OPTN Liver and Intestinal Organ Transplantation Committee
Meeting Summary
April 15, 2024
Conference Call
Scott Biggins, MD, Chair
Shimul Shah, MD, MHCM, Vice Chair

Introduction

The OPTN Liver and Intestinal Organ Transplantation Committee (the Committee) met via WebEx teleconference on 04/15/2024 to discuss the following agenda items:

1. Public Comment Review: National Liver Review Board (NLRB) Updates Related to Transplant Oncology
2. New NLRB Project: Update NLRB Guidance + Further Alignment with Liver Imaging and Reporting Data System (LI-RADS)
3. SRTR Presentation: Acuity Metrics and Simulation
4. Medical Urgency Model Presentation: Optimized Prediction of Mortality (OPOM)
5. Medical Urgency Model Presentation: Dynamic MELD (dynaMELD)
6. Medical Urgency Model Presentation: Model for End-Stage Liver Disease (MELD)
7. Medical Urgency Model Debrief
8. Continuous Distribution: Progress to Date
9. Mathematical Optimization Dashboard Introduction

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

1. Public Comment Review: National Liver Review Board (NLRB) Updates Related to Transplant Oncology

The Committee reviewed and voted on the following items to submit their proposal, *NLRB Updates Related to Transplant Oncology,* to the OPTN Board of Directors for consideration.

- Policy 9.5.A: Requirements for Cholangiocarcinoma (CCA) Model for End-Stage Liver Disease (MELD) or Pediatric End-Stage Liver Disease (PELD) Exceptions
- Guidance to Liver Transplant Programs and the National Liver Review Board for Adult MELD Exceptions for Hepatocellular Carcinoma (HCC)
- Guidance to Liver Transplant Programs and the National Liver Review Board for Adult MELD Exceptions Review
- National Liver Review Board Operational Guidelines

Summary of discussion:

The Committee unanimously supported submitting this proposal to the OPTN Board of Directors for consideration.

The Vice Chair reviewed the following post-public comment decisions:

- No necessary post-public comment changes to the guidance for colorectal liver metastases because do not want to make guidance to prescriptive

- No necessary post-public comment changes to the colorectal liver metastases score recommendation because the current score recommendation is an appropriate compromise between those who are against the creation of the guidance and those was advocate for more points. The Committee notes this will be monitored and the score recommendation can be reassessed at a future date.
- Clarified guidance related to intrahepatic cholangiocarcinoma to provide more clarity
    - Separated two criteria within the intrahepatic cholangiocarcinoma guidance to become distinct criterion
    - Provided clarity around the criterion related to tumor stability for the intrahepatic cholangiocarcinoma guidance
- No necessary post-public comment changes to the score recommendation for intrahepatic cholangiocarcinoma because the majority of public comment was supportive of the proposed score recommendation
- No necessary post-public comment changes to the Adult Transplant Oncology Review Board because the care review will be monitored and modifications will be assessed if determined necessary
- No necessary post-public comment changes to Policy 9.5.A because public comment was supportive of the proposed modifications

Members voiced no issues or concerns with the proposed post-public comment decisions. The Committee unanimously voted in support of submitting this proposal to the OPTN Board of Directors for consideration.

Next steps:

The project will go to the OPTN Board of Directors in June 2024.

2. New NLRB Project: Update the NLRB Guidance + Further Alignment with LI-RADS

The Committee reviewed their new project which is twofold:

- Updating Adult MELD Exception Review guidance document
    - Updates include revising content/language based on new literature
    - Adding associated score recommendations
- Updating HCC policy and guidance
    - Adding contrast-enhanced ultrasound (CEUS) as an acceptable adjunct diagnostic tool for HCC
    - Aligning LI-RADS-5 terminology for imaging classification criteria

Summary of discussion:

The Committee voted and unanimously agreed to submit this project to the OPTN Policy Oversight and Executive Committees for consideration.

