

## Clinical Process Instruction Manual

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### Offering and Allocation of Composite Tissue Upper Limb Process Instruction

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#### Policy:

Composite tissue is the transplantation of complex anatomic units composed of two or more distinct tissues from one individual to another e.g. hand and forearm, elements of face and underlying structure, or the trachea. Composite tissue can also be referred to as Vascular Composite Allotransplantation (VCA).

Upper limb transplantation may involve left, right or bilateral graft(s) and will be offered according to a priority algorithm as determined by the VCA Working Group. Patients will submit blood work for antibody (PRA) testing every 4 months at a minimum and will be assigned allocation points as per the *Ontario VCA – Upper Limb Transplantation Allocation Algorithm*. The ability to auto-calculate recipients' allocation points in TOTAL is not available as of yet. Until this is completed, potential recipients will be ranked according to wait time.

The transplant program will consider composite tissue offers from the Provincial Resource Centre (PRC) and may request organ specific testing to determine if the limb is appropriate for transplantation. In addition, the transplant program will consider factors including cold ischemic time, gender, age, graft size and skin pigmentation during donor evaluation.

#### Process:

1. Once the Organ and Tissue Donation Coordinator (OTDC) has consent for organs and identifies the patient as a potential VCA donor, the Clinical Services Coordinator (CSC) will review the list of potential recipients on the *VCA Wait List Registration* Excel sheet. If a suitable matched ABO/size patient is identified, and the donor does not meet any absolute exclusion criteria, the CSC will place an interest call to the transplant program designate on-call to assess interest. Note: In some situations, the OTDC may proceed with obtaining composite tissue consent in advance of an interest call.
  - 1.1 The following information should be included in the interest call:
    - 1.1.1 Donor chart including Medical Social History, ABO, and physical assessment (if available).
    - 1.1.2 Measurement of donor limb(s) from bony elbow tip to the bony prominence of the wrist (for potential limb donors)
    - 1.1.3 Skin tone as measured by Fitzpatrick scale.
  - 1.2 If the transplant program expresses interest, the CSC will initiate a Pre-Approach Huddle to set up an approach plan and highlight any potential challenges. This huddle will be attended by the Manager-on-call (MOC), the OTDC, the CSC and the CSC-TL.

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- 2 If consent for limb donation is obtained, the CSC will proceed with allocation and offer.
  - 2.1 The CSC will make a copy of the *VCA Wait List Registration* to be used as an allocation list and perform a manual allocation as per the *Ontario – VCA Upper Limb Transplantation Allocation Algorithm*.
  - 2.2 A pre-allocation check will be done by a 2<sup>nd</sup> CSC who will initial and verify the manual allocation. Because the ability for TOTAL to auto-calculate recipients' allocation points is not currently available, composite tissue recipients will be ranked by ABO and wait time.
  - 2.3 The CSC will perform a manual electronic virtual cross-match (VXM) in TOTAL. The CSC will read the VXM result to the transplant program during the offer.. A STAT cross-match may be requested by the transplant program prior to final acceptance
  - 2.4 In lieu of an allocation report, the CSC will write all organ offers, decisions and declines on the *VCA Wait List Registration*. In addition, the CSC must record all acceptances or declines in the chart notes of iTransplant.
- 3 The *Limb Physical Assessment Form* will be completed by the OTDC and uploaded to iTransplant as a part of the donor record. If a bilateral limb transplant is being considered, a separate *Limb Physical Assessment Form* should be completed for each limb. When the donor information relevant to organ offering is available, the CSC will make a formal offer to the transplant program. In conjunction with the OTDC, the PRC will make their best effort to fulfill any organ specific testing requested by the transplant program during the donor evaluation period.
- 4 The Composite Tissue cooler sheet will be manually entered by the CSC and sent to the SRC or designate to be included with the organ prior to the donor recovery.
- 5 After the transplant has been completed, the transplant program will contact the PRC to confirm the final outcome. If the patient was transplanted, the CSC must document the date of transplant and update the patient status to "Transplanted". If the intended patient was not transplanted, the CSC will change the patient status to "Active" and document the decline reason. The transplant program will also contact TGLN if the intended recipient does not receive their organ at any point during the process. These updates will be documented on the *VCA Wait List Registration* document saved on the Common (S:) Drive

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#### Appendix 1: TGLN VCA Just in Time Huddle Checklist

The CSC is responsible for arranging the 'Just in Time' VCA huddle and should include the CSC, the OTDC, the MOC, the SRC (if applicable) and the AOC (optional)

TGLN #: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 CSC: \_\_\_\_\_ MOC: \_\_\_\_\_ OTDC: \_\_\_\_\_

	<u>Completed</u>	<u>Requires Follow-Up</u>
• Discuss approach	<input type="checkbox"/>	<input type="checkbox"/>
• Family situation/special considerations	<input type="checkbox"/>	<input type="checkbox"/>
• Request VIP status on hospital donor chart	<input type="checkbox"/>	<input type="checkbox"/>
• Coroner involvement?	<input type="checkbox"/>	<input type="checkbox"/>
• Is transfer required (Family arrangements, etc)?	<input type="checkbox"/>	<input type="checkbox"/>
• Donor Management (moving arterial line, central line, choice of BP medication, etc)?	<input type="checkbox"/>	<input type="checkbox"/>
• Plan for 2 <sup>nd</sup> OTDC?	<input type="checkbox"/>	<input type="checkbox"/>
• Plan for OR education/support	<input type="checkbox"/>	<input type="checkbox"/>
• Planned OR date/time?	<input type="checkbox"/>	<input type="checkbox"/>
• SRC considerations?	<input type="checkbox"/>	<input type="checkbox"/>
• Other OR considerations? (i.e. book largest room)	<input type="checkbox"/>	<input type="checkbox"/>
• OTDC to review pick list with OR for any missing items	<input type="checkbox"/>	<input type="checkbox"/>
• CSC to notify other accepting/recovery programs of VCA acceptance	<input type="checkbox"/>	<input type="checkbox"/>
• Prosthesis required? Notify transplant program.	<input type="checkbox"/>	<input type="checkbox"/>
• Other considerations?	<input type="checkbox"/>	<input type="checkbox"/>

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#### Appendix 2: VCA OR Pick List: Instrument list for bilateral hand procurement for transplantation.

If any of the below items are not available at the donor OR, Transplant Donation Specialist (TDS) will be notified and will bring the item(s).

- OR ice machine – if not available, TDS will be notified to bring ice

#### **Requirements per limb:**

- Amputation tray
- Skin marker
- Bipolar electrocautery and tips
- Extremity drapes
- Towel clips
- Sterile Tourniquets (pneumatic cuffs)
- Bone wax
- General surgical pack
- Bone set
- Sterile ruler
- Skin stapler (2)
- 2.0 vicryl suture kits (1)
- Webril rolls (1)
- Sterile Esmark or Tensor wrap
- Medium “ligaclip” Appliers and clips
- Large “ligaclip” Appliers and clips
- 8 – 0 suture
- Kling gauze wrap rolls (2)
- Normal Saline Solution bags
- Sterile basin for back table flush
- Back table (1)

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#### Records:

Record Name	Form No. (if applicable)	Record Holder	Record Location	Record Retention Time (as a minimum)
Composite Tissue Transplant Operating Room Data	CSF-9-75	PRC	PRC	16 years

#### References:

- *Ontario VCA - Upper Limb Transplantation Allocation Algorithm*