 UNIVERSITY OF MALAYA	TRANSPORTATION OF BIOLOGICAL WASTE		
FACULTY OF MEDICINE	Version : 02	Effective Date: 01 January 2020	SOP 01

1. SCOPE

This procedure applies to all laboratory personnel authorized to work in the Faculty of Medicine, and University of Malaya (UM).

2. PURPOSE

The purpose of this document is to provide procedures for Transportation of Biological Waste in the Faculty of Medicine. All laboratories which generate such waste and transporting them to designated collection points are responsible for proper packaging, labelling and transporting of such waste. **These procedures apply to waste contaminated with/or containing biological material only.**

3. RESPONSIBILITY

The Principal Investigator, laboratory personnel, students or other person with operational responsibility shall assure compliance with these requirements within his/her laboratory or area of responsibility.

4. DEFINITION

The following materials are defined as infectious/biomedical waste:

4.1. Cultures and Stocks of Etiologic Agents and Associated Biologicals


This includes, but is not limited to, specimen cultures, cultures and stocks of etiologic agents and agents requiring biosafety level BSL 2 and 3 containment, wastes from production biologicals and serums, and discarded live and attenuated vaccines.

4.2. Laboratory waste which has come in contact with a biological material. This includes, but is not limited to, disposable laboratory personal protective equipment (gloves, gowns, shoe covers, masks), disposable laboratory plastic ware (culture dishes, plates and flasks, pipettes, and pipette tips), blood specimen tubes, devices used to transfer, inoculate and mix cultures; and paper and cloth which have come into contact with cultures and stocks of etiologic agents.

4.3. Sharps waste

All hypodermic needles, syringes with needles attached, IV tubing with needles attached, scalpel blades, and lancets that maybe or was in contact with infectious material.

4.4. Human pathological waste

 UNIVERSITY OF MALAYA	TRANSPORTATION OF BIOLOGICAL WASTE		
FACULTY OF MEDICINE	Version : 02	Effective Date: 01 January 2020	SOP 01

This includes human tissues and anatomical parts that emanate from surgery, obstetrical procedures, autopsy, teaching and research laboratories. This does not include extracted teeth, hair, toenails, fingernails, human corpses, remains, and anatomical parts that are intended for interment or cremation.

4.5. Human body fluids

This includes, but is not limited to, blood and blood products, serum and plasma, cerebrospinal fluid, synovial fluid, pleural fluid, peritoneal fluid, pericardial fluid, and amniotic fluid when they are in free-flowing form.

4.6. Infected human body substances

This includes wastes that have come into contact with human body fluids or tissues from humans infected with, or isolated to protect others from, highly communicable infectious diseases.

4.7. Animal waste

This includes, but is not limited to, animal carcasses, body parts, and bedding of animals that are known to be infected with, or that have been inoculated with, pathogenic microorganisms infectious to humans; animals requiring Animal Biosafety Level (ABSL) 2 and 3 containment.

4.8. Nonhuman primate waste

This includes, but is not limited to, non-human primate blood, carcasses, tissues, body fluids, and bedding.


4.9. Recombinant DNA

All contaminated liquid or solid waste from research activities involving risk group (RG) 1 agents requiring BSL-1 and ABSL-1 containment. All contaminated liquid, solid, carcasses, and animal wastes from research activities involving RG-2 agents requiring BSL-2 and ABSL-2 containment.

All contaminated liquid, solid, carcasses, and animal wastes from research activities involving RG-3 agents requiring BSL-3 and ABSL-3 containment

4.10. Contaminated laboratory glassware/plastic ware

Laboratory glassware which is known or suspected to be contaminated with hazardous biological agents and disposable containers, materials, and supplies that may have been contaminated with viable biological agents.