The Chair emphasized the importance of determining MELD scores for these diagnoses, as well as reviewing recent literature to inform these scores. They added that the inclusion of the LI-RADS aspect will be beneficial, especially for transplant coordinators, as the language would be easier for them to identify as LI-RADS 5, rather than listing all of the criteria. One member asked about the downstaging criteria and how that will be addressed. The Chair indicated that it would not be included in this project, however, there is a continuing effort to look at downstaging. They added that downstaging is a larger scope that is excluded from this project, but there is potential to address that in the future. Another

member added that LI-RADS and the American College of Radiology continuously evolve their language, thus OPTN policy will also likely evolve. The Chair noted that it is important for the Committee to maintain control over what is eligible for a MELD exception, but this project will allow the American College of Radiology to maintain control over the technical aspects of diagnosing, such as the lesion criteria.

Next steps:

The project will be considered by the OPTN Policy Oversight Committee for approval on May 8 and the OPTN Executive Committee on May 21. If approved, the Committee will submit a data request to help inform score recommendations, review literature to update language and content, develop policy language, and review system requirements to incorporate LI-RADS-related updates.

3. SRTR Presentation: Acuity Metrics and Simulation

An SRTR representative presented guidance on how simulations and empirical data can be used to evaluate and compare medical urgency models.

Summary of discussion:

The Chair stated that using empirical data rather than simulated data to inform comparisons and evaluations of medical urgency models may be better. A member expressed concern on how the Committee would decide which medical urgency model to proceed with and suggested that several various metrics should be considered during any comparison and evaluation.

Another member asked whether the empiric data that would be used for comparison and evaluations are impacted by current allocation policy. An SRTR representative stated that if the Committee seeks to evaluate and compare medical urgency models with empiric data, that the SRTR will work to ensure that that is accounted for in order to make as unbiased of a comparison as possible.

A member asked for more information on how to ensure that there is the ability to analyze the impact on subpopulations such as the pediatric population or candidates who are of small stature. An SRTR representative replied that the Committee would be able to help identify the key populations in order to develop an appropriate data set.

The Vice Chair asked for guidance on how to interpret the data presented by the various medical urgency model teams to make sure that it is applicable since they are based on different data sets. An SRTR representative stated that it is important to consider the covariates that the medical urgency model incorporates as well as the evaluation metrics used.

4. Medical Urgency Model Presentation: Optimized Prediction of Mortality (OPOM)

The Committee received a presentation from the authors of Optimized Prediction of Mortality (OPOM)[1,2] model.

Summary of presentation:

OPOM is a medical urgency model that uses machine learning techniques to rank adult liver transplant candidates based on their medical urgency for transplant. The authors of the OPOM model presented an

[1] D. Bertsimas, J. Kung, N. Trichakis, Y. Wang, R. Hirose, and P.A. Vagefi, Develop and validation of an Optimized Prediction of Mortality (OPOM) for candidates awaiting liver transplantation". American Journal of Transplantation, 19, 4, 1109-1118, 2019.

[2] D. Bertsimas, L. Everest, J. Gu, M. Peroni, V. Stoumpou, Deep Trees for (Un)structured Data: Tractability, Performance, and Interpretability:, 2024.

updated model, OPOM 2.0. At each node, OPOM uses only one variable, while OPOM 2.0 uses many variables. OPOM 2.0 smoothens the probability at each node relative to OPOM resulting in a more robust output. OPOM 2.0 addresses the robustness question previously asked by the Committee, while maintaining interpretability. OPOM 2.0 includes MELD 3.0 as a variable and excludes age (as requested by the Committee). OPOM 2.0 is compatible in performance compared to state-of-the-art neural networks. On HCC candidates, OPOM 2.0 performance is significantly stronger than MLED 3.0. On non-HCC candidates, OPOM 2.0 and MELD 3.0 are comparable. The edge remains across all medical severity and demographics.

Summary of discussion:

A member noted that if subjective variables, such as ascites, could be defined in a more objective way and incorporated into machine learning techniques then there might be more predictive power in these types of models. The Chair stated that Committee has discussed this previously and including ascites into allocation opens an opportunity for potential manipulation.

