Optimization

- November 2024: SRTR reported success in modeling the non-use metric
 - Able to assess non-use without negative impact on ability to assess other metrics
 - The SRTR's full report can be found on the OPTN site
- Committee will use modeling to understand impacts of CD on non-use and optimize for all the Committee's equity and efficiency goals
 - MIT is currently working to incorporate new sub-models into optimization processes
- Committee is considering several potential efficiency-specific modifications to the match run to support decreased non-use goals
 - These modifications are outlined further in the update paper

Update: Defining “Hard to Place”

- “Hard to place” definition will establish an evidence-based standard to describe which kidneys are at increased risk of non-use, and thus may require alternate allocation pathways
- Multi-pronged approach incorporating clinical criteria, allocation thresholds, and cold ischemic time
 - Incorporates both pre-recovery (predictive) and post-recovery (identified) characteristics
 - **Identified** “hard to place” kidneys utilizes allocation and cold ischemic time criteria in real time
 - **Predictive** “hard to place” kidneys leverages clinical predictors of non-use risk

Update: “Hard to Place” Criteria

- Potential criteria to be considered in combination for kidneys with KDPI 50+:
 - Six hours of cold ischemic time
 - Sequence 100 or higher
 - Hypertension history greater than 5 years
 - Donor age 60 or older
 - Diabetes greater than or equal to 5 years
 - DCD donor
 - Glomerulosclerosis greater than 10% on at least one kidney
 - Donor use of continuous renal replacement therapy
- Committee to review further data to determine how many criteria must be met to be considered “hard to place”
 - Committee may modify, remove, or add to the criteria based on data review and public comment feedback

Update: Kidney Expedited Placement

- Committee is sponsoring a Kidney Expedited Placement Workgroup
 - Representation from OPO, Operations and Safety, Transplant Coordinators, and Ethics Committee
 - Previously, collaborated with the OPTN Expeditious Task's Rescue Pathways Workgroup
 - Supported development of expedited placement protocols under *Expedited Placement Variance* policy
- On August 30, HRSA provided a critical comment to the OPTN regarding allocation out of sequence
 - Included directive to OPTN to pause implementation and development of protocols under the *Variance*
- Previous public comment feedback supports a standard, transparent, and effective expedited placement pathway for kidneys at increased risk of non-use

Update: Kidney Expedited Placement Policy

- October 2024: Committee opted to pursue a national kidney expedited placement policy
 - Policy based on current kidney allocation, to be modified later for continuous distribution
- Kidney Expedited Placement Workgroup is working on this expedited placement pathway
 - Leveraging previous discussions regarding potential expedited placement frameworks
 - Key components of this framework are detailed in the Update

What do you think?

- Do you support the factors identified by the Committee to develop a preliminary definition of “hard to place?”
- Should historical organ offer acceptance patterns be used to qualify transplant programs to participate in expedited placement?
- Are there other changes that should be incorporated into kidney continuous distribution to promote efficiency?