CTRNet Standard Operating Procedure Biohazardous Material Waste Management			
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Approved By:	CTRNet Management Group (CMG)	01-June-2012
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1.0 PURPOSE

All Human Biological Materials (HBMs) whether fixed, lyophilized, fresh, frozen or paraffin embedded should be considered biohazardous. The degree of processing may reduce the risk from infective agents. However, certain agents may still be infective even when fixed or processed. All human specimens, independent of their state, should be treated with universal precautions. They should be handled as if infected with agents that may be pathogenic to humans.

2.0 SCOPE

This standard operating procedure (SOP) outlines processes that must be followed in order to dispose of biohazardous waste in a manner compliant to biosafety regulations and ensuring that the following risks are minimized:

2.1 Contamination of public waste sites with biohazardous materials.
2.2 Exposure of biobank and waste management personnel to infectious agents.

3.0 REFERENCE TO OTHER CTRNET SOPS OR POLICIES

Note: When adopting this SOP for local use please reference CTRNet.

3.1 *CTRNet Policy: POL 2 Ethics*
3.2 *CTRNet Policy: POL 4 Privacy and Security*
3.3 *CTRNet Policy: POL 7 Material and Information Handling*
3.4 *CTRNet Standard Operating Procedure: SOP 06.002 Handling Hazardous Chemical Waste*

4.0 ROLES AND RESPONSIBILITIES

This SOP applies to all personnel from CTRNet member biobanks that work at the biobank site and are responsible for collecting, processing and storing of biobank samples and disposing of biological waste.

Tumour Biobank Personnel	**Responsibility/Role**
Phlebotomist	Draw Blood from patient and read and understand product inserts
Laboratory Technician/Technologist	Collect and process biological material
Pathologist/Pathologist assistant	Collect, Process and assess biological material

5.0 MATERIALS, EQUIPMENT AND FORMS

The materials, equipment and forms listed in the following list are recommendations only and may be substituted by alternative/equivalent products more suitable for the site-specific task or procedure.

Materials and Equipment	Materials and Equipment (Site Specific)
Autoclave	
Waste disposal bags (appropriately labeled)	
Biohazardous sharps disposal containers	
Bleach or chemical disinfectant	

6.0 DEFINITIONS

See the CTRNet Program Glossary: http://www.ctrnet.ca/glossary

7.0 PROCEDURES

Biobanks must follow procedures regarding the disposal of biohazardous waste that minimized the risk it poses to the environment and to biobank personnel.

Procedures should ensure adherence to Canadian, provincial and institutional guidelines. The biobank must ensure the use of appropriate waste management techniques, containment levels, and training of personnel.

7.1 Disposal – Human Anatomical Waste

7.1.1 Place all human anatomical waste and materials that have come into contact with such waste into a bag clearly labeled with the universal biohazard symbol.

7.1.2 Biohazardous waste must be decontaminated before disposal to a landfill site.

7.1.3 Decontaminate by heat sterilization (autoclaving) and take to the institutional designated area for pick-up and disposal.

7.1.4 Biohazardous waste that has not been decontaminated can be picked-up by an established waste disposal company for disposal. This may require that the biobank obtain a special ministerial permit granting approval for generation and disposal of waste by this procedure.

7.2 Disposal – Biohazardous Liquids (Human Blood and Body Fluids Waste)

7.2.1 Dispose of blood and liquid biohazardous waste generated during sample processing by pouring the waste into a leak proof container containing freshly prepared 10 % chlorine bleach solution or other suitable chemical disinfectant. If possible perform this task in a fume hood.

7.2.2 After 30 minutes or a suitable time-interval ensuring decontamination, the solution may be discarded down the drain if permitted by local regulations.

7.2.3 Avoid the creation of aerosols or spills during this process.

7.3 Disposal – Sharps Waste

7.3.1 Recapping of needles is not recommended.

7.3.2 Dispose of all sharps waste into a readily available, CSA (Canadian Standards Association) approved puncture resistant container labelled with the biohazard symbol.

7.3.3 Sharps containers must be decontaminated (preferably by incineration or autoclaving) and disposed of in accordance with institutional, national and provincial guidelines.

7.4 Disposal of Waste for Non-Bankable Samples

a. In the case of inadequate or revoked consent, identify all samples associated with the participant.
b. Before disposal confirm the identity of the samples.

7.4.1 Destruction of Frozen Tissue

a. Retrieve samples from storage unit.
b. Leave samples in storage vials or cryomolds.
c. Place sample in the autoclavable biohazard bag.
d. Ensure that bag containing waste is incinerated or disposed of by a company with a license to do so.
e. Record that the sample has been discarded so as to update inventory systems.

7.4.2 Destruction of Blood Samples

a. Retrieve blood samples from storage unit.
b. Dispose of tubes in the biohazardous waste bag for incineration or adequate disposal as per institutional procedure.
c. Record that the sample has been discarded so as to update inventory systems.

8.0 APPLICABLE REFERENCES, REGULATIONS AND GUIDELINES

8.1 Tri-Council Policy Statement 2; Ethical Conduct for Research Involving Humans; Medical Research Council of Canada; Natural Sciences and Engineering Council of Canada; Social Sciences and Humanities Research Council of Canada, December 2010. http://www.pre.ethics.gc.ca/eng/policy-politique/initiatives/tcps2-eptc2/Default/

8.2 Best Practices for Repositories I. Collection, Storage and Retrieval of Human Biological Materials for Research. International Society for Biological and Environmental Repositories (ISBER). http://www.isber.org/Search/search.asp?zoom_query=best+practices+for+repositories

8.3 Canadian Council of Ministers of the Environment “Guidelines for the Disposal of Biomedical Waste in Canada” CCME-EPC-WM-42E

9.0 APPENDICES

None

10.0 REVISION HISTORY

SOP Number	Date revised	Author	Summary of Revisions
6.1.002	2008	JdSH	1st Release.

8.1.002 e1.1	June 2012	CMG	Section 1:Replaced “blood” with “biological fluid” Section 4: Replaced “The policy” with “This SOP” Section 6: Capitalized W Section 7.2.1: Added “If possible perform this task in a fume hood”. • Grammatical and formatting throughout • Definitions removed • Revision History moved to bottom • Reference links updates • Updated SOP references • Section 1.0: deleted second paragraph. • Section 3.0: Added CTRNet SOP 06.002 e2.0 • Section 4.0: Deleted Venipuncture nurse. • Section 7.0: Added “and institutional” • Added Sections 7.4.1 and 7.4.2.