Another member asked how many terminal nodes are included in OPOM. The presenter estimated there to be a few hundred terminal nodes.

A member asked whether there is a numerical value that can be calculated in clinic while meeting with patients in order to educate patients on their clinical situation and potential time to transplant. The presenter responded that OPOM is translated to a 6 to 40 score range to be consistent with the current MELD score range.

A member noted that the OPOM tree for HCC performs better than the OPOM tree for non-HCC candidates. The member asked whether there is opportunity to use MELD 3.0 for non-HCC candidates and OPOM for HCC candidates. The presenter noted that more research would need to be performed to understand unintended consequences since OPOM is currently an integrated model. Another presenter noted that OPOM as an integrated model interdigitates the HCC candidates and the non-HCC candidates, so without the integrated model it would be difficult to interdigitate. The member noted that if these models are addressed separately then there would be opportunity to enhance the HCC stratification and model its performance over time without having to adjust the medical urgency model.

The Vice Chair asked how the area under the curve (AUC) correlates clinically since it is .02 difference compared to MELD. The presenter responded that the most impact will be seen within the HCC candidates. The presenter stated further simulation is needed for more information.

Another member stated that if waitlist mortality is used as the main driver, it could lower waitlist priority for HCC candidates which would then in turn decrease the proportion of HCC transplants. The member noted this population does need access to transplant.

A member stated that they like the idea of interdigitating HCC candidates. The member asked whether there is information on how many HCC candidates would receive benefit from OPOM compared to those who might lose some access compared to their current access. The presenter stated that further simulation would be needed to answer that question. Another member estimated that most HCC candidates would see a decrease because the estimated waitlist mortality is going to decrease but the risk stratification within that group could be improved. Another presenter noted that there are about 15 – 20% of HCC candidates who have a single well treated lesion that would receive less priority under OPOM than the current system.

A member asked how an HCC candidate is classified if they are removed from the list because they have gone beyond the transplantable HCC criteria. The presenter responded that those candidates were counted as a mortality.

The Chair stated that the first version of OPOM included size and number of lesion, but alpha fetoprotein (AFP) was the only cancer variable that seemed to provide weight in the model. The Chair asked whether the second version of OPOM changes this. A presenter responded that the number of tumors and sizes of lesions are in the nodes of the model.

Another member asked whether there is benefit to keeping an HCC stratification model separate from the medical urgency model. A presenter responded that it may be a worthy experiment to analyze. Another presenter added that HCC candidates are affected by other variables besides the characteristics of their tumors. The presenter explained that the MELD score of an HCC candidate is a predictor of the outcomes of their tumor. The Chair stated that not all standard exceptions are related to medical urgency, and specific to HCC there is a component of patient access. A member agreed and explained that HCC candidates do not die/get removed from the waitlist at the same rates as non-HCC candidates but that there is a window for transplant before the tumor grows and spreads. The member stated that medical urgency does not fully represent their need for waiting list priority.

The Vice Chair asked for more information on the performance of the model for prediction of survival after transplant. The Vice Chair stated that the endpoint used was waitlist drop out but that does not predict if the transplant was lives saved or futility.

A member asked for more information on the data set, specifically what it means that the data set excludes patients who were transplanted within 90 days. The member noted that half of candidates are transplanted within 90 days. A presenter noted that they examined the performance of OPOM both with and without censoring these observations and obtained similar out-of-sample performance results in both cases, suggesting that bias is not an issue. The member also suggested the Committee consider whether listing years should be incorporated as a variable.

An SRTR representative asked whether the "smoothing" feature of OPOM 2.0 only occurs if the value of a particular variable falls exactly on the decision boundary between two branches of the tree. The presenter clarified that the smoothing feature is weighted depending on how far away the candidate's value is from the decision boundary.

