



Human Specimens – Collection, Transport and Processing Standard Operating Procedure (SOP)

Scope:

This SOP is intended for work with human materials excluding the following:

1. Brain and other central nervous system tissues
2. Any materials from subjects known or suspected to have Creutzfeldt-Jakob disease (CJD) or other prion-related illness

General safety procedures:

1. All laboratory personnel must complete Initial Chemical and Biological Safety Training and Board of Regents Bloodborne Pathogens Right-to-Know Training before working with potentially infectious materials, including fresh, unfixed human specimens.
2. All laboratory personnel must be screened by Employee Health and Wellness before working with potentially infectious materials, including fresh, unfixed, human specimens. Any available vaccinations which would reduce the risks associated with exposure to any of the agents in the protocol must be offered to all personnel or a signed waiver must be obtained by the PI.
3. Persons who are at increased risk of infection, or for whom infection may have serious consequences, will not be allowed to enter laboratory when work with potentially infectious agents is in progress.
4. All persons entering the laboratory will be advised of potential hazards. Laboratory workers will receive laboratory specific training and will be made aware of the hazards and appropriate safety precautions before working with human specimens. This training will include review of the Biosafety Protocol and laboratory specific Standard Operating Procedures.
5. Laboratory staff will treat all specimens using Universal Precautions, AS IF infected.
6. Access to the laboratory is limited to staff, or other persons with permission of the Principal Investigator, when work with potentially infectious materials is being conducted.
7. The laboratory must have a sink for hand washing and adequate supplies must be available (i.e. soap and paper towels).
8. The laboratory must have an eyewash/safety shower which must be flushed at least monthly and the area around the sink kept clear of obstructions.
9. All personnel must know the location of the sink and eyewash/safety shower.
10. Laboratory doors must be locked when unattended.
11. Laboratory furniture and furnishing must be non-porous to allow for disinfection – carpeting, cloth chairs are not permitted.
12. Spaces between benches, cabinets, and equipment must be kept accessible for cleaning.



13. Absorbent material such as cardboard boxes (other than biohazard boxes) must not be placed on the floor
14. Laboratory staff will not eat, drink, smoke, handle contact lenses, chew gum, or apply cosmetics in laboratory.
15. No hospital scrubs are to be worn in research laboratory areas.
16. All personal belongings, including food or drink, must be stored in areas designated for that purpose only.

Specimen collection:

1. Specimen collection should only be performed by personnel who have been trained and have demonstrated competency in the procedure to be performed.
2. Specimen collection must be performed in a patient care setting or in a laboratory space specifically designated for that purpose; it must not be performed in any area used for sample processing or analysis or in a basic science laboratory.
3. Universal precautions should be followed when collecting and/or handling specimens, including the following:
 - a. Washing hands thoroughly before the procedure.
 - b. Lab coat, gloves and safety glasses will be worn during the procedure and when handling vials and test tubes containing oral specimens.
 - c. Gloves will not be re-used under any circumstances.
 - d. All sharp objects will be placed in a sharps container placed within easy reach for disposal immediately following use.
 - e. Sharps will not be recapped or reused.
 - f. All medical personnel will remove gloves and wash hands before leaving patient care room or the room where the specimen collection was performed.

Centrifugation and opening vacuum tubes:

1. Rotors with safety caps should be used when spinning human materials.
2. Safety caps should only be opened in a biosafety cabinet.
3. If a vial breaks during centrifugation, do not open the centrifuge; call the Biological Safety Office (1-2663) for assistance.
4. Vacuum tubes containing human blood should only be opened inside a biosafety cabinet.

After completion of procedures:

1. Surfaces
 - a. All work surfaces are to be decontaminated at the completion of work, at the end of the day, and after any spill or splash of viable material.
 - b. An EPA registered, hospital approved disinfectant will be applied to all surfaces, concentration and contact time according to the manufacturer's instructions. *For example: a freshly diluted 10% bleach solution (v/v) will*



be applied to all surfaces and allowed to air dry for 30 minutes; this may be followed by a water or 70% ethanol rinse (note: stainless surfaces will corrode if not rinsed)

- c. Equipment must be decontaminated before removal from the laboratory (for repair maintenance or other purposes).
2. Liquids
 - a. Add an EPA registered, hospital approved disinfectant, final concentration and contact time according to manufacturer's instructions. *For example: add concentrated bleach to a final concentration of 10% bleach – treat for 30 minutes*
 - b. Pour treated waste into sink, place container in biohazard waste box.
3. Biohazard boxes and sharps containers
 - a. Any disposable materials (i.e. bench pads, gloves, paper towels) that may have been in contact with human material will be disposed of in biohazard containers.
 - b. No specimens or materials that have been in contact with human specimens will be placed in the trash.
 - c. Do not overfill – Environmental Services will remove when they are 2/3 full.
 - d. If waste containers are close to full and have not been removed, call 1-2434 to request new containers.

Specimen storage procedures:

1. Refrigerators and freezers where specimens are stored will only be accessible to authorized personnel.
2. Locations where specimens are stored will be marked with biohazard stickers.

Transport of specimens:

1. This SOP is only applicable for transport of samples from one location to another without leaving the campus. Shipping or transport of biological materials to or from an off-campus location (or between campuses, i.e. from Summerville to the Health Sciences Campus) requires specific training – contact the Biological Safety Office for more information.
2. Packaging of samples
 - a. Samples must be placed in a leak proof, puncture proof outer container for transport (i.e. a Rubbermaid type container)
 - b. Outer container must be labeled with contact information and a biohazard sticker.
3. If a biological spill occurs during transport, contact the Biological Safety Office (1-2663) for assistance

Please consult the Biological Safety Office webpage for guidance documents that are specific to spill clean-up, accidents and injuries: <http://www.augusta.edu/services/ehs/biosafe/>