

Clinical Process Instruction Manual

Tissue Recovery Sequencing and Zoning Process Instruction

Policy:

Certain tissue recovery practices may be helpful in controlling contamination and cross-contamination of individual tissues. These include recovery techniques such as well-defined zone recovery techniques; sequencing of the tissue recovery (the order of tissues recovered within a zone); and isolation draping in the presence of trauma.

Multi Tissue Recovery Coordinators (MTRC) are required to practice and document zoning and sequencing as a routine part of tissue recovery.

From time to time it is acceptable for an unanticipated zone to be created as a result of trauma or other factors. Any deviation from established sequencing or zoning guidelines shall be documented in the donor record.

As part of these measures, guidelines have been developed with respect to sequencing and zoning of tissue recovery.

Process:

1. To describe the general guidelines for the recovery of tissue donors, including the methods of zoning and sequencing of tissue recovery.
2. In order to minimize contamination of tissues during the recovery, the donor's body is divided into five procurement zones. The order of recovery should follow the numbering of the zones and the sequence of tissue listed under each zone. See Appendix 1.
3. Traumatized areas must be isolated first by draping them to contain potential contamination and to prevent cross-contamination. If tissues from these areas are to be procured, they should be sequenced as the last for recovery.
4. Every recovery technician shall change gowns and gloves between each zone.
5. Instruments shall be divided accordingly to each procurement zone.
6. No one instrument shall be used in more than one zone.
7. Subzones should be recovered last to prevent cross contamination.



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8. Different blades shall be used for skin incisions versus those used for exposure of deeper tissues and removal of tissues (i.e., blades shall be changed after the skin incision has been made).
9. Workspaces must allow separation of sterile instruments and support aseptic recovery, recovery sequencing, labeling and packaging without mix-ups.
10. Recovery staff shall change gloves between handling of each tissue and skin incision.
11. Each zone of recovered musculoskeletal tissue is cultured and wrapped individually.
12. Skin tissue (if applicable) is cultured and placed into appropriate containers.
13. Once recovered from the donor, all tissue shall be placed on wet ice for transport.
14. Zoning and sequencing are documented in the donor chart. Deviations from this procedure are to be documented in the donor chart.

Records:

Record Name	Form No. (if applicable)	Record Holder	Record Location	Record Retention Time (as a minimum)
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Donor Chart	-----	PRC	PRC	16 Years
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References:

- Standards for Tissue Banking, American Association of Tissue Banks, United States, 14th edition, 2017. D5.530.
- Prevention of Contamination and Cross-Contamination at Recovery: Practices & Culture Results, No. 2, version 2, May 29, 2007.

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Appendix 1: Zoning and Sequencing of Tissue Recovery

Zone #1 – Skin

- 1.1. Skin – Posterior Trunk
- 1.2. Skin – Posterior Leg
- 1.3. Skin – Anterior Abdomen
- 1.4. Skin Anterior Leg

Zone #2 – Cardiac and Thoracic

- 2.1. Heart for Valves
- 2.2. Pericardium

Zone #3a Musculoskeletal Donors – MSAT

- 3a.1. Humerus
- 3a.2. Radius
- 3a.3. Ulna
- 3a.4. Fascia lata
- 3a.5. Gracilis tendon
- 3a.6. Semi-tendinosus tendon
- 3a.7. Anterior tibialis tendon
- 3a.8. Posterior tibialis tendon
- 3a.9. Peroneus longus
- 3a.10. Peroneus brevis
- 3a.11. Tibia with patellar tendon and meniscus
- 3a.12. Fibula
- 3a.13. Achilles tendon with calcaneus and talus
- 3a.14. Femur
- 3a.15. Hemi-pelvis

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Zone #3b En bloc fresh graft – MSAT

- 3b.1. En bloc shoulder
- 3b.2. En bloc elbow
- 3b.3. Fascia lata
- 3b.4. Anterior tibialis tendon
- 3b.5. Posterior tibialis tendon
- 3b.6. Peroneus longus
- 3b.7. En bloc knee
- 3b.8. En bloc ankle (with Achilles)
- 3b.9. Proximal femur
- 3b.10. Hemi-pelvis

Zone #3c Musculoskeletal – RegenMed

- 3c.1. Humerus
- 3c.2. Fascia Lata
- 3c.3. Gracilis Tendon
- 3c.4. Semitendinosus Tendon
- 3c.5. Tibialis Anterior Tendon
- 3c.6. Tibialis Posterior Tendon
- 3c.7. Peroneus Longus Tendon
- 3c.8. Whole Tibia (with Menisci, Patellar Tendon, Patella, and Quadriceps Tendon)
- 3c.9. Whole Fibula
- 3c.10. Achilles Tendon (with Talus and Os Calcaneous)
- 3c.11. Whole Femur
- 3c.12. Hemi-Pelvis