


STANDARD OPERATING PROCEDURE (SOP)		
Department: Regenerative Medicine Research Center		
SOP No: 02	Ver: 01	
SOP Title: Disposal of biohazards and human tissue waste		


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1. PURPOSE

The purpose of this SOP is to set out the procedures for disposal of human tissue waste.

2. INTRODUCTION

After the process of dissection and preparation of human tissue, there will always be some biological waste left such as human tissue waste. In order to maintain biosafety, sterility and microbial control of the clean room environment in the tissue processing center, it is necessary to follow a standard process for disposing of this type of wastes.

3. SCOPE

3-1- The disposal of all biohazards and human tissue waste (including sharp and non-sharp biological wastes) within tissue processing center.

4. DEFINITIONS

4-1- Human tissue: Any, and all, constituent part/s of the human body formed by cells.

4-2- Biohazards: these refer to biological substances that pose a threat to the health of living organisms, primarily that of humans. This can include medical waste or samples of a microorganism, viruses, or toxins (from a biological source) that can affect human health.

4-3- Sharp waste: biological Sharps waste is a form of biomedical waste composed of used "sharps", which includes any device or object used to puncturing or cutting. Sharps waste is classified as biohazardous waste and must be carefully handled

4-4-Non-sharp waste: biological non-Sharps waste includes any non-sharp item that is contaminated with human or animal diagnostic specimen material (body fluids, tissue debris), any microbiological culture material (including recombinant DNA).


4-5- Processing center: cleanroom area in which biological tissues are processed and prepared for medical applications.

5. RESPONSIBILITIES

5-1- Supervisor: Supervise the full implementation of the SOP

5-2- Clean room Staffs: Execute the standard steps listed in the SOP

5-3- Quality control officer: Checking the steps of human tissue waste disposal and their compliance with the SOP and recording the relevant data for validation.

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6. SPECIFIC PROCEDURE

6-1- Disposal of human tissue waste:

6-1-1- Once human tissue has been identified for disposal, it should be transferred to a designated storage area prior to disposal. (It can be a freezer)

6-1-2- All relevant material (human tissue) should be placed in a yellow Biohazard bag.

6-1-3- The bag should be sealed with zip ties or tied in a knot and placed in the freezer.

6-1-3-1- This freezer is used for the disposal of human tissue and all samples stored will be incinerated.

6-1-4- The biohazard bag should be labelled with following information and all information should be recorded:

- Type of human tissue waste for disposal
- Project reference number
- Sample reference number(s)
- Custodian
- Contact details of custodian

6-1-5- Appropriate technical staff will remove samples from the freezer to the large clinical incineration bin, which is kept locked at all times.


6-1-6- If the donors own material is being returned at their request then a material transfer form should be filled out.

6-2- Other biological wastes:

6-2-1- Solid biohazardous waste: use heavy duty plastic "BIOHAZARD bags" (autoclave bags) or containers for solid biohazardous waste, including contaminated disposable plastic lab-ware, paper, bedding, etc [NOT SHARPS]. The following disposal methods are acceptable:

- Preferred Method: incineration followed by deposition of the residual ash in the Landfill.
- Thermal or chemical disinfection followed by deposition in the Landfill

6-2-2- Metal sharps: place in a rigid, puncture resistant container (heavy walled plastic is recommended). The container should be used for encapsulation and disposal. Label the container "ENCAPSULATED SHARPS". Container and encapsulated contents must withstand an applied pressure of 40 psi without rupture. Never attempt to retrieve items from a sharps container. Do not place sharps in plastic bags or other thin-walled containers. Discarded sharps (contaminated or not) that may cause puncture or cuts, must be contained, encapsulated and disposed of in a manner that prevents injury to staffs, custodial and Landfill workers. Needles, blades, etc., are considered BIOHAZARDOUS even if they are sterile, capped and in the original container. This type of waste should be autoclaved before the final disposal.

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6-2-3- Liquids: should be placed in leak-proof containers able to withstand thermal or chemical treatment. Do not use plastic bags to contain liquids.

6-2-4- Non-hazardous biological waste: heavy duty plastic bags or other appropriate container without a Biohazard label are preferred. Yellow biohazard bags or containers should not be used for non-hazardous material.

6-3- Biohazardous waste should be treated and disposed of promptly and not allowed to accumulate. Containers holding biohazardous material must be clearly labeled, including the Biohazard Symbol. Biological waste may be held temporarily under refrigeration, prior to disposal, in a safe manner that does not create aesthetic (visual or odor) problems. Storage enclosures must be clean and orderly with no access to unauthorized persons (warning signs must be posted).

6-4- Biohazardous waste must be rendered harmless by appropriate treatment prior to disposal. Waste should be treated as near the point of origination as possible. Treatment methods include: incineration; chemical disinfection; thermal disinfection; encapsulation.

6-5- Properly trained laboratory personnel (not custodial) shall be responsible for transporting treated biological waste from the generation site to the dumpster or incinerator. Untreated biohazardous waste shall be handled only by properly trained technical personnel.

6-6- Label autoclave bags with commercially available autoclave tape a sign upon adequate thermal treatment. Apply this tape across the Biohazard Symbol on the bag before autoclaving.

7. FORMS/TEMPLATES TO BE USED

7-1- Material transfer form

8. INTERNAL AND EXTERNAL REFERENCES


8.1 Internal References

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8.2 External References

8-2-1- Management and disposal of biological waste at TAMIU. Rev 4/99

8-2-2- Laboratory Biological Waste Disposal Guidance. 2016

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9. CHANGE HISTORY

9-1- Initial version:

- SOP No: 02-ver 01
- Effective Date: “see page 1”
- Significant Changes: --/
- Previous SOP no.: --/

9-2- Replacing a previous SOP:

- SOP No: --/
- Effective Date: --/
- Significant Changes: --/
- Previous SOP No: --/

SOP No.	Effective Date	Significant Changes	Previous SOP No.