OPTN ORGAN PROCUREMENT AND TRANSPLANTATION NETWORK

OPTN Pancreas Transplantation Committee
Meeting Minutes
May 15, 2019
Conference Call

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Introduction

The Pancreas Transplantation Committee (the Committee) met via Citrix GoToTraining teleconference on 05/15/2019 to discuss the following agenda items:

1. Pancreas Graft Failure Definition Monitoring
2. Update on Kidney-Pancreas (KP) Project
3. New Project Idea: Increased Access for Pediatric and High CPRA KP Candidates

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

1. Pancreas Graft Failure Definition Monitoring

The Committee reviewed an initial analysis of the effect of implementing a new definition of pancreas graft failure.

Data Summary

February 2018, the OPTN board approved policy went into effect clarifying definitions for when a pancreas graft has failed. Pancreas graft failure occurs when any of the following occurs:

- A recipient's transplanted pancreas is removed
- A recipient re-registers for a pancreas
- A recipient registers for an islet transplant after receiving a pancreas transplant
- A recipient's total insulin use is greater than or equal to 0.5 units/kg/day for a consecutive 90 days
- A recipient dies

Implementing the new definition included updating the Pancreas Graft Status section of Transplant Recipient Registration (TRR) form and Transplant Recipient Follow-up (TRF) form.

- New and updated data collection included:
    - Fasting C-peptide serum level
    - HbA1c level
    - Insulin use fields
    - Blood sugar control
- Insulin use fields included:
    - Insulin dosage
    - Insulin duration

The Committee reviewed data specifically to evaluating the values of c-peptide, HbA1c, and insulin use reported on OPTN adult and pediatric pancreas and KP TRR and TRF forms in conjunction with which follow-up form is being reported (i.e. at graft failure, death, or routine follow up). In summary, the data showed reported diet or oral/non-insulin injectable medication to control blood sugar tended to report the use of diet rather than medication. Insulin use reported for failed pancreas grafts were similar across the TRR and TRF. Members expressed some confusion about the new data fields, and in response to that, help documentation was added to ensure compliance and transparency regarding new requirements. In the data analysis, 9 recipients were identified as having pancreas graft failure due to total insulin use above 0.5 units/kg/day for 90 consecutive days; 2 recipients were identified who met that definition but were still reported as having functioning graft.

Summary of discussion:

A Committee member mentioned knowing several patients who were on .5 units/kg/day of insulin for 3 months and subsequently tapered off insulin dependence. This would be considered a graft failure under the current definition, but could result later in a graft that is functioning. The Committee member expressed some support for the previous definition of graft failure that included a "partial" graft failure. Another Committee member noted that insulin resistance impacts the level of insulin taken by a patient, which may impact what .5/kg/day means in terms of insulin secretion. Glucose variability may be a useful factor to include in assessing graft function because it is a better predictor of insulin secretion and complications in general. The Committee member also noted that post-transplant immunosuppression regiments and inflammation may suppress insulin secretion, so a definition should potentially take into account when the data indicating graft failure is gathered. The Vice-Chair reminded the Committee that the current pancreas graft failure was chosen as a starting point, and further analysis may result in modifying the definition.

The Committee discussed concerns that some grafts failed yet were not marked as failed grafts (2 transplants met the .5/kg/day for 3 month criteria yet were marked as functioning grafts in the cohort). Staff noted that this number may be higher depending on the missing data, which were substantial. Required fields in the TRR and TRF always have a "missing" field, which in the case of this data analysis, most often was marked "unknown" as the reason the data had not been entered. In other words, either the insulin duration or dosage was sometimes not reported because the center marked it unknown. The Committee expressed concern that grafts could be considered failed according to policy but not marked as failed by centers. A Committee member suggested looking at the missing data percentages across other TRR or TRF forms, and staff indicated this could be included in a future analysis.

Next Steps

The Committee will continue to monitor and review the data associated with the pancreas graft failure definition at regularly scheduled intervals.

2. Update on Kidney-Pancreas (KP) Project

The Committee discussed the schedule to review SRTR modeling regarding changes to pancreas and KP distribution in removing DSA and region from allocation. The KP Work Group, comprised of Pancreas Committee and Kidney Committee members, as well as members from the OPO, Minority Affairs, and Pediatric Committees, will meet May 29 and June 26. The Pancreas Committee will meet in-person in Baltimore on June 25th to review SRTR modeling and discuss a new distribution solution in allocation. The Committee will finalize a policy solution by mid-July for fall public comment. Staff clarified that webinars scheduled at the end of June would be used to get feedback from the community on the SRTR modeling prior to public comment

3. New Project Idea: Increased Access for Pediatric and High CPRA KP Candidates

The Committee discussed a new project idea to increase or create prioritization for pediatric and highly sensitized candidates waiting for a pancreas or kidney-pancreas.

