Policy: Tissue/organs/body fluid removed at autopsy at the discretion of the Attending medical examiner or received post autopsy examination are retained and stored at the District of Columbia Office of the Chief Medical Examiner (DC OCME). These tissues shall be saved in a fashion consistent with the sound practice of Forensic Pathology.

Purpose: To ensure for proper tissue/organ/body fluid retention and disposition in accordance with the Forensic Autopsy Performance Standards and mission of the OCME.

Scope: The DC OCME's mandate is to perform death investigations. As such, it has no authority to remove and/or preserve tissues/body fluid outside of what is allowed for determination of cause and manner of deaths. This policy shall apply to all OCME employees.

Definitions and Abbreviations:

CMS: Electronic Case Management System

DNA- Deoxyribonucleic acid is a carrier of genetic material and analyzed to identify decedents in forensic practice.

FTA cards: Transport medium used to collect blood samples for nucleic acid preservation.

METT: Medical Examiner Transportation Team

OCME: District of Columbia Office of the Chief Medical Examiner

Qualtrax: Electronic Document Management System

SOP- Standard Operating Procedures

1. Wet Tissue Retention Post-Autopsy Examination, Consultation, and Organ Donation

1.1. Wet tissue may be retained at the time of the autopsy examination at OCME for the purposes of long term archiving, consultation services, and organ donation.

1.1.1. At the discretion of the Attending medical examiner, whole organs, samples of major organs, and any other tissues deemed appropriate will be retained at the time

of the examination. The source and quantity of tissue retained is determined by the Attending medical examiner.

1.1.1.1. Wet tissue retention is initiated on the date of the autopsy examination.

1.1.1.1.1. All tissue not retained at OCME at the time of examination shall be returned to the decedent's body cavity following examination by the Mortuary Unit staff.

1.1.2. Representative sections of organs and tissues are generally retained by the Attending medical examiner in stock jars containing formalin, so that histological preparations or other tests may be performed, when necessary, for determination of cause and manner of death. They can also be used as quality control for the Histology Laboratory.

1.1.2.1. Formalin fixed wet tissue is stored at room temperature in the designated specimen storage rooms in the Mortuary Unit.

1.1.3. Formalin fixed tissue sections shall be retained in the Mortuary Unit for 3 years for the following manners of death: [See SOP Reports and Records Retention Schedule].

1.1.3.1. Accident
1.1.3.2. Natural
1.1.3.3. Suicide

1.1.4. Formalin fixed tissue sections shall be retained in the Mortuary Unit for 5 years for the following manners of death: [See SOP Reports and Records Retention Schedule].

1.1.4.1. Homicides
1.1.4.2. Undetermined
1.1.4.3. Infant Deaths (≤ 1 year old)

1.1.5. Histological preparations of formalin fixed tissue affixed to microscopic slides and embedded in paraffin blocks shall be retained indefinitely in the Mortuary Unit as referenced in the SOP Reports and Records Retention Schedule.

1.1.6. Whole organs (e.g. Heart, Lungs, Eyes, Brain) stored post autopsy examination for gross review by the Attending medical examiner or consultant shall be retained in the stock jar by the Attending medical examiner.

1.1.6.1. After the recommended fixation period and gross examination by the Attending medical examiner or consultant, representative sections of the formalin fixed whole organs may be retained by

Attending medical examiner in a separate stock jar containing fixative solution (e.g. 10% or 20% buffered formalin) for the 3-5 year retention period; depending on the nature of the case as referenced in Section 1.

1.1.6.1.1. For further gross review following consultation, the Attending medical examiner may request for the whole organ tissue to be retained in addition to the stock jar with tissue sections for the 3-5 year retention period; depending on the nature of the case as referenced in Section 1.

1.1.6.1.2. The duration of time for whole organ tissue fixation shall be determined by the Attending medical Examiner or consultant prior to gross examination.

1.1.6.1.2.1. As recommended by the Attending medical examiner or consultant, the whole organ brain tissue may be fixed in 20% formalin for 1-2 weeks prior to gross examination;

1.1.6.1.2.2. As recommended by the Attending medical examiner or consultant, the whole organ heart, lung, and eye tissue may be fixed in 10% formalin for 1 week prior to gross examination.

1.1.6.1.2. The retention of whole organs and tissue sections reviewed by the Attending medical examiner or consultant post autopsy examination corresponds to the date that the case was initially examined by the Attending medical examiner.

1.1.7. At times wet tissue may be returned to OCME if not harvested during tissue donation process or following gross review by consultant.