Another member asked how to quantify the benefit of OPOM to the general population. A presenter responded that simulation results can be used to ensure the community the benefit of these methods and models. The Chair noted it is important to consider but is in the scope of the Committee should they choose a new medical urgency model.

5. Medical Urgency Model Presentation: Dynamic MELD (dynaMELD)

The Committee received a presentation from the authors of the Dynamic MELD (dynaMELD) model.

Summary of presentation:

dynaMELD is a deep learning model for predicting waitlist mortality. dynaMELD strikes a balance between improving the standard of care while remaining with trusted frameworks. dynaMELD has flexibility of model nonlinearities in risk, can mitigate sex- and diagnosis-based disparities, and has individualized model interpretations. dynaMELD uses proportional hazards regressions and utilizes objective, laboratory-derived covariates.

Summary of discussion:

The Chair asked if the Shapley Additive Explanations (SHAP) values would help explain OPOM. The presenter stated that the SHAP interpretation is a unified method of explaining model prediction and in principle could be run on any type of model. The Chair stated that the SHAP interpretation could be very valuable in explaining these models to the broader community.

A member asked for more information on how rate of change is incorporated into the model. The presenter stated that rate of change was calculated by looking at a candidate's current value of their biomarkers and subtracting their previous value from the previous updates divided by the amount of time that elapsed between them. The presenter stated that in cases where a candidate's values are updated more regularly, the denominator will be smaller in that expression. The presenter added that the denominator is capped at 60 days in order to make sure updates are not being made based on old values. Another presenter noted that the team did find that velocity of time varying variables was important for some subgroups of candidates.

Another member asked if in patient and out patient cohorts were analyzed separately to understand model predictiveness. A presenter responded that that was not part of the analysis but could look into it in the future. Another member asked for more information on whether dynaMELD keeps priority for a candidate who came in acutely ill and treated with improving lab values.

A member asked whether the rate of change incorporates increases and decreases in lab values. The member specifically requested more information on how dynaMELD addresses candidates whose lab values improve over time. The presenter responded that the rate of change takes into account both increases and decreases in lab values. The Chair emphasized the potential bias in the data set given that current practice in the United States is to only use lab values when the updates are required by policy. A presenter stated that this is a data limitation based on how frequently data are collected for sicker patients, but that this limitation affects all models, not just dynaMELD. The presenter also stated that such rules could be implemented into the model.

Another member noticed that the c-statistics for MELD-Na and MELD 3.0 are lower than what have been seen in other cohorts, including in the OPOM presentation. The member asked whether this was a different cohort. A presenter responded that the c-statistic was computed differently than how it was computed for MELD-Na and MELD 3.0. The presenter stated that their model looked at the c-statistic for every patient instance rather than once per patient in the dataset. The presenter stated that this does result in a decrease in the c-statistic. The presenter stated that the team has computed the c-statistic from time of patient listing to time of death or drop out and that aligns with the c-statistic associated with both MELD Na and MELD 3.0. A member noted that the differences in the c-statistics may highlight potential bias in using later time points in the data.

The Chair asked whether dynaMELD could incorporate interdigitating HCC candidates into the model. A presenter responded that dynaMELD could incorporate variables to characterize HCC candidates and additional predictive variables. The presenter explained that pooled group concordance could be used to analyze the relative rankings of HCC candidates against the aggregate remainder of the candidate population. The presenter noted that while the model does not currently address this, they believe the model is readily available to accommodate requests such as this. The Vice Chair asked how other standard exceptions could be addressed in dynaMELD. A presenter noted that a neural network model would likely be able to address standard exceptions. Another presenter noted that the more complex a model becomes to accommodate edge case scenarios, there will become an applicability and accuracy tradeoff that must be considered.

The Vice Chair asked for more information to understand whether dynaMELD would produce consistent results across the nation. A presenter noted that when they analyzed concordance by OPTN region, dynaMELD showed considerable improvements in concordance across all OPTN regions.

The Chair suggested that the dynaMELD model should also incorporate those candidates aged 12 years or older.

