Introduction

The Kidney & Pancreas Transplantation Committee Continuous Distribution Workgroup (the Workgroup) met via Citrix GoToMeeting teleconference on 8/5/2022 to discuss the following agenda items:

1. Updates
2. Review: Released Organs
3. Discussion: Dual Kidney Allocation

The following is a summary of the Workgroup’s discussions.

1. Updates

The Workgroup was reminded that the Continuous Distribution of Kidneys and Pancreata Update is currently out for public comment and members were encouraged to provide feedback and invite their colleagues to review the update as well.

The Workgroup was also informed that two additional Workgroups are being created to help support maintaining the continuous distribution project timeline. All Workgroup recommendations will be reviewed by the Kidney and Pancreas Committees for endorsement.

- Operational Considerations Workgroup
  - Will focus on operational components and system functions outside of the composite allocation score, including dual kidney allocation, Kidney Minimum Acceptance Criteria Tool (MAC), and facilitated pancreas
- Review Board Workgroup
  - Will focus on the development of review boards and review board framework for both Kidney and Pancreata

Summary of discussion:

There was no discussion.

2. Review: Released Organs

The Workgroup reviewed previous discussions regarding released organs and their recommendation.

Current Policy

- Kidney
  - Give host organ procurement organization (OPO) the option to:
    - Continue allocation according to the original match run
• Use a released kidney match run, using the location of the kidney when it is released.
  • Pancreas, Kidney-Pancreas (KP), Islets
    o Continue down the match run
    o Allocate pancreas, KP, islets to a potential recipient at the transplant program that originally accepted the organ(s)

Workgroup Recommendation
• Kidney
  o Give host organ procurement organization (OPO) the option to:
    ▪ Continue allocation according to the original match run
    ▪ Use a released kidney match run, using the location of the kidney when it is released.
      • Incorporate an increased placement efficiency weight for released match runs
• Pancreas, KP, Islets
  o Maintain existing policy (OPO may continue allocation according to the original match run, or may use center backup)

Summary of discussion:
A Chair inquired if there was discussion about increasing the placement efficiency weight for the pancreas released match run, like there was for kidney. The Chair noted that keeping the pancreas local would be very important. Staff explained that the pancreas policy does not have a released match run requirement like kidney policy does – released pancreata are allocated to a recipient at the hospital where they were initially offered.

There was no further discussion.

3. Discussion: Dual Kidney Allocation
The Workgroup discussed how dual kidney allocation can be incorporated into continuous distribution.

Presentation Summary:
Previous discussions:
• Dual is a classification for kidneys with a kidney donor profile index (KDPI) 35-100 percent (Sequence C and D)
  o Centers opt in to receive dual offers
  o Candidates appear twice on match run – once for single and again for dual
• Monitoring report shows nearly half (44.44%) of duals are allocated from the single sequences
  o Done to avoid organ wastage (cold ischemic time, late refusals, etc.)
  o Match run is too long
• Goal: transition dual allocation into continuous distribution framework
  o Address identified inefficiencies with minimal system impact

Workgroup and OPO Committee Leadership Feedback:
• Support for dual-accepting candidates appearing once on the match run
• Support for OPO discretion
• Support for clear policy threshold to be able to offer dual
• Need for system tool(s) to be able to exclude single-offer only candidates
• Need for education for transplant programs on opting candidate in for dual offers
Dual Kidney Data Request – Criteria:

- What candidates are currently taking single vs. dual kidneys by KDPI group?
  - Kidney transplant recipients by KDPI group and single vs. dual kidney (excluding en bloc)
  - Stratify by recipient characteristics, KDPI, and single vs dual:
    - Age
    - Calculated Panel Reactive Antibodies (CPRA)
    - Primary diagnosis
    - Estimated Post-Transplant Survival Score
    - Dialysis Time
    - Blood Type

- Donor Criteria
  - Deceased kidney donors by KDPI group and single vs. dual kidney
  - Stratify by donor characteristics, KDPI, and single vs. dual:
    - Age
    - Completed biopsy
    - Donor after circulatory death (DCD)
    - Serum creatinine
    - Glomerulosclerosis
    - Diabetes
    - Hypertension

Summary of discussion:

A Chair remarked that the 35 percent KDPI to 85 percent KDPI categorization encompasses a huge range, and that a 38 percent KDPI kidney should be allocated differently than an 84 percent KDPI kidney. The Chair noted that the donor characteristics seem standard, but that other characteristics, such as difference in size of kidney, are not standardized, but may still factor into the decision to accept a dual kidney.

Staff highlighted that the donor and recipient criteria could differ for different KDPI levels. Staff also mentioned that this is not a final decision and that the characteristics the Workgroup would like to include in a potential data request would help to inform future decisions.

One Chair pointed out that the KDPI 35-85 percent sequence is based on the Sequence C classification in the current kidney allocation, which continuous distribution will move away from. The Chair continued that the Workgroup should recognize that one approach is not necessarily needed for each of the existing KDPI-based allocation sequences.