1.1.7.1. Whole organs or tissue sections to be returned to OCME following tissue donation and consultation shall be retained post examination in a stock jar containing formalin in the Mortuary Unit for a 3-5 year period, depending on the nature of the case as referenced in Section 1.

1.1.7.2. On occasion, formalin fixed tissue sections histologically prepared on microscopic slides and embedded in paraffin blocks may be returned to OCME following consultation. The microscopic slides and paraffin blocks shall be retained indefinitely in the Mortuary Unit as referenced in the SOP Reports and Records Retention Schedule.

1.1.7.3. The retention of whole organs and tissue received post autopsy examination corresponds to the date that the case was initially examined by the Attending medical examiner.

1.1.8. Whole organs (e.g. Brain) saved for research following the autopsy examination shall be retained in the Mortuary Unit on wet ice or in refrigerated storage for immediate transfer to requestor by Mortuary Unit staff.

1.1.8.1. It is the policy of the DC OCME not to provide tissues or organs for research without the expressed consent of the next of kin. Written permission of next of kin is required and should be documented before any tissue, body fluid and organ or portion thereof, are donated to any educational or research institution. It will be the responsibility of the research entity to approach and obtain properly signed consent from the next of kin prior to this office releasing such tissues to them.

1.1.8.2. Whole organ tissue that will be transferred for research shall be documented on the chain of custody form and documented in the corresponding tracking file.

1.1.8.2.2. The chain of custody form shall be completed by the Mortuary Unit staff; dated and signed by Attending medical examiner, Mortuary Unit staff and representative receiving the tissue.

1.1.8.2.2.1. The chain of custody form is available in Qualtrax.

1.1.8.2.2.2. The completed chain of custody form shall be placed in case file or Records Management. Copy of the chain of custody form shall be 'COPY' stamped and placed in Mortuary Unit file by Mortuary Unit staff for archiving.

1.1.8.2.3. Transfer of the whole organ wet tissue for donation shall be updated on the Specimen tracking file by the Mortuary Unit staff. The tracking file is located on the OCME server.

2. Wet Tissue Labeling, Storage, and Documentation

2.1. The stock jars containing whole organs and tissue sections from autopsy examination, tissue donation, or consultation shall be received by the Mortuary unit staff and retained in specimen storage rooms in the Mortuary unit for a 3-5 year period, depending on the nature of the case (See Section 1.3.1 and 1.3.2).

2.1.6. Stock jars of wet tissue shall be inventoried and storage location documented by the Mortuary Unit staff on the Specimen tracking file. The tracking file is accessible on the OCME server.

2.1.6.1. Stock jars of wet tissue shall be filed by the Mortuary Unit staff in the specimen storage room in numerical order, by year and OCME case number.

2.2. Stock jars containing whole organs and tissue sections retained for storage shall be labeled by the Attending medical examiner or Mortuary Unit staff to include:

2.2.6. Label from CMS with OCME Case Number, Decedent's Name (First and Last), Initials of the Attending medical examiner, Date of Wet Tissue Collection, and Wet Tissue Source.

2.2.7. Handwritten Label with OCME Case Number, Initials of the Attending medical examiner, Date of Wet Tissue Collection, and Wet Tissue Source.

2.2.8. Label with Description of the Type of Fixative (e.g. 10% Formalin, 20% Formalin) and Bio-hazardous Symbol.

3. **Wet Tissue Disposal and Documentation**

3.1. At the discretion of the Attending medical examiner following examination, whole organ tissue or tissue sections shall be retained for long term storage in a stock jar as referenced in sections 1. and 2., or discarded as 'medical waste' following the 3-5 year retention period depending on the nature of the case (See Section 1.3.1 and 1.3.2).

3.1.1. As determined by the Attending medical examiner, the whole organs and tissue sections retained in a stock jar shall be disposed of by the Mortuary Unit staff.

3.1.1.1. The Attending medical examiner shall be notified by the Mortuary Unit staff for authorization to discard wet tissue prior to the final disposition of all cases.

3.1.2. Wet tissue disposed of shall be documented in the CMS as 'Bio-hazardous', and in the electronic Specimen Tracking File by Mortuary Unit Staff.