6. Medical Urgency Model Presentation: Model for End-Stage Liver Disease (MELD)

The Committee received a presentation from the authors of the MELD model.

Summary of presentation:

MELD is the medical urgency scoring system that is currently utilized in OPTN policy and liver allocation and has been for over 20 years. An author of the model overviewed the history and development of the MELD system and highlighted the impact of the recent implementation of MELD 3.0. MELD is based on peer-reviewed and extensively cited publications. MELD has a track record of successful worldwide implementation and has demonstrated advancing equity in allocation. It is an established clinical tool where clinicians have developed a "MELD intuition".

Summary of discussion:

The Chair asked whether there is any consideration to incorporate diagnosis and primary biliary cholangitis (PBC) into MELD. A presenter responded that it becomes more of a philosophical question rather than a data question to determine how to assign risk scores for situations such as candidates with alcohol associated disease and PBC.

The Chair asked how MELD 3.0 could be adapted to interdigitate HCC candidates. A presenter stated that MELD and the exception processes for liver allocation have evolved simultaneously so there has not been an opportunity to delve into that consideration for incorporating HCC into the MELD model. The presenter stated that weighing the importance of pre-transplant outcomes and post-transplant outcomes against each other is different for different liver candidate populations which would require a new framework. The Chair wondered whether interdigitating HCC candidates in the same model is beneficial or if it is asking too much of one model. The presenter noted that the field of HCC and its management is evolving rapidly.

Another member asked for more information on physiologic guardrails to ensure minimal manipulation. The presenter stated the ability to manipulate any model should be removed as much as possible, but it must be weighed against the fundamental principle to do no harm. The presenter explained that each variable needs to be addressed individually based on physiologic decisions.

A member asked for more information on how the model accounts for simultaneous liver-kidney (SLK) candidates. A presenter responded that the model includes SLK candidates but does not include other multiorgan transplantation candidates such as those registered for both heart-liver.

A presenter from another medical urgency model argued that the MELD model does not address HCC appropriately. The presenter for the MELD model stated that incorporating HCC candidates more accurately into a model is important but the details of ensuring accuracy are very nuanced. The presenter noted that the Committee has worked very hard over the last several years to try to equalize the system for all candidates.

7. Medical Urgency Model Debrief

The Committee debriefed on the presentations from the authors of the following medical urgency models: OPOM, dynaMELD, and MELD/PELD. It is important to note that the purpose of these presentations was not to change the current medical urgency system, however, it was to think about a way these models fit into a Continuous Distribution framework, along with the other attributes that the Committee will determine.

Summary of discussion:

The Vice Chair shared their initial reaction was that the MELD 3.0 model is resilient, and that the data is really good. The Vice Chair stated they are unsure how much the other models would add to make the system significantly better compared to how MELD is currently performing. The Vice Chair wondered whether neural networks could be used in the future but is not sure that the system needs to be overhauled at this point.

A member stated that MELD 3.0 will be the basis for allocation until continuous distribution of livers is implemented which is likely several years away. The member stated it is important to learn how to interdigitate HCC candidates as well as other malignancies as the field of transplant oncology grows. The member stated that it would be a great improvement to not have all HCC candidates with exception scores of median MELD at transplant (MMaT) minus three. The Chair suggested the Committee could explore the opportunity to create a separate continuous model for HCC candidates that does not also have to predict end-stage liver disease.

Another member stated they agree that MELD is standing the test of time. The member noted that while OPOM interdigitates HCC, there are several other exceptions that would not be addressed through any of the models. The member noted that interdigitating HCC into a medical urgency score complicates the system. The member agreed that a neural network may be a path forward in the future. The member stated it would be beneficial for medical urgency models to prove their benefit with prospective data because the indications for liver transplantation are changing and the results of model performance need to be reflective of the current era.

A member stated it is really important to consider unintended consequences and to ensure that the decisions the Committee makes are clinically relevant. The member stated that the more complex the neural network becomes, the more difficult it is to understand potential confounding variables that may be affecting the data output. The member wondered if SRTR could analyze whether interdigitating HCC candidates in one medical urgency model compared to a separate continuous HCC model has any differences.