Data Summary

The problem identified by the Committee is that pediatric and highly sensitized candidates may not receive appropriate prioritization in pancreas and KP allocation.

- Pediatric:
    - Although pediatric priority for single kidney, no priority for dual organ and KP specifically
    - Could impact waitlist priority and access to transplant for pediatric P/KP candidates
- Highly sensitized:
    - While kidney allocation differentiates more specifically between CPRA levels (100%, 99%, 98%, etc.), pancreas policy is less 'sensitive' to the differences in CPRA (80% higher or lower)
    - Because sensitization impacts whether a candidate could receive an organ, more stratification by sensitization could reflect appropriate prioritization of candidates with more sensitization

This new project aligns with the OPTN strategic goal to improve equity in access to transplant. The Committee needs to evaluate evidence of the problem for pediatric/highly sensitized candidates having less access to transplant in order to assess the impact of modifying allocation. Potential evidence for both KP and pancreas could include:

- # candidates pediatric/highly sensitized
- # recipients pediatric/highly sensitized
- Transplant rate of pediatric/highly sensitized
- Time to transplant for pediatric/highly sensitized

Staff also presented the Committee with two updates related to future work on the project.

- SRTR modeling:
    - The KPSAM 'baseline' model is based on previous year's data which includes DSA; the SRTR won't have data based on new circle based system until after distribution project is implemented
    - Could model CPRA/pediatric changes compared to distribution option that's chosen by committee in June/July (model to model comparison instead of model to baseline)
- IT implementation:
    - IT implementation of allocation changes takes time and effort
    - When the project goes to the Board for approval and the number of other projects that need implementing both impact when the project would be implemented
    - It's possible this could run into continuous distribution changes – trying to implement when about to change for continuous wouldn't be ideal

Summary of Discussion

A Committee member asked about data on the number of pediatric KP transplants, suggesting that there are very few KP pediatric candidates that get transplanted because pediatric candidates are less likely to get end stage renal disease (ESRD) and because of concerns about compliance. The Committee member also noted potential issues with graft failure and immunogenic challenges with pediatric KP candidates. For that reason, the Committee member suggested including graft outcomes in any data request to review evidence of the problem. Staff clarified that there were no pediatric KP transplants in 2018 according to OPTN data, but 16% of pancreas-alone transplants were pediatric (defined as age less than 18 years of age). The Vice-Chair noted that the main issue is that pediatric candidates don't get priority for KP transplants currently, and could be waiting longer for a transplant than they should.

A member noted that current data may not reflect the full population impacted by current allocation if candidates that are highly sensitized do not register for a KP because allocation doesn't currently give them sufficient prioritization (pancreas/KP allocation stratifies prioritization by CPRA 80% or higher; kidney allocation stratifies CPRA prioritization much more granularly, by individual percentage points). It was also discussed that highly sensitized candidates needing both a kidney and a pancreas may receive the kidney-alone offer because of kidney allocation prioritization of highly sensitized candidates. Even if the donor from which the kidney offer originates has a pancreas available, the pancreas would not be allocated to the KP candidate because the offer would be made through the kidney-alone list.

The Committee suggested a potential data request could possibly include how many times KP-listed, high CPRA candidates came up for kidney-alone offers because of lack of KP priority. In order to understand the transplant rates of KP and pancreas, and whether these patients are not receiving the same priority as pediatric and highly sensitized kidney patients, a data request would need to put the KP and pancreas data in the context of the kidney data. To that end, the Chair suggested in an email following the teleconference to include transplant counts and transplant rates of kidney pediatric and highly sensitized patients in order to allow comparison of the KP and pancreas transplant rates with the current kidney transplant rates. Waiting times would also be worthwhile to compare between kidney and KP/pancreas.

The Committee also discussed the issues identified with staff related to a potential overlap with a continuous distribution project. A Committee member felt that an additional project may be difficult to accomplish while working to finish the modifications to KP/pancreas allocation in removing DSA and region. Instead, the Committee could work on guidance that would not conflict with any changes due to geography. Other Committee members countered that the timeline for continuous distribution is unknown and may take years. Given the agreement of the Committee that addressing pediatric and highly sensitized prioritization in allocation is important, these members supported working on the project despite the "unknowns" related to the continuous distribution timeline.

Next steps:

Next steps for a pediatrics/highly sensitized project would include gathering evidence demonstrating the need to modify allocation. Finalizing a data request would need to not conflict with the efforts to put forward a policy proposal removing DSA and region from pancreas allocation in the fall, and so could possibly be finalized in an August full Committee call.

Upcoming Meetings

- June 19, 2019 (teleconference)
- June 25, 2019 (Baltimore, MD)

- July 10, 2019 (teleconference)