 UNIVERSITY OF MALAYA	TRANSPORTATION OF BIOLOGICAL WASTE		
FACULTY OF MEDICINE	Version : 02	Effective Date: 01 January 2020	SOP 01

5. PREPARATION

5.1. Materials

- 5.1.1. PPE as determined by risk assessment

5.2. Equipment

- 5.2.1. Transport cart or equivalent


5.3. Documents and records

- 5.3.1. Waste label
- 5.3.2. Schedule 2 (notification), Schedule 5 (inventory) and Schedule 7 (waste card)

6. PROCEDURE

6.1. Labeling, Handling, Storage and Internal Transportation

- 6.1.1. Each bag and/or container of biohazardous waste must be clearly identified at the point of production and must be clearly labeled (waste label).
- 6.1.2. Waste label (ANNEX 1) should be pasted onto the clinical waste bag and/or container which include the date when the scheduled wastes are first generated, name, location and contact number of the waste generator shall be included on the label.
- 6.1.3. Then the clinical waste bags must be disposed in the 240L Biohazard Bin provided by the licensed waste collection company.
- 6.1.4. Double clinical waste bags shall be used for clinical wastes from high risk areas such as infectious disease and if rigid wastes are discarded (e.g. long Pasteur pipettes, ELISA plates etc.) to prevent tearing of the bags. The inner layer can be of any color variant, but the outmost layer **MUST BE** the standard yellow bag **WITH** printed biohazard signage.
- 6.1.5. Any contaminated sharps and syringes with attached needles shall be discarded into sharps containers as one unit.
- 6.1.6. Temporary storage of waste should be placed in a restricted area and located adjacent to the source of the waste, within the department or unit. Label the storage area with the biohazard symbol, or put a sign or mark to differentiate between hazardous and non-risk wastes.
- 6.1.7. When the 240L bin is filled up, locked the bin before transporting. On-site transportation of waste from the laboratory to the collection point must be performed in safe transport practices with appropriate based on the risk assessment conducted by the personnel involved

 UNIVERSITY OF MALAYA	TRANSPORTATION OF BIOLOGICAL WASTE		
FACULTY OF MEDICINE	Version : 02	Effective Date: 01 January 2020	SOP 01


in the waste management. Do not touch door handles or other common contact surfaces with gloved hands. (Use the one-gloved hand technique, or get assistance from other staff for opening doors, etc.)

- 6.1.8. In the event of the unavailability of the 240L bin, a designated transport cart or equivalent is to be utilized for transportation of waste.
- 6.1.9. Internal transport routes (from departments/units to the collection area, refer ANNEX 2-A, 2-B) shall be designed to minimize the passage of waste through community areas and other clean areas.
- 6.1.10. In the event whereby a mechanical lift is needed to transport the waste, the personnel transporting the waste need to make sure the said lift is empty to ensure no cross-contamination.
- 6.1.11. If manual handling of clinical waste bag is required, the neck of the bag should be positioned for further movement. All clinical bags should be handled by the neck only. (Manual handling should be minimized where possible).
- 6.1.12. If any spillage or unintentional release occur during the transportation of waste, the personnel transporting the waste need to contain and handle the spillage and immediately report the incident to OSHE Unit, Faculty of Medicine.



6.2. Waste Collection Schedule and Documentation


- 6.2.1. Proper record of the generation and handling of clinical waste should be documented by the laboratory personnel.
- 6.2.2. The 5th Schedule (inventory) (ANNEX 3) must be filled by the faculty representative at the designated collection location upon weighting of the biological wastes.
- 6.2.3. Waste will be collected from designated collection points (ANNEX 2) on pre-determined morning session by the waste management licensed contractor (appointment by JPPHB) and empty bins will be collected and transported back to the respective laboratories by laboratory personnel and/or students.
- 6.2.4. The 5th Schedule (inventory) is to be submitted to the officer from JPPHB (whom are monitoring the process) immediately after the collection session has ended.
- 6.2.5. All records should be kept and retained for monitoring purposes.

7. ANNEX 4 describes the process in a flow chart form.

 UNIVERSITY OF MALAYA	TRANSPORTATION OF BIOLOGICAL WASTE		
FACULTY OF MEDICINE	Version : 02	Effective Date: 01 January 2020	SOP 01




ANNEX 1


		(NAMA PTJ)
 INFECTIOUS SUBSTANCES BAHAN BERJANGKIT		
KOD SISA WASTE CODE	: SW404	
PENERANGAN SISA WASTE DESCRIPTION	: BUANGAN PATOGENIK, BUANGAN KLINIKAL ATAU BAHAN YANG DIKUARANTINKAN PATHOGENIC WASTE, CLINICAL WASTE OR QUARANTINED MATERIALS	
TARIKH DIHASILKAN DATE GENERATED	:	TARIKH DILUPUSKAN : DATE DISPOSED (KE STOR SISA PTJ)
NAMA PENGELUAR SISA NAME OF WASTE GENERATOR	:	(HANYA STAF TETAP SAHAJA)
BILIK/MAKMAL ROOM/LABORATORY	:	
JABATAN/UNIT DEPARTMENT/UNIT	:	
NO. TEL. (PEJABAT/BIMBIT) TELEPHONE NUMBER	:	

