

**OPTN/UNOS Vascularized Composite Allograft (VCA) Transplantation Committee
Meeting Minutes
April 6, 2018
Conference Call**

**L. Scott Levin, M.D., FACS, Chair
Linda C. Cendales, M.D., Vice Chair**

Introduction

The VCA Committee met via in Chicago, IL on April 6, 2018 to discuss the following agenda items:

1. Policy Oversight Committee Update
2. Latest VCA Data
3. Project Discussion: VCA Transplant Outcomes
4. Public Comment Discussion & Vote
5. AST/ASTS Debrief
6. Uterus Transplantation
7. Scientific Discussion
8. Committee Member Recognition

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

1. Policy Oversight Committee Update

The Vice Chair shared an update on recent POC discussions.

Summary of discussion:

The Vice Chair continues to serve with the OPTN/UNOS Policy Oversight Committee (POC). The purpose of this role is to examine proposals from other committees, as well as represent the Committee during project discussions.

The POC has reviewed a total of seven new committee projects since October 2017. Projects that were in alignment with Goal Two of the OPTN Strategic Plan and a multi-organ allocation project were reviewed and prioritized. The POC also reviewed and approved 12 committee proposals for public comment solicitation. This public comment period will run from January 23, 2018 to March 23, 2018. Worth noting, the Committee had two proposals in this batch, and the proposals will be discussed later in the meeting.

The Vice Chair noted that the portfolio of active committee projects will reviewed during the POC meeting in May 2018. The purpose of this review is to assess if appropriate progress is being made and if the projects continue to be the most appropriate use of resources. The Committee does not have any projects included in this review.

UNOS staff then reviewed the current resource allocation for all five of the OPTN Strategic Goals, highlighting the two active Committee projects...

Next steps:

The Vice Chair will continue to represent the Committee on the POC through June 2018. The leadership transition in July 2018 will result in a new vice chair/representative to POC. This individual will be announced at the conclusion of the meeting.

2. Latest VCA Data

UNOS Research staff profiled the latest data representing VCA candidate registrations, waitlist size, transplant activity, waitlist removals, and data collection efforts.

Summary of discussion:

UNOS Research staff shared a detailed profile of VCA activity in the U.S.

- One VCA transplant so far in 2018.
- Seven new registrations on VCA waiting list in first 3 months of 2018 vs 10 for all of 2017.
- More upper limb and face registrations in first 3 months of 2018 than all of 2017.
- Waiting list numbers stable over past year

UNOS staff then reported significant improvements in efforts to collect VCA recipient data for all VCA transplants since 1998. Staff reminded the Committee that data reporting to the OPTN was required after September 2015 (when the policy was implemented). Data reporting to the OPTN prior to this date are optional to the respective VCA programs, but all programs are fully cooperative to share these data given their critical value to the field.

The Chair thanked UNOS staff for the compelling data update and opened the floor for questions. Members discussed ways to facilitate data reporting on the pre-OPTN VCA recipients. Several members commented that they were personally following, or knew the provider following, the early VCA recipients. They committed to helping get the outcome data to the OPTN. Members also discussed the lack of clarity between a “failed” VCA transplant and a “poor outcome”. Distinguishing between these will be within the scope of the *VCA Transplant Outcomes* project under development.

Members then discussed the applicability of functional tests over the duration of the post-transplant period. Some members shared that initial functional tests are expected to be poor with improvements usually seen months after transplant. Other members indicated that some functional tests may not be relevant beyond the initial 2-3 years following transplant. One member verbalized that these functional tests are scientifically validated for adult patients, but not validated in pediatric patients. Members agreed future discussions on VCA outcomes would very valuable.

One member asked for clarification around submission of living VCA donor information to the OPTN. UNOS staff responded there is currently a policy exemption regarding living VCA donors, thus VCA programs are not required to report living donor data. However, the one program that has performed living VCA recoveries (uterus) has diligently followed the guidance developed by the Committee in 2015. This guidance included a request for voluntary data submission to the OPTN that paralleled the data set and follow-up frequency for living kidney donors.

The Chair then asked the Committee, how can the OPTN data be leveraged and shared with the medical community? Members were encouraged to see the increase in VCA candidate registrations in recent months. Further, they supported the concept of sharing the data with the entire transplant community. Members invited UNOS staff to attend the November 2018 American Society for Reconstructive Transplantation (ASRT) meeting and present the available data. Members shared that two plenary sessions and four posters on VCA transplantation were accepted at the 2018 American Transplant Congress (ATC) in Seattle, WA. One member verbalized the OPO community also needs access to VCA data. The Association of Organ Procurement Organizations (AOPO) meetings would be ideal venues for these reports.