One of the Workgroup Chairs remarked that their program really considers candidate age when considering dual kidneys. Chair explained that, even when using age 50 as a cut off, there is a lot more that goes into recipient selection than what is presented in the potential data request, such as coronary artery disease and calcification in the vessels. The Chair continued that any candidate factor could really be limited to just age. The Chair added other candidate factors, such as a high sensitization level, may mean really that a program would accept an organ that they otherwise may not. The Chair noted that it would be unlikely to transplant a dual kidney into a younger recipient, as those are typically marginal kidneys.

Staff mentioned that, from a data perspective, the Workgroup could look at recipients who are currently taking KDPI 35-85 percent kidneys as single and identify the characteristics that they have in common, such as age and calculated panel reactive antibody (CPRA) level. In one potential solution, the Workgroup could give consideration to the balance of utility and equity, and decide that it was critical to
ensure certain candidates continue to receive single organ offers, and that 35 percent kidneys continue to be offered as single to those candidates who have accepted them as such in the current system. To do this, the Workgroup could take a historic sample of candidates that have accepted a single KDPI 35 percent kidney, and converting their scores to composite allocation scores (CAS), establish a CAS threshold at which 90 percent of candidates currently accepting single, 35 percent KDPI kidneys continue to receive those single offers. Staff noted that the Workgroup could look at the distribution of KDPI for accepting these organs as single and dual.

One of the Chairs remarked that data would be very helpful to developing dual kidney allocation in continuous distribution. The Chair noted that candidate and donor factors should be incorporated, particularly if it will increase utilization.

Staff asked if there were any factors listed that were not useful, or should be added. A member recommended the addition of candidate body mass index (BMI). The member explained that programs will typically look at a computerized tomography (CT) scan of the recipient, but as that information is not readily available for research purposes, BMI could be utilized in its place. The member estimated that duals are likely being allocation and transplanted into lower BMI patients, from a technical standpoint.

One Workgroup Chair commented that age will likely be the most useful candidate factor to gather data on. The Chair continued that sensitization level may not influence much, but it could be helpful to know. With regards to primary diagnosis as a candidate factor, the Chair explained that some diabetics may be ruled out for dual kidney transplants, particularly if they begin developing coronary artery disease. The Chair continued that EPTS will definitely be helpful, and wondered if dialysis time was considered when other programs determined if a dual kidney was appropriate. The Chair added that HLA matching was not likely a consideration, similarly to blood time. The Chair agreed that BMI could be useful, but could depend on the surgeon’s preference. The Chair explained that some surgeons will only transplant duals into larger candidates, while others will transplant one kidney on each side and so prefer smaller candidates.

Staff asked the Workgroup to consider if there was a KDPI at which the OPO could just offer duals at their own discretion, and these rules would only come into play for certain KDPI kidneys. One Chair noted that the decision needs to be driven by data on how many KDPI 35 to 50 percent kidneys are transplanted dually, as well as the characteristics on dual transplants to date and where the growth opportunity is. The Chair continued that the data request is necessary to shape this, as is OPO feedback. The Chair added that the Workgroup shouldn’t massively change the system ahead of what people are doing.

The Workgroup supported the submission of a data request to inform conversation around criteria for dual kidney allocation, and supported including both candidate and donor factors in that data request.

One member suggested looking into the sequence at which dual kidneys are being accepted, to get an idea of the range of how far down the match run programs are accepting these organs. The member explained that such a number could be useful in determining a threshold of where dual kidneys are currently allocated. Staff noted that the current policy could also influence this, as candidates appear on the match run twice if they are opted in to receive dual offers. If the Workgroup moves away from something like that, the system could look different. One of the Chairs recommended looking into the cold ischemic time that dual kidneys are utilized at. The Chair noted that for complex donors, such as a donor with a high hemoglobin A1c, history of diabetes or hypertension, and high glomerulosclerosis, low cold ischemic times are critical to utilization. The Chair explained that the current cold time threshold could help guide the new policy. Staff agreed that such a threshold could be based in cold ischemic time.
Another Chair noted that anticipated cold ischemic time due to travel should also be considered, and that more language than just a cut off time will be necessary.

A Chair recommended looking at distance from donor hospital as well, explaining that marginal kidneys are more likely to be used locally than traveling further out.

**Upcoming Meetings**

- August 19, 2022 (Teleconference)
Attendance

- **Workgroup Members**
  - Martha Pavlakis
  - Rachel Forbes
  - Oyedolamu Olaitan
  - Alejandro Diez
  - Caitlin Shearer
  - Parul Patel
  - Rachel Engen

- **HRSA Representatives**
  - Jim Bowman
  - Marilyn Levi

- **SRTR Representatives**
  - Bryn Thompson
  - Jon Miller

- **UNOS Staff**
  - Lindsay Larkin
  - Kayla Temple
  - Rebecca Brookman
  - Matt Cafarella
  - Alex Carmack
  - Alison Wilhelm
  - Ben Wolford
  - Darby Harris
  - James Alcorn
  - Jesse Howell
  - Joel Newman
  - Kaitlin Swanner
  - Keighly Bradbrook
  - Lauren Mauk
  - Rebecca Fitz Marino