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| **PROTOCOL TITLE:** Kidney and Pancreas Pre-Transplant: Waitlist Workflow Procedure | |
| **APPLICABLE FACILITIES:**  ☐EHC ☐EDH ☐EHH ☐EHI ☐EHN ☐EJCH ☐ELTAC ☒ESJH  ☒EUH ☐EUHM ☐EUHS ☐EUOSH ☐EWWH ☐RJV-ERH ☐RJV-ESOP ☐TEC/ESA | |
| **EFFECTIVE DATE:** 9/14/2022 | **ORIGINATION DATE:** 12/10/2021 |

**CATEGORY:** Diagnostic/Therapeutic/Preventive Guidelines

**LEVEL:** Independent

**SCOPE:** All transplant program physicians, practitioners and clinical staff members may be aware of this clinical protocol.

**PURPOSE:**

The following is a summary of the kidney/pancreas transplant waitlist team procedure. The goal of this procedure is to maximize candidate readiness for transplantation, while also focusing team/coordinator resources on patients who have been identified as having the most UNOS priority (i.e., will most likely receive an immediate offer). This procedure emphasizes activity on three populations of waitlist patients. A smaller group of patients that may need more intensive, regular coordinator attention, a larger group of patients who have at least moderate priority that need routine coordinator involvement, and another group of patients beyond the larger group of patients.

Through the waitlist Rapid Improvement Event (RIE) we have identified that under optimal conditions approximately 750 patients are needed at full transplant readiness to reach our goal transplant rate given the current organ offer circumstances. Most of these patients will be on the “Large List of Patients” or LLP. Furthermore, we will also recognize that approximately (~100) patients with very high priority who will likely receive an offer almost immediately upon listing activation. These patients will be on the “List of Top Priority Patients” or TPP.

**CONTENT:**

*Tier 1: Top Priority Patients (TPP)*

The data analyst team will define the TPP based on donor blood type frequency and UNOS candidate priority types (see Table 1).

* The coordinator will review their list of patients for a status review with the physician and presentation at the Pre-Transplant Watchlist Team Meeting (PTWT).
* During the PTWT each coordinator will present the status of their Top Priority Patients (TPPs).
  + TPPs have, in theory, already seen nephrology recently and have completed important testing and/or consults
  + These reviews will be more rapid after initial PTWT presentation
    - Will involve presenting working list or dashboard during PTWT *including*:
      * Patient name
      * EMPI or Medical Record number
      * Age
      * Patient’s ABO
      * Original Review date
      * Most Recent Review date
      * Nephrology Evaluation date
      * Full Evaluation date
      * Conference date
      * Primary UNOS Listing Diagnosis
      * Listing date and listing status (active vs. inactive)
      * Patient Re-Eval status
      * Current Status
      * Progress/Tests, Consults needed
      * Patient’s UNOS Priority Rank
  + Identify any barriers to transplant before PTWT and address immediately.
    - Yes, barriers exist:
      * Absence of recent testing/consults
        + ***During coordinator pre-work***, any consults and tests previously requested by Nephrology are to be ordered
        + The patient can be listed inactive while these tests are obtained.
        + Initial PTWT presentation will likely include age, gender, ESRD cause, brief PMH/PSH, date of last nephrologist appointment with recommendation and list of consults/tests that are still pending
        + Status changes do not require presentation at PTWT for processing.

Cases of physician uncertainty about candidacy (such as anatomical/surgical suitability) will require medical record messaging to a second physician or surgeon. If the second physician has uncertainty the patient can be reviewed at PTWT.

* + - No, barriers don’t exist:
      * In this scenario, the case has likely previously been reviewed and confirmed ready for transplant
        + PTWT presentation: Provide the patient’s name and conference review date *but the coordinator must always confirm during pre-work on chart review if any changes have occurred. Search the medical record from last review date to confirm.*
        + If changes or new barriers are identified the coordinator should forward a Waitlist Conference note to the physician in the medical record for their status change signature (signing during PTWT not needed, unless 2 physician review criteria meet as described above).

