



Standard Operating Procedure

Biomedical Waste Disposal Procedures

I. POLICY: The Puerto Rico Clinical and Translational Research Consortium (PRCTRC) ensure the safety and well being of participants and employees in research studies performed in its facilities.

II. PURPOSE: The purpose of this Standard Operating Procedure (SOP) is to define biomedical waste and to provide information on the handling and disposal of this waste stream. These guidelines are intended to ensure the proper and safe management of biomedical waste at the PRCTRC.

III. Area(s) of Responsibility: This policy applies to:

Principal Investigators:

- Ensure all lab staff/students have received proper training to deal with biomedical waste. Communicate these guidelines to key personnel;
- Ensure labs are equipped with the proper containers and or bags and that they are ideally located.

Users (students, lab or clinic personnel):

- Practice due diligence at all times when handling biomedical waste (i.e. wear protective equipment);
- Ensure familiarity with the handling, treatment and disposal procedures of the waste you generate.

Biomedical Waste Representative:

- Arrange for pick-up/drop off of waste with users;
- Transport or assist in transport of waste to designated storage areas;
- Log waste information in the appropriate log;
- Contact Consolidated Waste Services, Corp. (ConWaste) to arrange for pick up of full containers and for re-supply (where applicable)
- Maintain records regarding the amount of waste generated;
- Ensure Principal Investigators, users, and representatives are complying with guidelines;
- Provide guidance regarding the handling treatment or disposal of biomedical waste.

IV. Procedures: General Guidelines:

1. Segregation

- Biomedical waste must be stored in a secure environment at all times;
- Whenever possible, biomedical waste must not be mixed with chemical, or other laboratory trash;
- The various types of biomedical waste should be segregated from each other;
- Fluid waste should be contained from solid waste.

2. Containment & Labeling

Containers for biomedical waste must be appropriate for its contents. There are several different kinds of containers and bags available for the containment and disposal of biomedical waste. Containers and bags are available through the department supervisors (Nursing and Laboratory). The various types of packaging and associated labeling used for different types of biomedical waste are outlined below.

All containers for biomedical waste must display the biohazard symbol and the words 'Biohazard' in a color contrasting the container.

Sharps:

- must be rigid, leak proof, puncture resistant and sealable;
- containers are available upon request;
- labeling will be performed by the PRCTRC Clinical Staff.

Anatomical Waste:

- place waste in a red biohazard bag if the waste will immediately be stored in a barrel lined with red biohazard bags;
- barrels are approved heavy-duty rigid;
- labeling will be performed by the PRCTRC Clinical Staff.

Biological Laboratory Waste:

All the laboratory waste will be transported by Consolidated Waste Services, Corp. (ConWaste) for treatment and final disposal.

Solid:

- Collect waste in a red or orange autoclavable biohazard bag;
- Use the appropriate label.

Liquid:

- Use leak-proof containers which are able to withstand thermal or chemical treatment;
- Use the appropriate label.

Blood & Bodily Fluids:

Vials

- Deposited in approved container, following the approved disposal procedures.

Fluids:

- Use rigid leak-proof container, following the approved disposal procedures.

Saturated Items

- Same as solid waste or anatomical waste.

The following are some guidelines to remember when packaging waste:

- Double bag if necessary to prevent perforations;
- Add absorbent material if the possibility of large volumes of liquid exists;
- Ensure the bags are well sealed;
- Do not overfill the containers/bags;
- If the outside of the bag is contaminated, double bag;
- Secondary containment should also be labeled with the biohazard symbol.

3. Handling/Transportation

- Untreated waste should be handled as little as possible;
- Avoid contaminating exterior surface of waste container, or ensure exterior surfaces are decontaminated;
- Avoid transport of untreated waste through non-lab or high traffic corridors;
- Secondary containers must be used when transporting waste (especially for liquids). The secondary containers should be decontaminated after use;
- Whenever possible use carts with raised sides for transport;
- Ensure containers or bags are tightly closed or taped shut during transport.

4. Collection

Collection of biomedical waste varies for different services or departments depending upon waste generation practices, available resources or management approaches. For more specific information contact Nursing and/or Laboratory personnel.

5. Storage

Although biomedical waste should be treated as promptly as possible it can be held temporarily. Treatable waste should not be allowed to accumulate. Waste that is to be disposed off-site should be stored in designated areas that are secure and access is limited to delegated individuals. To prepare for off-site disposal the following measures must be undertaken.

Sharps

- Sharp containers must be placed in a defined cardboard box, double lined with two red bags, which displays the biohazard symbol;

- When boxes/containers are full they should be closed, taped shut on all sides (with a tape that withstands condensation);
- Boxes should be held in designated biomedical waste cages.

Anatomical Waste

- Drums, either while filling or when full must be held in cold storage at a 4° minimum;
- Once full, drums should be closed and the lid should be taped securely;
- All barrels which contain carcasses or anatomical waste must have an 'Anatomical' sticker affixed.

6. Disposal

The Clinical Coordinator will contact the Consolidated Waste Services, Corp. (ConWaste) to arrange for a waste pick-up from the storage area. Biomedical waste is currently picked up every two weeks at PRCTRC.

7. Re-supply

New and/or replacement supplies may be requested through the service representative or through stores.

8. Records

As biomedical waste is potentially hazardous, it is important to document the nature of the waste. Labels attached to waste bags or sharps containers should detail the contents. The PRCTRC maintains records of the type of waste (tissue or sharp), the weight and the corresponding cost for disposal, each waste generator should have a system to track their own waste. The following forms are used for tracking biomedical waste at the University of Puerto Rico, Medical Sciences Campus.