3.1.2.1. The following fields shall be documented in CMS by the Mortuary Unit staff after the wet tissue has been discarded:

3.1.2.1.1. In the Chain of Custody/Release Module:

3.1.2.1.1.1. 'Stock Jar' in the 'Item' field;

3.1.2.1.1.2. 'Wet Tissue Specimen' in the 'Description' field;

3.1.2.1.1.3. 'Quantity' of Stock Jars Discarded;

3.1.2.1.1.4. 'Bio-hazardous' in the 'Property Type' field;

3.1.2.1.1.5. 'Bio-hazardous Waste' in the 'Released To field';

3.1.2.1.1.6. 'Released By' field,

3.1.2.1.1.7. 'Release Date and Time' field; and

3.1.2.1.1.8. Check the 'Released' field.

3.1.2.1.2. In the Body Release Module:

3.1.2.1.2.1. Check the 'Medical Waste'field;

3.1.2.1.2.2. 'Date and Time of the Release'; and

3.1.2.1.2.3. and 'Released By' field';

3.1.2.2. The Specimen Tracking file is accessible from the OCME server.

3.1.3. The Mortuary Unit staff shall print the Bio-hazardous Disposal Form from CMS.

3.1.3.1. The Bio-hazardous Disposal form shall be dated and signed by the Attending Medical examiner and the Mortuary Unit staff as the disposing representative.

3.1.3.1.1. In the instance that the Attending medical examiner is not available, the Deputy Chief Medical Examiner should be notified and presented with the form for signature.

3.1.3.2. The completed Bio-hazardous Disposal form shall be placed in the case file or Records Management unit following peer review.

3.1.4. Stock jars of wet tissue to be removed from specimen storage rooms shall be documented by Mortuary Unit staff in the electronic Specimen tracking file.

3.1.4.1.The Specimen Tracking file is accessible from the OCME server.

3.2. Disposal of tissue shall be completed in accordance with the Safety Procedures and use of the following PPE:
- 3.2.1. PAPR
- 3.2.2. Gowns/Aprons
- 3.2.3. Gloves
- 3.2.4. Shoe Covers
- 3.2.5. Faceshield/Goggles
- 3.2.6. Chemical Dosimeter, if available.

3.3. Stock jars containing formalin with wet tissue shall be discarded in 55 gallon formalin and wet tissue waste drum.

3.3.1. Formalin and wet tissue waste drums (55 gallon) shall be labeled with the contents of waste, initial date of waste collection, final date of waste collection, and safety signs describing the contents of bio-hazardous waste with symbol.

3.4. When formalin and wet tissue waste drums (55 gallon) are unavailable, the formalin waste shall be decanted out of stock jar under a fume hood using a siphon pump into the 30 gallon formalin waste drum.
- 3.4.1. Stock jars with retained wet tissue shall be placed in the bio-hazardous lined box and coated with Spill-X absorbent neutralizer.
- 3.4.2. Formalin waste drums (30 gallon) shall be labeled with the contents of waste, initial date of waste collection, final date of waste collection, and safety signs describing the contents of bio-hazardous waste with symbol.

3.5. Formalin waste drums shall be secured with cap when not in use.

3.6. Formalin waste and discarded wet tissue are only removed from OCME by authorized contractor to handle bio-hazardous materials.

4. Tissue and Body Fluid Specimen Retention Post-Autopsy Examination, Consultation, and Organ Donation

4.1. At the discretion of the Attending medical examiner, biological specimens (e.g. Blood, Urine, Bile, Gastric, Vitrious, Wet Tissue Sections) may be retained at the time of the autopsy examination at OCME for the purposes of archiving, consultation/testing services, and organ/specimen donation.

4.1.1. At the time of the examination, biological specimens may be transferred to the OCME Toxicology Laboratory for testing.

4.1.1.1. Biological specimen retention in the OCME Toxicology Laboratory corresponds to the schedule referenced in the Records and Retention SOP.

4.1.2. Biological specimens not transferred to OCME Toxicology Laboratory at the time of examination may be retained for short term archiving in the Mortuary Unit specimen refrigerator or freezer.

4.1.2.1. As determined by the Attending medical examiner, biological specimens collected at the time of examination may be retained for temporary storage prior to transfer to the consultant or reference laboratory as referenced in the Microbiology SOP; or following receipt at OCME from hospital facilities or consultants post examination.

4.1.2.1.1. The Mortuary Unit staff shall inform the Attending medical examiner immediately of biological specimens received following consultation, organ donation, or receipt from hospital facilities.

4.1.2.1.2. The Attending medical examiner shall inform the Mortuary Unit staff of recommendation to forward biological specimens to consultant or reference laboratory for external testing.

4.1.2.2. Biological specimens shall be retained in the specimen refrigerator or freezer in the Mortuary Unit for a 1 year period.

4.1.2.3. The retention of biological specimen collected at OCME is initiated on the date of the autopsy examination.

4.1.2.3.1. The retention of biological specimens received post examination from hospital facilities or consultants corresponds to the date that the case was initially examined by the Attending medical examiner.

