



Feb 17, 2021

# Tissue Procurement: Biosafety Guidelines

Kerry Wiles<sup>1</sup><sup>1</sup>Cooperative Human Tissue Network Western Division at Vanderbilt University Medical Center**1** Works for me [dx.doi.org/10.17504/protocols.io.6y6hfze](https://dx.doi.org/10.17504/protocols.io.6y6hfze)

Laboratory of Systems Pharmacology NCIHTAN

Madison Tyler  
Laboratory of Systems Pharmacology

SUBMIT TO PLOS ONE

## ABSTRACT

The biosafety guidelines in this protocol are based on the Center for Disease Control's *Biosafety in Microbiology and Biomedical Laboratories (BMBL)*, which has served as the cornerstone of biosafety practice in the United States since its initial release in 1984. The information in this protocol was extracted from the BMBL and truncated to provide CHTN VUMC staff members with the knowledge necessary to complete their training requirements. The protocol is used as both a reference and training SOP for the tissue procurement and the bodily fluids/blood processing protocols.

## DOI

[dx.doi.org/10.17504/protocols.io.6y6hfze](https://dx.doi.org/10.17504/protocols.io.6y6hfze)

## PROTOCOL CITATION

Kerry Wiles 2021. Tissue Procurement: Biosafety Guidelines. **protocols.io**  
<https://dx.doi.org/10.17504/protocols.io.6y6hfze>

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## CREATED

Aug 30, 2019

## LAST MODIFIED

Feb 17, 2021

## PROTOCOL INTEGER ID

27390

## MATERIALS TEXT

### Additional references and information

#### References:

Code of Federal Regulations Title 29, 43, 49

Environmental Protection Agency- Standard for Tracking and Management of Medical Waste

Gibbs FL and Kasprisin CA, eds. Environmental safety in the blood bank. Arlington, VA: American Association of Blood Banks, 1987

IATA International Air Transportation Association, Dangerous goods regulations, Montreal, Quebec. January 1, 1988

## BEFORE STARTING

Please be conscious of what you are doing with your gloved hands. At NO TIME should gloves be worn in the hospital hallways! Always remove your gloves when entering patient/hospital areas and re-glove when you reach your destination.

NEVER open or close a clamshell or other receptacle that will be shipped to an investigator that could cause potential infection/contamination. Many times, the receiving department at each institution unpacks materials and notifies the lab and are not staffed with individuals that are fully trained in dealing with potentially infectious material or human tissue.

#### Tissue Procurement: Biosafety Guidelines

- 1 Collection is done by trained personnel and all products are handled separately and under as sterile conditions as possible. You will always take the necessary precautions for your safety, BUT also take the necessary precautions to protect the tissue FROM you.
- 2 Don appropriate personal protective gear (eyeglasses, face shields, lab coats, gloves).
- 3 NEVER allow tissue to come into contact with ANY of the following;
  - Absorbent material-- capillary action draws tissue fluid, Lymph nodes etc out of tissue. ALWAYS use clean wax paper or back of blue Chux for cutting.
  - A previously soiled or bloody cutting surface. Please ask the pathology assistants' (PA) or residents to section on clean surface.
  - Another piece of tissue from same patient. (i.e. Liver and colon from same patient should be cut with different scalpels and cutting surfaces. This also holds true for different tissue types-- Tumor, Normal etc).
- 4 All samples should be handled as quickly and safely as possible. If possible please transport tissue from OR on ice and make sure it is covered, to surgical pathology.
- 5 Do NOT leave the tissue unattended with the resident. You will need to respectfully indicate the necessity for tissue and procurement details.
- 6 ALWAYS use appropriate number of containers placed in ice bucket, clearly labeled for tissue type, anatomic site required. NEVER place normal and tumor in contact with each other. NEVER place multiple tissue anatomic sites in one container. Each anatomic site and tissue type MUST have its own container.
- 7 Gloves should be changed frequently to avoid contaminating lab areas. For example, if you are procuring a breast (larger specimen) and anticipate that your gloves will touch the sample, thus contaminating them, you must:
  1. First decide if you should double glove. This may assist a faster collection protocol, by allowing you to quickly remove the tainted glove and providing you a clean pair to close clamshells of other receptacles or enter data using the keyboard.
  2. Allow you to quickly discard tainted gloves and answer the phone or answer the door without having to re--glove.
  3. Reassure our investigators that all collections occur under very stringent SOPs and we can relay to them that the receptacles that contain their specimens are clean and sterile on the outside.
  4. If you suspect that you will be changing gloves during a procedure at the bench, it is good practice to retrieve a set of gloves and having them close by, rather than reaching across the lab bench and potentially contaminating your lab coat or scrubs with blood.
  5. Please use proper technique when removing gloves. The technique for removal of one pair of gloves or double is to gently grab the area near the base of the thumb of one hand and gently pull up and over the fingers to partially remove the glove. When your fingers are encase in the glove, with the clean side of the glove exposed, take your clean--gloved finger and insert under the top of the glove of your other hand, near the wrist and pull the glove over

your hands. This method allows the areas that may be bloody to remain inside the gloves at all times. If you have double-gloved, use the same procedure to remove the first glove and then, using the inside of the glove you just removed (which should be sterile/clean), insert under the glove still on the other hand to remove.

- 8 Your procurement area must be thoroughly cleaned after each donor. You must also dispose of your procurement instruments in the "dirty" bin for the Lab Tech to retrieve for cleaning and sterilization.
- 9 Storage and disposal of all collection materials, including laboratory samples upon aliquot completion must be done in compliance with Biosafety levels of materials. Proper and recognized safe procedures for disposal of blood products or other contaminated materials include Autoclaving for 1 hour at 121 degree Celsius or incineration. Biohazardous trash will be picked up when needed by the Lab Techs, but you may call them to schedule the pick up.
- 10 Safety instructions in compliance with current OSHA/VUMC policy with specific directions regarding hand washing between donors, and safe use and disposal of protective equipment, including gowns, gloves, goggles and masks is part of your VUMC Safety training program, but should be re-iterated by your team leader.
- 11 Written procedures for treatment, notification of management and documentation of injury and follow up when injury to employees occurs during collection and handling of blood and bodily fluids. (VUMC/Occupational Health First Report of Injury is required.)
- 12 Written records must be maintained showing that all personnel have been adequately trained in safety procedures, including retraining as necessary to maintain skills required for current responsibilities. You will on occasion be asked to participate in extra training and be required to pass any associated training tests. Upon completion, you will receive your certificate for training and will need to make a copy and give to the Coordinator and Administrative Assistant to place in employee file for audit purposes.
- 13 Active immunization if offered to personnel susceptible to possible infection by hepatitis B virus.
- 14 Safety program plans are periodically reviewed and updated as necessary.