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| **Safely Obtaining and Handling Autopsy Samples for Analysis** |
| **Purpose** | This procedure provides instructions for SAFELY OBTAINING AND HANDLING AUTOPSY SAMPLES FOR ANALYSIS. |
| **Materials** |

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| **Supplies** |
| * Personal protective equipment
	+ Gloves
	+ Disposable gown
	+ Disposable apron
	+ Sleeve protectors
	+ Face mask
	+ N95 mask
	+ Goggles/eye shield
	+ Face shield
	+ Disposable shoe covers
 | * Bleach 10%
* Formalin 10%
* Liquid cleanser
* Cavicide
* Oxivir Tb wipes/Sani-Cloth wipes
* Puncture resistant biohazard sharps container
* Puncture resistant specimen container
* Red biohazard bags
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| **Sample** | Autopsy samples |
| **Procedure** | Follow the activities in the table below for SAFELY OBTAINING AND HANDLING AUTOPSY SAMPLES FOR ANALYSIS.

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| **Step** | **Action** | **Related Document** |
| 1 | Don personal protective equipment (PPE) to include gloves, gown, and face shield, or goggles and mask.Additional PPE (disposable apron, sleeve protectors, foot covers) may be necessary during procedures likely to generate droplets, splatters or splashes.Cut-resistant glove liners are also available.A N95 or PAPR must be used while working with patients that had or were suspected of having a highly infectious disease (i.e. Avian influenza, MERS-CoV, SARS-CoV, COVID-19).  |  |
| 2 | Keep mechanical protective devices on instrumentation to reduce injury and exposure to blood and body fluids.The bone saw is equipped with a shield over the blade to prevent injury to the user and a vacuum system fitted with a HEPA filter to remove and collect bone dust and aerosols. |  |
| 3 | Minimize the formation of droplets, splatters, splashes and spills. |  |
| 4 | Fix all samples suspected of tuberculosis, hepatitis or HIV in 10% formalin before processing. |  |
| 5 | See the related policy listed for handling suspected Creutzfeld-Jakob Disease (CJD) samples. | [HI 1.18 CJD Disinfection Procedure](http://khan.childrensmn.org/Manuals/Lab/SOP/HIS/AutProc/191071.pdf) |
| 6 | In the case of therapeutic radioactive beads, radioactive tissues, or other radioactive contamination, consult the hospital radiation officer for appropriate measures for limiting the exposure to radiation during autopsy and during body transfer.The hospital radiation officer will advise on post-exposure testing of laboratory personnel. | [HI 1.19 Handling Tissues That May Contain Radioactive Material](http://khan.childrensmn.org/Manuals/Lab/SOP/HIS/CytProc/184555.pdf) |
| 7 | Decontaminate work surfaces at the completion of a task, when known to be contaminated, and at a minimum, at the completion of the autopsy.Flush away formaldehyde spills with soap and water BEFORE using bleach to prevent the formation of carcinogenic gas from the combination of formaldehyde and bleach. |  |
| 8 | Discard fresh and fixed patient samples not needed for retention or testing in a container lined with a red biohazard bag. |  |
| 9 | Discard disposable scalpel blades, needles, and other sharps in a puncture resistant biohazard container. |  |
| 10 | Soak reusable instruments/tools in liquid cleanser, scrub clean, rinse with water and place into Cavicide for a minimum of one half hour. Rinse with water, dry and replace properly. | [A 1.01 Autopsy Protocol](http://khan.childrensmn.org/Manuals/Lab/SOP/HIS/AutProc/191065.pdf) |
| 11 | Oxivir Tb wipes & Sani-Cloth wipes may be used to clean other equipment used (sink, bone saw, flooring if necessary).Do not immerse the bone saw’s handle/motors in water. Unplug the saw before removing the blades for cleaning. | [A 1.01 Autopsy Protocol](http://khan.childrensmn.org/Manuals/Lab/SOP/HIS/AutProc/191065.pdf) |

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| **Supporting Documents** | [SA 10.01 Standard Precautions](http://khan.childrensmn.org/Manuals/Lab/SOP/Gen/Safety/SA/207671.pdf)[SA 10.04 Personal Protective Practices](http://khan.childrensmn.org/Manuals/Lab/SOP/Gen/Safety/SA/205901.pdf)[A 1.01 Autopsy Protocol](http://khan.childrensmn.org/Manuals/Lab/SOP/HIS/AutProc/191065.pdf)[HI 1.18 CJD Disinfection Procedure](http://khan.childrensmn.org/Manuals/Lab/SOP/HIS/AutProc/191071.pdf)[HI 1.19 Handling Tissues That May Contain Radioactive Material](http://khan.childrensmn.org/Manuals/Lab/SOP/HIS/CytProc/184555.pdf)[A 2.14 Personal Protective Equipment](http://khan.childrensmn.org/Manuals/Lab/SOP/HIS/AutProc/197677.pdf)[1201.01 Standard Precautions for Infection Prevention and Control](http://khan.childrensmn.org/manuals/policy/1200/005603.pdf) |
| **References** | 1. OSHA Bloodborne Pathogen Standard 1910.1030.
2. CDC Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings. 2007.
3. CLSI. Protection of Laboratory Workers from Occupationally Acquired Infections; Approved Guideline-Fourth Edition. CLSI document M29-A4. Wayne, PA: Clinical and Laboratory Standards Institute; 2014.
4. SARS, *Appendix F5— Laboratory Biosafety Guidelines for Handling and Processing Specimens Associated with SARS-CoV,* CDC; Dec 6, 2017.
5. MERS, *Lab Biosafety Guidelines,* CDC; Aug 2, 2019.
6. COVID-19, *Laboratory Biosafety Guidelines,* CDC; Aug 11, 2020.
7. Influenza (Flu), *CDC and USDA: Interim Risk Assessment and Biosafety Level Recommendations for Working with Influenza A (H7N9) Viruses*, CDC; Jun 6, 2013.
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| **Historical Record** | **Version** | **Written/Revised by:** | **Effective Date:** | **Summary of Revisions** |
| 1 | Carol Cram |  | Initial  |
|  | 2 | Kerstin Halverson |  |  |
|  | 3 | Carol Buhl & Daniel Olson | 09/30/2010 | Reformatted.Added related documents. |
|  | 4 | Carol Buhl | 10/31/2014 | Renumbered from 10.5.3.Added radiation safety information.Added references. |
|  | 5 | Carol Buhl | 11/03/2015 | Listed additional PPE: Sleeve protectors, cut-resistant glove liners.Included safety features on bone saw: blade shield & vacuum with Hepa filter.Added H 1.19 Handling Tissues That May Contain Radioactive Material to Supporting Documents.Added CLSI reference. |
|  | 6 | Andrew Fangel | 10/14/2020 | Clarified necessary PPE for dealing with patients suspected of having a highly infectious disease. Added references. |