5. Tissue and Body Fluid Specimen Labeling and Storage Post-Autopsy Examination, Consultation, and Organ Donation

5.1. Specimen tubes and vials containing biological specimens shall be labeled by the Attending medical examiner or Mortuary Unit staff to include:

5.1.1. CMS Label with OCME Case Number, Decedent's Name, Initials of the Attending medical examiner, Date of Biological Specimen Collection, Date Specimen Received, and Specimen Source.

5.2. Labeled biological specimens shall be placed in biohazard specimen bag with affixed CMS label and submitted to specimen refrigerator or freezer by Mortuary Unit staff or Attending medical examiner.

5.2.1. CMS label on biohazard specimen bag shall include the OCME Case Number, Decedent's Name, Initials of the Assigned medical examiner, Date of Biological Specimen Collection, Date Specimen Received, and Specimen Source.

5.2.2. Biological specimens shall be placed in refrigerator or freezer storage location and documented by Mortuary Unit staff or Attending medical examiner in the Biological Specimen tracking log book, and electronic tracking file.

6. Tissue and Body Fluid Specimen Disposal and Documentation

6.1. The biological specimens shall be submitted to the OCME toxicology unit, consultants, reference laboratories; or discarded as 'medical waste' by the Mortuary Unit staff.

6.2. At the discretion of the Attending medical examiner, the biological specimens retained in refrigerator or freezer storage in the Mortuary Unit shall be disposed within 1 year following the autopsy examination.

6.3. The Attending medical examiner shall be notified by the Mortuary Unit staff prior to the final disposition of all biological specimens after a 1 year period of storage.

6.4. Biological Specimens shall be discarded in the sharps container for glass collection tubes.

6.5. Biological Specimens shall be discarded in the bio-hazardous lined box for shatter resistant cups and containers.

6.6. Biological specimens disposed of shall be documented in the CMS as 'Bio-hazardous, and in the electronic Specimen Tracking File by Mortuary Unit Staff.

6.6.1. The following fields shall be documented in CMS by the Mortuary Unit staff after the biological specimens have been discarded:

6.6.1.1. In the Chain of Custody/Release Module:

6.6.1.2.'Biological Specimen' in the 'Item' field;

6.6.1.3.'Source of Fluid/Tissue Specimen' in the 'Description' field;

6.6.1.4.'Quantity' of Specimen Tubes and Vials' Discarded;

6.6.1.5.'Bio-hazardous' in the 'Property Type' field;

6.6.1.6.'Bio-hazardous Waste' in the 'Released To field';

6.6.1.7. 'Released By' field,

6.6.1.8. 'Release Date and Time' field; and

6.6.1.9. Check the 'Released' field.

6.6.1.10. In the Body Release Module:

6.6.1.11. Check the 'Medical Waste'field;
6.6.1.12. 'Date and Time of the Release'; and
6.6.1.13. and 'Released By' field';
6.6.2. The Specimen Tracking file is accessible from the OCME server.
6.6.3. The Mortuary Unit staff shall print the Bio-hazardous Disposal Form from CMS.
6.6.3.1. The Bio-hazardous Disposal form shall be dated and signed by the Attending Medical examiner and the Mortuary Unit staff as the disposing representative.
6.6.3.1.1. In the instance that the Attending medical examiner is not available, the Deputy Chief Medical Examiner should be notified and presented with the form for signature.

6.6.3.2. The completed Bio-hazardous Disposal form shall be placed in the case file or Records Management unit following peer review.

6.7. Biological specimens to be removed from refrigerator or freezer for disposal shall be documented by mortuary staff or Pathologist in the Biological Specimen Tracking Log Book, and the electronic Specimen tracking file.
6.7.1. Biological specimens to be removed from refrigerator or freezer for transfer to OCME Toxicology Laboratory shall be documented by Toxicology representative in the Biological Specimen Tracking log book.
6.7.2. Biological specimens to be removed from refrigerator or freezer for transfer to consultant and reference laboratories shall be documented by the Mortuary Unit staff in the Biological Specimen Tracking Log Book and electronic Specimen Tracking file.
6.7.2.1. Chain of custody form shall be completed by Attending medical examiner, Mortuary Unit staff, and consultant/reference laboratory representative. The chain of custody form is available in CMS, Quatrax ,or OCME server.
6.7.2.2. Completed Chain of Custody forms shall be placed in case file or Records Management office by Mortuary Unit staff following peer review.