Members expressed deep gratitude to UNOS staff for their diligent efforts to collect and report VCA outcomes to the Committee. They looked forward to future opportunities to engage in a "deep dives" into the data. One of the items of interest for future data updates is a report on funding sources reported to the OPTN on transplant recipient registration (TRR) forms.

Next steps:

UNOS Research will continue to present data updates at in-person meetings.

3. Project Discussion – VCA Transplant Outcomes

The Data Subcommittee Chair and UNOS staff profiled the recent efforts of the Data Subcommittee to develop a project that helps get better understanding of VCA transplant outcomes.

Summary of discussion:

UNOS staff reported that there appeared to be close alignment with the Committee's efforts to gather more detailed data on VCA transplant outcomes, and domestic and international initiatives to define success in VCA transplantation. The Subcommittee's discussions to-date have:

- Identified a high level understanding where gaps in data reporting exist
- Demonstrated understanding re: challenges posed by diverse functional goals across VCAs, and even across candidates within the same type of VCA (e.g.: treatments goals of below elbow vs above elbow transplantation)
- Acknowledged that VCA transplant outcomes may not be seen for several months post-transplant
- Indicated that some functional assessments reported to the OPTN may not be pertinent over time

In order to recommend a new project to the POC, the Subcommittee needs to diligently identify a problem statement describing the issue(s), and share potential solutions to address the problem(s). The Subcommittee has asked for feedback on the direction and scope of the project, and whether Committee members feel there is good alignment with the efforts of the ASRT and ISVCA.

The Chair thanked the Subcommittee Chair for the update and opened the floor for discussion. Members brought up the diversity of outcomes pertinent to VCA transplantation and the need to consider not just recipient and graft survival, but also psychosocial wellness and recipient satisfaction assessments. In the realm of psychosocial wellness, members were aware of one prior suicide in a VCA recipient. They were confident that VCA programs were conducting risk assessments for depression or suicide during pre-transplant evaluations and post-transplant follow-up. They advocated the Subcommittee discuss if it was important for the OPTN to collect any of this information for outcomes or safety metrics, or policy decision making.

Members then discussed the functional data that is not collected by the OPTN. Recipient reported outcome data is not captured for any VCA type and this has become an area of interest lately. Members acknowledged the low case volumes and the lack of scientifically validated instruments. The way to compensate for this is to have a very high participation rate involving transplant recipients.

The Chair then commented that a speaker at the last ASRT conference recommended the VCA community needed to mutually agree on outcome measures to advance. Members were optimistic that consensus could be achieved on these outcome measures. Some thought should

be given in the VCA community whether the current assessment tools are effectively constraining the field from describing the depth of outcomes for VCA transplantation.

Next steps:

Additional conference calls will be held to distill the problem statement and potential solution(s). Ongoing updates will be provided to the Committee. A tentative goal for a vote on POC consideration is June 2018.

4. Public Comment Discussion & Vote

The Committee sought public comment on two proposals from January to March 2018. The Committee discussed these comments and whether to recommend consideration by the Board in June 2018.

Summary of discussion:

UNOS staff updated the Committee on two proposals that sought public comment in the previous months. This included *Guidance on Optimizing VCA Recovery from Deceased Donors* and *Align VCA Membership Requirements with Other Solid Organ Programs*.

Guidance on Optimizing VCA Recovery from Deceased Donors



Support– 5

Support w/ recommendation – 0

Oppose – 0

Indeterminate (support or opposition not explicitly stated) – 0

Total: 5

Feedback on the proposal was supportive across all responses. The Association of Organ Procurement Organizations noted that the guidance shared effective practices for VCA recovery. UNOS staff then shared that a handful of changes for clarity and style were made, though these changes were not substantive.

The Chair thanked UNOS staff for the debriefing and opened the floor for questions. Committee members felt it was important to highlight the need to protect the anonymity of the VCA donor and their family in the Media Considerations section. Members also clarified a recommended waiting period prior to public release of information regarding the VCA transplant.

At the conclusion of the discussion, a motion was made and seconded to approve the guidance as amended and recommend consideration by the OPTN/UNOS Board of Directors in June 2018 (Yes – 14, No – 0, Abstain – 0).

Align VCA Membership Requirements with Other Solid Organ Programs



Support– 3

Support w/ recommendation – 3

Oppose – 0

Indeterminate (support or opposition not explicitly stated) – 0

Total: 6

Themes in support of the proposal included:

- Support for alignment with membership requirements for solid organ transplant programs.
- Individuals applying for key personnel positions at VCA transplant programs should be examined in-total.
- The primary transplant surgeon of a solid organ program should be allowed to qualify as the primary transplant surgeon of a VCA program, if the individual meets the minimum training and experience requirements for the VCA primary transplant surgeon.