* Patients will typically only come off the TPP if they are transplanted or made NAC, however:
  + Approximately every 4 weeks new high CPRA patients are added to the TPP and previous high CPRA patients will be moved from the TPP to the LLP.
* Inactive cases may remain on the TPP
* Any newly assigned TPPs will need to be presented at PTWT *within one week* of assignment (if UNOS priority rank is higher than other TPPs)
* In addition to nephrologist, patients on the TPP list may be scheduled to be seen by an advanced practice provider (APP)

*Tier 2: Large List Patients (LLP)*

* To address the larger group of patients for general readiness, our data analyst team will identify approximately 160 patients for each of the four coordinators according to the UNOS high priority and donor blood type frequency.
  + Patients will be scheduled for a Nephrology Waitlist Re-evaluation Consultation as soon as possible. Patients on the LLP list may be scheduled to be seen by an APP. Patients scheduled should be distributed equally amongst all available providers.
  + Potential transplant candidates in this patient population may be scheduled for the nephrology or APP consultation every 1 year.
* After the appointment is scheduled, the scheduler will notify the waitlist coordinator according to a predetermined alphabetical agreement with the coordinators of the Nephrology or APP appointment date.
  + The waitlist coordinator will update the patients on their personal list of LLPs (ideally in order of UNOS priority rank) with the Nephrology appointment date for regular, but only necessary, surveillance (*Case check approximately once every two months, see Table 2 below*).
  + LLPs will generally not be presented at PTWT unless noted below.
* The nephrologist or APP will perform a consultation and document a note of the patient’s candidacy which will likely fall into one of three different possibilities:
  + Benefit from transplant likely outweighs risk with no further work up required.
    - The coordinator will create a Transplant Waitlist Conference note and send communication via electronic medical record messaging for the physician to review and sign. This note will confirm that the patient has full readiness for transplant and is appropriate for active listing (if they are not active already). These cases do not require presentation at PTWT.
  + Benefit from transplant likely outweighs risk but depends on further work up. The nephrologist or APP will have a list of recommended studies and/or consults that are needed for the patient to reach full readiness for transplant.
    - The coordinator will order the consults and tests as recommended by the nephrologist or APP and any health maintenance testing per protocol.
    - The Patient Care Coordinator (PCC) team will schedule these tests and consults.
      * Patients should be distributed equally amongst available providers.
      * In addition to available appointments on Emory main campus, the PCC team will utilize nephrology appointments available at Outreach Clinics.
    - These cases do not require presentation at PTWT.
  + Risks of transplant may outweigh benefits and their note will document their concerns accordingly.
    - Under these circumstances, the coordinator will create a Transplant Waitlist Conference note for the physician to review the case and confirm that the patient is not a candidate for transplant.
      * The patient, referring provider, and dialysis center will then be sent a- Not a Candidate letter.
      * The patient will then be removed for the UNOS Waitlist, due to identified reason.
    - These cases do not require presentation at PTWT.
      * In cases of physician uncertainty about candidacy (such as anatomical/surgical suitability) medical record messaging to a second physician or surgeon is necessary.
        + If the second physician can respond accordingly in the medical record and no presentation at PTWT is necessary.
        + If the second physician has uncertainty, the patient can be reviewed at PTWT.
* Coordinator review of testing/consults of LLPs will occur *after* review of TPPs
* LLPs should receive at least one chart review every two months based on the following calculations:
  + ~750 patients/4 coordinators means ~ 188 patients/coordinator
  + ~100 TPPs/4 coordinators means ~25 patients/coordinator at all times
  + Each coordinator will have approximately 25 TPPs and ~160 LLPs for ~185 patients per coordinator
  + At PTWT, TPP patients are presented, the number of LLPs reviewed in the past week should be announced