7. Anthropological Samples

7.1. At the time of the autopsy examination, the Attending medical examiner may retain bone and cartilage for anthropological analysis.
7.1.1. Bone and Cartilage Specimens shall be placed in a container labeled with the case CMS label.
7.1.2. Bone and Cartilage Specimen shall be transferred to the anthropologist for analysis.

7.1.3. The anthropologist shall retain the bone and cartilage specimen for five (5) years after the date of death. After five (5) years the specimen shall be discarded as medical waste.

7.1.4. Receipt and discarding of bone and cartilage specimens shall be documented in the Anthropology Specimen Logbook by the anthropologist.

8. NON-FTA Card DNA Specimens

8.1. At the time of the autopsy examination, the Attending medical examiner may retain bone and/or teeth for the purpose of DNA analysis. Typically, bone and/or teeth are retained when a blood sample is unavailable usually due to decomposition. When blood is retained follow SOP: Blood Stain Card.

8.1.1. The FTA Blood Standard cards are collected at the time of examination by the Attending medical examiner or Mortuary Unit staff.

8.1.2. When possible, two FTA Blood Standard cards are collected and stored indefinitely for OCME retention in the Anthropology Laboratory as referenced in the DNA Blood Standard Card SOP.

8.2. The bone and/or teeth shall be placed in a specimen container labeled with the CMS case number and transferred to the anthropologist.

8.2.1. The anthropologist shall ship the specimen to an accredited DNA laboratory for analysis.

8.2.2. Bone, teeth and/or DNA extractions returned to the OCME from the DNA laboratory shall be retained following the retention schedule listed in 1.2.1 and 1.2.2.

8.2.3. Bone, teeth and/or DNA extractions shall be discarded as medical waste.

8.2.4. The receipt, submission, return and discard of DNA specimens shall be documented in the DNA Logbook.

9. Quality Assurance/Quality Control

9.1. The wet tissue stock jars and biological specimen containers (e.g. tubes, vials, etc.) prepared for storage and retention following autopsy examination shall be peer reviewed by the Mortuary Unit staff immediately after examination.

9.1.1. The CMS and handwritten labels on the wet tissue stock jars and biological specimen tubes/containers shall be cross referenced in CMS by Mortuary Unit staff or Attending medical examiner for the following:

9.1.1.1. OCME Case Number; Decedent's Name, Age, Race, Sex; Decedents Medical Record Number; Decedents Date of Birth; Initials of the Attending medical examiner, Date of Examination, and Source of Specimen.

9.1.2. The Post Mortem Checklist and Competency Form shall be completed by the Mortuary Unit staff to document compliance for the peer review. The Mortuary Unit staff shall immediately notify Mortuary Supervisor when discrepancies are noted.

9.1.2.1. The Post Mortem Checklist and Competency form may be accessed by Mortuary Unit staff via Qualtrax.

9.2. For biological specimens retained following consultation, organ donation, and receipt from hospital facilities, the CMS label shall be crossed referenced with the facility label on the tube or container by Mortuary Unit staff or Attending medical examiner for the following:

9.2.1. Decedent's Name, Age, Race, Sex.

9.3. Documentation of wet tissue and biological specimen storage in the Specimen tracking log books and electronic Specimen tracking file shall be cross referenced with the CMS label on the stock jar and tubes/containers by Mortuary Unit staff or Attending medical examiner for the following:

9.3.1. OCME Case Number, Decedent's Name, Attending medical examiner, Assigned Mortuary staff, Date of Examination or Receipt, Date of Storage, and Specimen Source.

9.4. Documentation of the disposal of wet tissue and biological specimens in the Specimen tracking log books, electronic Specimen tracking file, and on Bio-hazardous Disposal form shall be cross referenced with the CMS label on the stock jar and tubes/containers by Attending medical examiner, or Mortuary Unit staff for the following:

9.4.1. OCME Case Number; Decedent's Name, Age, Race, Sex; Attending medical examiner; Assigned Mortuary staff; Date of Examination or Receipt; Date of Disposal; and Specimen Source.

9.5. The Bio-hazardous Disposal form shall be placed in the correct case file by the Mortuary Unit staff or Attending medical examiner by cross referencing the OCME case number on the form with the OCME case number listed on the case file.

9.6. The Post Mortem Checklist and Competency Form shall be completed by the Mortuary Unit staff to document compliance for the peer review. The Mortuary Unit staff shall immediately notify Mortuary Supervisor when discrepancies are noted.

9.6.1. The Post Mortem Checklist and Competency form may be accessed by Mortuary Unit staff via Qualtrax.