 UNIVERSITY OF MALAYA	TRANSPORTATION OF BIOLOGICAL WASTE		
FACULTY OF MEDICINE	Version : 02	Effective Date: 01 January 2020	SOP 01


ANNEX 2-B

List of departments/unit transporting to designated collection points

Point A 	Point B 	Point C 
Department of Surgery	AEU	Department of Molecular Medicine
NOCERAL		MD1
Department of Medical Microbiology		Medical Biotechnology Laboratory (MBL)
CMBL		Department of Pharmacology
Department of Parasitology		Department of Physiology
MD2		Department of Biomedical Science

 UNIVERSITY OF MALAYA	TRANSPORTATION OF BIOLOGICAL WASTE		
FACULTY OF MEDICINE	Version : 02	Effective Date: 01 January 2020	SOP 01

ANNEX 3

	JABATAN PEMBANGUNAN DAN PENYELENGGARAAN & HARTA BENDA, UNIVERSITI MALAYA	
	INVENTORI BUANGAN TERJADUAL SCHEDULED WASTES INVENTORY JADUAL KELIMA (Peraturan 11) AKTA KUALITI ALAM SEKELILING 1974	NO. BOR : JPPHB/SISA/JADUAL /no.2 NO. REVISI : 02 MUKASURAT : 1 DARIPADA 1 TARIKH EFEKTIF: SEPTEMBER 2019
	SW109 SW206 SW301 SW305 SW306 SW307 SW315 SW319 SW320 SW322 SW323 SW402 SW403 SW404 SW408 SW409 SW416 SW421 SW430 OTHERS	

Ptj / Faculty : _____
 Nama / Name : _____
 Jawatan / Designation : _____
 No. Tel / Handphone : _____
 Bilik / Makmal (Room / Lab) : _____

Jabatan / Unit (Dept / Unit) : _____
 No. Tel / Phone no. : _____
 Emel / Email : _____

*TARIKH <i>Date</i>	KOD KATEGORI BUANGAN <i>Waste Category Code</i>	KUANTITI <i>Quantity</i>		PUNCA AKTIVITI <i>Source Activity</i>	TARIKH HANTAR KE STOR PTj ^b <i>Date sent to PTj's store</i>	TINDAKAN KOORDINATOR SISA <i>For waste coordinator action</i>	
		BOTOL / BEKAS / UNIT <i>Bottle / Container / Unit</i>	TAN METRIK <i>Metric Tonnes</i>			TARIKH PENERIMAAN, T/T & COP <i>Date Received, Sign & Stamp</i>	TARIKH DIANGKUT ^c <i>Date of transported</i>

Nota / Note :

^a Tarikh bila buangan terjadual dikeluarkan buat kali pertama
Date when scheduled wastes are first generated

^b Stor Ptj – stor sementara di makmal atau Jabatan yang berdaftar di Ptj
PTJ's store – registered temporary storage at laboratory or department

^c Tarikh buangan terjadual diangkut dari stor PTj
Date of scheduled wastes transported outside PTJ's store


Saya mengaku bahawa maklumat yang diberikan adalah benar dan betul sepanjang pengetahuan saya.
I certify that the information provided is true and correct to the best of my knowledge

.....
Tandatangan pengeluar sisa / Staf makmal / Pensyarah / Penyelidik / koordinator sisa
Signature of waste generator / Lab Staff / Lecturer / Researcher / Waste Coordinator

