

**OPTN Kidney and Pancreas Transplantation Committees
Utilization Considerations of Kidney and Pancreas Continuous Distribution Workgroup
Meeting Summary
May 8, 2023
Conference Call**

Valerie Chipman, RN, BSN, Chair

Introduction

The OPTN Utilization Considerations of Kidney and Pancreas Continuous Distribution Workgroup (The Workgroup) met via Citrix GoTo teleconference on 5/8/2023 to discuss the following agenda items:

1. Recap: Kidney Minimum Acceptance Criteria Overview
2. Discussion: Kidney Minimum Acceptance Criteria Screening Elements

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

1. Recap: Kidney Minimum Acceptance Criteria Overview

Staff provided a recap overview of the Kidney Minimum Acceptance Criteria (KiMAC) screening tool, and the Workgroup discussed how to transition the tool and its efficiencies into a continuous distribution framework.

Presentation summary:

The Kidney Minimum Acceptance Criteria (KIMAC) provides screening at the transplant program-level and is applied to "national" offers by the OPTN Contractor. "National" offers are defined as offers made to candidates outside of 250 nautical miles of the donor hospital. This distance acts as a surrogate for "hard to place." The KIMAC is not applied to high calculated panel reactive antibody (CPRA) candidates or O-ABDR mismatch candidates.

Transplant programs provide information about the kinds of offers they want to receive from more than 250 nautical miles away for their non-CPRA, non-O-ABDR mismatch candidates in the OPTN Waitlist System under "kidney program minimum" criteria. When the OPTN Contractor runs the KiMAC, the tool will take this data and apply bypasses for programs who have indicated they would not accept and do not want to consider those donor kidneys.

In a continuous distribution framework, there will not be a clear "national" allocation. The OPTN Kidney Pancreas Continuous Distribution Workgroup determined that, because of this, OPOs will no longer be required to contact the Organ Center for assistance in allocating kidneys at a "national" level. As a result, however, the Organ Center will not always have an opportunity to apply this screening tool. The KiMAC tool will need to be transferred over to broader use in order to maintain efficiency on long match runs and avoid any increase in offers programs have indicated they are not interested in accepting. Application of the tool will need to be consistent across match runs and donors, and may need to mirror its existing state as close as possible.

The ultimate goal is to streamline filtering and screening tools into one easy to use system for transplant programs and OPOs. However, this will require a phased approach. The KIMAC tool will operate alongside Offer Filters and Acceptance Criteria in the first iteration of continuous distribution. The

Workgroup is charged with determining how to best transition the KIMAC tool to a continuous distribution model in order to maintain efficiency.

Summary of discussion:

The Workgroup had no questions or comments.

2. Discussion: Kidney Minimum Acceptance Criteria Screening Elements

The Workgroup reviewed specific criteria and recommended which elements should be carried over.

Presentation summary:

The Workgroup will recommend which criteria should be carried over into the updated KIMAC tool. To inform these discussions, each data point is evaluated for effectiveness based on median percentage of transplant programs bypassed from a match run. In reviewing the criteria, Workgroup members were asked to consider which elements provide significant efficiency benefit that should be carried over, or those elements that provide little efficiency benefit and could be removed to streamline transplant program responses.

The Workgroup reviewed the following criteria and considerations:

Donor History and Management

- Unknown cause of death
- Meningitis as cause of death
- Adult donor had prolonged hypotension (<70 mm/Hg systolic) for:
 - Duration between less than 1 hour to greater than 12 hours
 - Not frequently used in current system- will not lose screening by not transferring over
- A history (and duration) of cancer other than a primary brain tumor
 - Screens up to 68 percent of programs depending on duration
- A primary brain tumor that is:
 - Malignant (glioblastoma, astrocytoma, medulloblastoma) or non-malignant (meningioma, ependymoma, neuroblastoma)
 - Not frequently applicable
- Donor has signs of infection, including an elevated white blood cell count (WBC) (final > 17,000) and temperature (>100F for 12 hours)
 - Donor has to meet both
- Donor has a perforated colon, small bowel, or stomach?
- Donor has disseminated intravascular coagulation (DIC) that was corrected
- Donor has DIC that was not corrected

Anatomy Questions

- Does the kidney have any of these abnormalities?
 - Horseshoe kidney?
 - Polycystic kidney disease?
 - Infarcted > 20 percent?
 - Completely decapsulated?
 - These questions are not often applicable
- Does the kidney have soft plaque in the renal artery?
 - Screens less than 5 percent of transplant centers
- Does the kidney have hard plaque in the renal artery?

- Screens between 0-78 percent of programs depending on severity (mild, moderate, severe, ulcerative)
- Is the length of kidney 2cm or more smaller than the length of the other?
 - Screens median of 10 percent of programs when applied
 - Infrequently applied

Summary of discussion:

The Workgroup reviewed and made recommendations for current KIMAC criteria.

Donor History and Management

The Workgroup agreed to remove the following data elements:

- Unknown cause of death
- Meningitis as cause of death
- Adult donor had prolonged hypotension
- A history (and duration) of cancer other than a primary brain tumor
- A primary brain tumor that is malignant or non-malignant
- Warm ischemic time
- Signs of infection
- Perforated colon, small bowel, or stomach
- Donor with DIC, corrected or not corrected

Workgroup members commented these data elements do not provide significant screening efficiency, and would increase burden with little benefit. For the cancer-related elements in particular, members commented the criteria is too broad as a program is not able to specify which types of cancers. Members also commented there is not community agreement on how warm ischemic time is defined and it varies between programs and organ procurement organizations (OPOs).

Anatomy Questions

The Workgroup supported maintaining “horseshoe kidney”, “polycystic kidney disease”, and “infarcted >20%” in the abnormality criteria. The Workgroup agreed to remove “completely decapsulated” from this criteria, noting this was rare. Additionally, the Workgroup agreed to remove the “does the kidney have soft plaque in the renal artery?” element as it provides minimal screening benefit. However, the Workgroup recommended maintaining the “Does the kidney have hard plaque in the renal artery?” element, as this element provides screening efficiency.

For the “Is the length of kidney 2cm or more smaller than the length of the other?” element, members commented OPOs collect information on length and width of each kidney which could be entered as a data element for the system to determine size matching. Staff commented the current system does not account for this type of specific interaction and could be complicated to build. Members commented the complexity of building that interaction would outweigh the benefits. The Workgroup recommended removing this criteria.

Next Steps:

The Workgroup will continue reviewing KIMAC criteria. On their next call, the Workgroup will begin discussing where on the match run the KIMAC should apply.

Upcoming Meeting:

- May 18, 2023

Attendance

- **Workgroup Members**
 - PJ Geraghty
 - Renee Morgan
 - Colleen Jay
 - Jaime Myers
 - Jillian Wojtowicz
 - Valerie Chipman
 - Sharyn Sawczak
- **HRSA Staff**
 - Jim Bowman
 - Marilyn Levi
- **SRTR Staff**
 - Ajay Israni
- **UNOS Staff**
 - Kayla Temple
 - Lindsay Larkin
 - Ben Wolford
 - Carly Layman
 - Carol Covington
 - James Alcorn
 - Kieran McMahon
 - Joann White
 - Joel Newman
 - Thomas Dolan
 - Lauren Motley
 - Keighly Bradbrook
 - Lauren Mauk
 - Kim Uccellini
 - Krissy Laurie
 - Rachel Hippchen
 - Rebecca Fitz Marino
 - Sarah Booker