The Chair reminded the Committee that the continuous distribution framework offers the opportunity to address allocation across a set of goals rather than attempting to have the medical urgency score address every situation. A member noted support for a separate HCC model as it would make modifications to it in the future easier without having to modify an entire medical urgency model.

Another member noted that MELD continues to perform well and is a robust model. The member was interested in further understanding the clinical significance of difference in the c-statistic between MELD and OPOM for non-HCC candidates. The member stated that it appears to be a relatively small impact and may not be a beneficial change to make at the same time as changing to a continuous distribution system.

A member reminded the Committee that they had previously considered an HCC stratification attribute for the continuous distribution system. The member noted there are several models that aim to risk stratify this population, but it is a very nuanced decision. The Vice Chair stated it seems difficult to consider how to define high risk for HCC in terms of prioritization. The member agreed that it is complicated.

Another member requested a document that provides an overview of the three medical urgency models and compares pros and cons of each. Other members agreed with this suggestion. A member suggested more information on the variables of each model that have the most impact on the score in order for

patients to understand what the biggest influencers are while they wait at home or in the hospital. The Chair stated the SHAP interpretation would be beneficial to apply on all models.

A member also noted the MELD model appears to hold up well. The member stated there appears to be a statistical advantage to dynaMELD but there needs to be stop gaps to ensure that there is no false elevation in score based on what is weighted and evaluated. The member added that all of the medical urgency models are complicated, and it will take work to ensure the community understands whichever model is chosen in order to have transparency.

A member stated they believe MELD 3.0 is doing a good job. The member stated they thought the interdigitation of HCC candidates in the OPOM model was interesting and would be a nice addition to review in the future. The member stated the transparency of the model from the patient perspective is very important to consider when the Committee makes a decision.

Another member stated that none of the models appear to have great ability to apply predictive value in acute on chronic liver failure (ACLF). The member wondered whether the Committee should ask the OPOM and dynaMELD teams to address ACLF predictiveness in their respective models which may lead to a greater incremental value of those models compared to MELD.

A member stated that it is difficult when a candidate's MELD score is low and they are suffering from symptoms like ascites and encephalopathy. The member urged the Committee to consider how to prioritize those candidates on the waitlist. The member stated that MELD is a great system but does not always perform equally between disease based on the etiology of different diseases. The Chair cautioned against determining medical urgency scores for different populations as the various etiologies are very nuanced. The Chair also expressed concern introducing variables into a medical urgency score that could potentially affect the care provided for a candidate due to opportunities to manipulate the score.

Another member expressed gratitude to the Committee for their intellect, participation, and passion to better understand and innovate on the best ways to honor deceased donors' gift and to best help patients.

A member stated there is literature that observes that PBC and some autoimmune diseases have high waitlist mortality. The member stated this could be due to candidates with NASH and alcohol-associated disease who have more inherent kidney disease that have creatinine levels that are more particular on diuretics. The member explained that looking at older data, the number of candidates with particular diseases and the clinical characteristics of those diseases (such as PBC) may have changed over time, which may explain the different results seen by diagnoses.

Another member stated that OPOM was partly built on MELD so it does not seem that OPOM and MELD are mutually exclusive. The member supported the concept of modularity that OPOM provides. The member stated that OPOM interdigitating HCC candidates is one example of how machine learning can be utilized to guide an optimization. The member noted that there is a tremendous increase in differentiation potential in OPOM on account of the number of terminal nodes compared to MELD.

Next steps:

The Committee will continue their discussions at their next meeting on April 19th to determine which models may warrant further evaluation or determine if more information is needed. If further evaluation on any model(s) is sought, a subsequent data request will be submitted to SRTR for this further evaluation based on their recommendations.