Other comments in support of the proposal with recommendations included:

- Caution to not create a burdensome regulatory environment that precedes the clinical practice and stifles innovation.
- The unusual circumstance for the primary transplant surgeon of a VCA program to NOT have board certification. The MPSC should monitor VCA programs with non-board certified primary transplant surgeons.

The Chair thanked UNOS staff for the debriefing and opened the floor for questions. Members verbalized agreement with the sentiment of not placing burdensome regulations on the developing field of VCA transplantation. They believed the membership requirements will strike the balance of reasonable training and experience requirements with the desire to be inclusive of the innovative leaders who established the field (domestically and internationally) and future leaders. With this in mind, the Committee felt a change to the proposal was not required.

The Committee agreed that the instances when a non-board certified individual would serve in a key personnel position would likely be an infrequent occurrence. One members shared an earlier sentiment that the membership requirements included experiential elements more reflective of an individual's capacity for program leadership. These include fellowship training, independent surgical experience in specified cases, ongoing continuing medical education consistent with maintaining board certification, and letters of reference from VCA program directors. Another member commented, if the proposal moves forward to not accept foreign board certification, the CME pathway requirements should not be reduced or modified in a manner that was inconsistent with key personnel requirements for solid organ programs. This will ensure the continuing education and qualification of key personnel. Members noted the CME hours and number of recommendation letters in the proposal were identical to the requirements for solid organ counterparts.

Members inquired about the feedback from the American Society of Transplant Surgeons (ASTS) to monitor VCA programs with non-board certified key personnel. UNOS staff responded that routine transplant outcome monitoring of VCA cases is not performed due to low program volume at this early stage of the field. This is consistent with other areas of transplantation with low case volume e.g.: intestine or pancreas islet transplantation (OPTN Bylaws, Appendix D.10A *Functional Inactivity*). With regard to monitoring compliance with the CME pathway for U.S. board ineligible surgeons, the MPSC will perform this validation on an as-requested basis, consistent with the monitoring plan in the MPSC foreign equivalent proposal.

The Committee then discussed whether the requirement of observing two multi-organ recoveries in the two years prior to the surgeon's application was appropriate. Members felt there was no value requiring an applicant for the VCA primary transplant surgeon to observe additional organ recovery cases near to the application submission when the surgeon has previously observed two organ recoveries. Further, this change would be consistent with the requirements to for the primary transplant physician of solid organ programs observe organ procurements. As a result, the Committee recommended striking the two-year time period and accepting observations performed during the surgeon's career.

At the conclusion of the discussion, a motion was made and seconded to approve the guidance as amended and recommend consideration by the OPTN/UNOS Board of Directors in June 2018 (Yes – 13, No – 1, Abstain – 0).

The Chair thanked members for their diligent work on both proposals. He encouraged the Committee to turn their collective focus to future projects that will be impactful to both the OPTN and VCA transplant community.

Next steps:

UNOS staff will prepare briefing papers on both proposals for the Board and share with leadership. The Vice Chair will be attending the Board meeting and will be prepared to present both proposals to the Board.

5. AST/ASTS Debrief

The Chair shared a short update on recent discussions with transplantation societies regarding payer issues in VCA transplantation.

Summary of discussion:

An update on the tripartite discussions between the American Society for Reconstructive Transplantation (ASRT), the American Society for Transplantation (AST), and the American Society for Transplant Surgeons (ASTS) was provided during the October 2017 meeting. The

Chair acknowledged the efforts to improve the payer landscape will require a long term effort. Since that time, the desire to collaborate on payer issues in VCA transplantation appears to be strongest between ASRT and AST.

Next steps:

The Chair will continue to keep the Committee informed of developments in this area.

6. Uterus Transplantation

A Committee member shared a presentation on recent developments, both domestically and internationally, in uterus transplantation.

Summary of discussion:

A Committee member who has been engaged in the clinical practice of uterus transplantation in the domestically and internationally shared an update that included:

- Profile of indications for uterus transplant
- Potential incidence of absolute uterine factor infertility in the U.S.
- Surgical risks to donors and candidates
- Potential risks to a fetus
- Advantages and disadvantages of living vs deceased donors
- The surgical approach to recovery and transplantation
- Outcomes

The Chair thanked the speaker for the thorough update and opened the floor for discussion. Members discussed a several items including:

- Donor criteria
- Potential candidate evaluation and selection process
- Consideration of expanded criteria deceased donors
- Immunogenicity of uterus
- Donor-potential recipient matching (ABO and HLA)
- Time considerations of living and deceased uterus recovery
- Recovery coordination in cases of deceased donation
- Organ preservation
- Delivery of the newborn

Next steps:

The Committee asked to stay informed of developments in uterus transplantation in order to develop future guidance and/or policies.