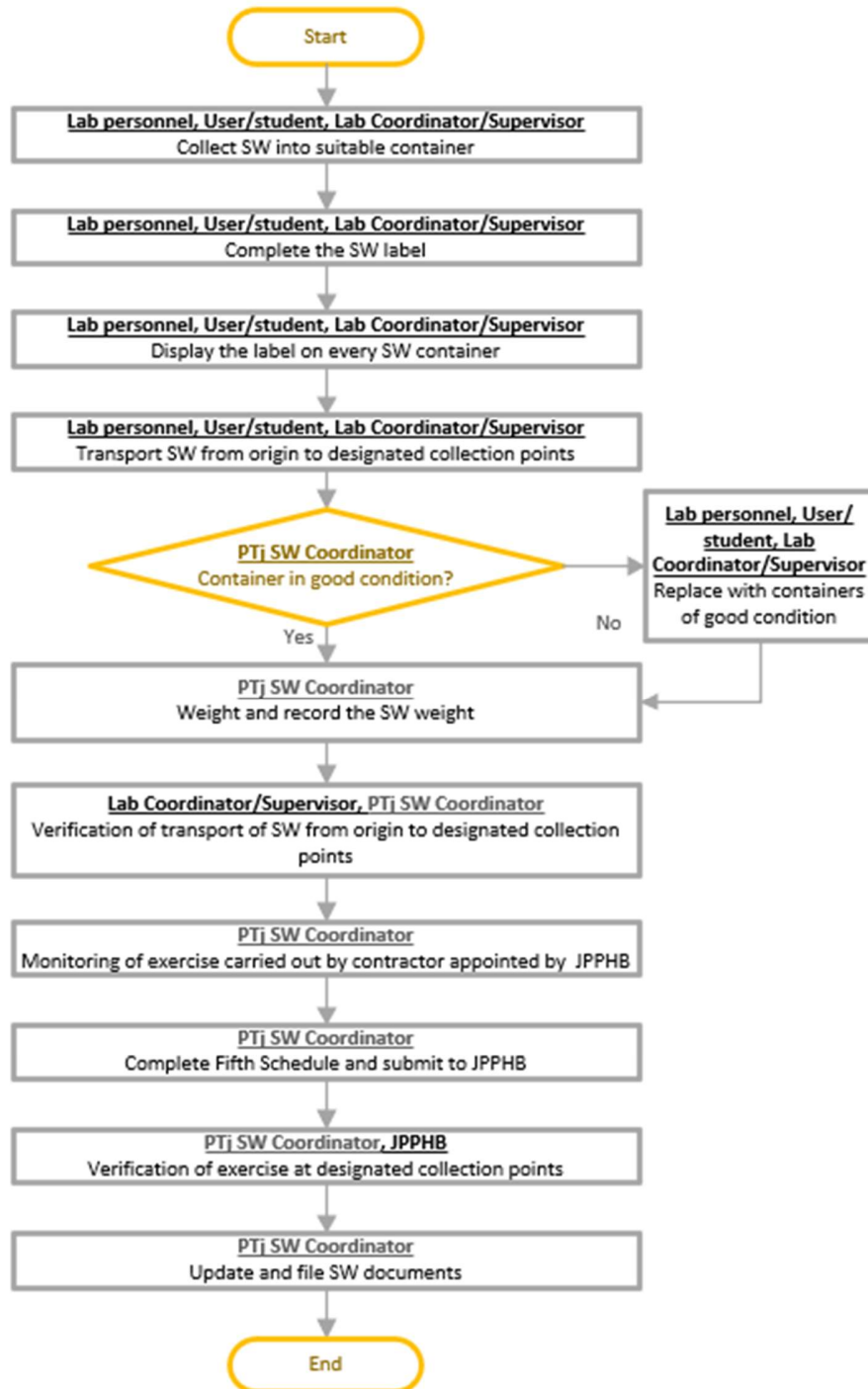
Nama / Name :


Jawatan / Designation :

Tarikh / Date :

 UNIVERSITY OF MALAYA	TRANSPORTATION OF BIOLOGICAL WASTE		
FACULTY OF MEDICINE	Version : 02	Effective Date: 01 January 2020	SOP 01

ANNEX 4




 UNIVERSITY OF MALAYA	TRANSPORTATION OF BIOLOGICAL WASTE		
FACULTY OF MEDICINE	Version : 02	Effective Date: 01 January 2020	SOP 01

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6. UM Portal (PTj Info -> JPPHB -> Bahagian Pentadbiran)

Revision History

Date	Version	Changes
12 August 2020	1	Initial version
14 January 2021	2	Modified ANNEX 2 into 2-A, 2-B (with accompanying entries in Section 6); added ANNEX 4 (with accompanying entry in Section 7)

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