8. Continuous Distribution: Progress to Date

The Committee reviewed the decisions made regarding Continuous Distribution and reflected on their progress to date. So far, the Committee has achieved the following:

- Determined attributes by answering the following questions:
    - What factors should be included in the framework?
    - What exists in current policy?
    - Are there factors not currently in policy that could be incorporated?
- Defined attributes by answering the following questions:
    - What is the purpose of each attribute?
    - What outcome measure can be used to determine success for each attribute?
    - How should points be assigned to candidates for each attribute (currently at this phase of the project plan)?

They also reviewed the project plan and highlighted the next steps including:

- Mathematical optimization
    - Continue to iterate on the development of rating scales.
    - Deliberate over tradeoffs between attributes that may conflict with one another.
    - Determine weights of attributes.
    - Use mathematical optimization to find policy scenarios that meet the Committee's preferred outcome metrics for the new allocation system.
- Organ Allocation Simulator (OASim) Modeling
    - Use Organ Allocation Simulator Modeling to confirm expected outcomes of final policy scenarios.
- Final Proposal
    - Determine the final policy scenario for public comment and OPTN Board of Directors' consideration.

Summary of discussion:

The Chair thanked the Committee for the effort they have put into Continuous Distribution, recognizing that this is not a quick or easy process.

There were no questions or comments.

Next steps:

The Committee will continue to follow the project plan to make decisions that will advance the progress of the Continuous Distribution framework as it relates to liver transplantation.

9. Mathematical Optimization Dashboard Introduction

The Committee received an introduction to the mathematical optimization dashboard. The presenter gave an overview of the dashboard including attributes, rating scales, and how they interact to create potential policies. They did disclose that although this tool is helpful when considering tradeoffs, it is intended to be used as an aid when considering attributes and their weights and not to be entirely relied upon. The purpose of the dashboard is to help the Committee compare policies between each other if certain attributes and their weights are changed.

Summary of discussion:

The Chair emphasized that this dashboard intends to narrow down policies, so there are about 2-3 scenarios, and then the SRTR will run an OASim on each policy. They continued, noting that this

dashboard is helpful tool to create “what-if” scenarios that can help the Committee better anticipate policies based on the attributes and their weights. A member recommended that the dashboard should be on the OPTN website to help endorse continuous distribution and demonstrate that most policy solutions are better than the current framework.

Next steps:

The Committee will continue to receive updates about the Optimization Dashboard as they become available, including the addition of some features.

Upcoming Meetings

- April 19, 2024 @ 2pm ET (teleconference)

Attendance

- **Committee Members**
  - Scott Biggins
  - Shimul Shah
  - Aaron Ahearn
  - Allison Kwong
  - Cal Matsumoto
  - Christine Radolovic
  - Colleen Reed
  - Erin Maynard
  - James Pomposelli
  - Jennifer Muriett
  - Joseph DiNorcia
  - Kathy Campbell
  - Kym Watt
  - Lloyd Brown
  - Neil Shah
  - Shunji Nagai
  - Omer Junaidi
  - Sophoclis Alexopoulos
  - Tovah Dorsey-Pollard
  - Vanessa Cowan
  - Vanessa Pucciarelli
- **HRSA Representatives**
  - Jim Bowman
  - Marilyn Levi
- **SRTR Staff**
  - Grace Lyden
  - Jack Lake
  - Katie Audette
  - Nick Wood
  - Ryo Hirose
  - Simon Horslen
  - Tim Weaver
- **UNOS Staff**
  - Alex Carmack
  - Betsy Gans
  - Cole Fox
  - Erin Schnellinger
  - James Alcorn
  - Joel Newman
  - Katrina Gauntt
  - Kayla Balfour
  - Laura Schmitt
  - Meghan McDermott
  - Niyati Upadhyay
  - Susan Tlusty

- **Other**
  - Dimitris Bertsimas
  - Jen Lau
  - Mamatha Bhat
  - Maura Hegarty
  - Michael Cooper
  - Nikos Trichakis
  - Rahul Krishnan
  - Parsia Vagefi
  - Ted Papalexopoulos
  - W. Ray Kim