7. Scientific Discussion

The Chair of the OPTN/UNOS Ad-hoc Disease Transmission Advisory Committee (DTAC) was invited to share a presentation with the Committee on current deceased donor issues and whether the deceased donor pool for VCA transplantation can be expanded.

Summary of discussion:

In October 2017, members acknowledged challenges in identifying deceased VCA donors that did not have risk factors that made VCA programs uneasy to accept offers. With this in mind, the Committee invited the Chair of DTAC to share information from solid organ transplantation that could be translational to VCA transplantation. During this discussion, the speaker discussed:

- Acknowledgement that the risk for potential disease transmission will never be zero.
- The transplant community appears to be learning to live with some risk.
- Based on OPTN data, there appeared to be a general practice in VCA transplantation to not face cytomegalovirus (CMV) mismatch (deceased donor CMV +, recipient CMV -)
- No use of VCAs from donors with positive tests for human immunodeficiency virus (HIV), hepatitis C virus (HCV), or hepatitis B virus (HBV).
- The use of antibody and nucleic acid test (NAT) for HIV, HCV, and HBV, and the risk of disease transmission in the setting of positive/negative results based on OPTN data.
- Increase in deceased donors that meet U.S. PHS Increased Risk criteria.
- Increase in opioid related deaths.
- Decline in median age of deceased donors with viremia for HCV.
- Known instances of unintended disease transmissions involving organs from deceased donors (based on OPTN data).
- Substantial advancements in HCV and CMV treatment.
- Perhaps more important than PHS increased risk are risk of Chagas, West Nile Virus, Dengue, Zika, tuberculosis, Strongyloidiasis, or Coccidioides.

At the conclusion of the presentation, the Chair opened the floor for questions. Members shared their appreciation for the valuable presentation. Members discussed the setting of near-term risk factors (active drug use) and potential for disease transmission (1-3% risk that varies based on risk behavior), versus risk factors that are separated from donation by more than one month. Members commented that a significant component to the organ acceptance decision is how to carefully explain the risk of developing a disease to a patient.

Solid organ transplant colleagues on the Committee verbalized that PHS increased risk donors are routinely used in solid organ transplantation. They acknowledge the calculus is different for VCA transplantation given the non-life saving nature of the procedure. Another member asked if there were good surrogate markers, or co-infection, for missed positive viremias e.g.: positive CMV or Epstein-Barr Virus (EBV)? The speaker responded that this has not been examined.

Members discussed the implications of donor-derived disease transmission across different VCA types. There was consensus the clinical impact varied across VCA types, e.g.: CMV viremia in a pregnant uterus transplant recipient would be concerning. Members also shared that “risk” in the VCA dialog extends beyond disease transmission. Endothelial vascular dysfunction is a very real risk for VCA recipients and donors that meet criteria for PHS increased risk due to intravenous drug use may not be suitable. This risk analysis is different for adult and pediatric candidates.

The Chair thanked the speaker for traveling to Chicago to share the important information and his expert opinion. The Chair wants to continue the dialog between the respective committees in the future.

Next steps:

The Committee will continue to be engaged on discussions that can inform donor considerations

8. Committee Member Recognition

The Vice Chair recognized two outgoing members of the Committee.

- L. Scott Levin, M.D. – The Chair has shown great leadership and dedication in the position. Dr. Levin thanked members for their extremely hard work and dedication to advancing the field of VCA transplantation. He also thanked UNOS staff members who integral to the Committee’s success. Dr. Levin was presented with a plaque as a token

of appreciation. Dr. Levin will be remaining with the Committee as Immediate Past-chair for one year.

- Christopher Curran – Mr. Curran has been a great contributor to the Committee in his term. Mr. Curran will be concluding his at-large term early, assuming a leadership with the OPTN/UNOS Operations and Safety Committee in July 2018.

UNOS staff announced that Linda Cendales, M.D. would be transitioning from Vice Chair to Chair. Bohdan Pomahac was selected by the OPTN Vice President to serve as Vice Chair. Both individuals will serve two-year terms beginning in July 2018.

With no further business to discuss, the meeting was adjourned.

Upcoming Meetings

- May 9, 2018 4-5 PM (Eastern)
- June 13, 2018 4-5 PM (Eastern)