**Table 1: Approximate Composition According to Rank of UNOS Priority for TPPs and LLPs**

|  |  |
| --- | --- |
| **Donor blood type (ABO Frequency)** | **UNOS Priority Groups (frequency of candidate per blood group)** |
| O 48% | High CPRA (10%) |
| A 37% | Low EPTS (30%) |
| B 11% | Consented for High KDPI (10%) |
| AB 4% | Consented for HCV (2%) |
|  | Consented for HBV (2%) |
|  | Consented for A2B transplant (2%) |
|  | Pancreas candidates (4%) |
|  | Middle cohort eligible for KDPI 20-85 donors (40%) |

**Table 2: Waitlist Workflow Example**

* TPPs in green shades are presented at PTWT
* LLPs require pre-work (as described above) and total weekly LLPs reviews are announced at PTWT.

Top Priority Patients (TPPs) at PTWT Large List Patients (LLPs) not at PTWT

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| **PTWT Session** | ***Coordinator A*** | ***Coordinator B*** | ***Coordinator C*** | ***Coordinator D*** | Reviews @ PTWT | ***Coordinator A*** | ***Coordinator B*** | ***Coordinator C*** | ***Coordinator D*** | Total LLPs |
| **Week 1** | 7 | 6 | 6 | 6 | 25 | 20 | 20 | 20 | 20 | 80 |
| **Week 2** | 6 | 7 | 6 | 6 | 25 | 20 | 20 | 20 | 20 | 80 |
| **Week 3** | 6 | 6 | 7 | 6 | 25 | 20 | 20 | 20 | 20 | 80 |
| **Week 4** | 6 | 6 | 6 | 7 | 25 | 20 | 20 | 20 | 20 | 80 |
| **Week 5** | 6 | 6 | 6 | 7 | 25 | 20 | 20 | 20 | 20 | 80 |
| **Week 6** | 6 | 7 | 6 | 6 | 25 | 20 | 20 | 20 | 20 | 80 |
| **Week 7** | 6 | 6 | 7 | 6 | 25 | 20 | 20 | 20 | 20 | 80 |
| **Week 8** | 6 | 6 | 6 | 7 | 25 | 20 | 20 | 20 | 20 | 80 |
|  | 50 | 50 | 50 | 50 | 200 | 160 | 160 | 160 | 160 | 640 |
| **Coordinator totals per week** | **~6-7 TPPs** |  |  |  |  |  |  |  |  |  |
|  | **~20 LLPs** |  |  |  |  |  |  |  |  |  |
| **Schedule example** | **Monday** | **Tuesday** | **Wednesday** | **Thursday** | **Friday** |  |  |  |  |  |
|  | **3 TPPs** | **3TPPs** | **1TPPs/ 3LLPs** | **10LLPs** | **10LLPs** |  |  |  |  |  |

*Tier 3: Patients with Qualifying Priority Pending (PQP*) – “Routine” Waitlist Visits

* The waitlist coordinator performs regular assessment of PQP that are not yet identified as TPP or LLP. This assessment may include appointments with nephrology, APP and other pre-transplant testing.
* Potential transplant candidates in this patient population may be scheduled for the nephrology or APP consultation as frequently as every 2 years.
  + Patients should be distributed equally amongst all available providers.
  + In addition to available appointments on Emory main campus, the PCC team will utilize nephrology appointments available at Outreach Clinics.

**RELATED POLICIES / PROCEDURES:**

Kidney and Pancreas Transplant Waitlist Management

**DEFINITIONS:**

N/A

**REFERENCES AND SOURCES OF EVIDENCE:**

Lentine KL, Pastan S, Mohan S, Reese PP, Leichtman A, Delmonico FL, Danovitch GM, Larsen CP, Harshman L, Wiseman A, Kramer HJ, Vassalotti J, Joseph J, Longino K, Cooper M, Axelrod DA. A Roadmap for Innovation to Advance Transplant Access and Outcomes: A Position Statement From the National Kidney Foundation. Am J Kidney Dis. 2021 Sep;78(3):319-332. doi: 10.1053/j.ajkd.2021.05.007. Epub 2021 Jul 27. PMID: 34330526.