Policy Title: STORAGE RETENTION AND DISPOSAL OF ITEMS OF EVIDENCE, BODY FLUIDS, AND TISSUES REMOVED AT AUTOPSY

Policy:

Particular items of evidence are stored at the Medical Examiner's Office. In like fashion, body fluids and tissue biopsies removed at autopsy are retained and stored at the Medical Examiner's facility. These items shall be saved in a fashion consistent with the sound practice of Forensic Pathology (i.e. blood and other body fluids shall be stored under recommended conditions).

All evidence items (such as ligatures and bone fragments) stored at the Medical Examiner's facility should be readily accessible. Items that are retained in evidence shall be separately logged and stored in Evidence Storage Room 143, as non-biologic items of evidence typically are not saved during the course of a routine autopsy, but instead are usually submitted directly to the responsible law enforcement agency. Because there are practical limitations in any Forensic Pathology facility, items retained at autopsy shall be discarded at intervals so dictated by storage limitations, yet still in keeping with or exceeding practice standards.

Because of legal authorization via State statute and sensitivity to family needs, next-of-kin will not be notified of retention or disposition of body tissues or organs. If organs are retained at autopsy, this is so noted in the dictated autopsy report.

Notice

Specimens and samples will be collected during postmortem examinations as outlined below, to the extent allowed by the condition of the remains, and with consideration given to the length of hospitalization in applicable cases. The extent of sample and specimen collections for any given case may be reduced when the human remains are decomposed, or the deceased was hospitalized prior to death and there was in-hospital survival for twenty-four hours or more.

Samples and specimens will be stored for the periods outlined below and then will undergo biohazard disposal at the next available opportunity based on available staff and current caseload.
Storage Retention and Disposal
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The Medical Examiner’s Office (MEO) will not hold samples or specimens for other agencies or individuals beyond the medical examiner’s retention period. Agencies or individuals wanting longer-term holding of samples or specimens must make their own arrangements for storage, entirely separate from the MEO, and need to contact the MEO well before the MEO retention period ends. Proper authorization is needed prior to release of any sample or specimen. For samples or specimens released to other agencies or individuals, written Chain-of-Evidence documentation is required.

Appropriate Labeling of Specimens:

All specimens and items of evidence are to be labeled with a decedent case sticker. This is to include the Medical Examiner’s case number, name of the decedent (or unidentified denotation), date of collection, source of the evidence or specimen, initials of the person who collected this item, and the autopsy physician’s initials. Items of evidence are documented by check box or description on the "Evidence Collection/Transfer" form. Alternatively, items such as ligatures or bullets from suicides can be documented individually on the "Specimen" form.

Blood Cards:

- Blood placed on filter paper cards is susceptible to bacterial contamination and breakdown. Therefore, these cards shall be prepared, dried, and individually labeled with a decedent’s sticker, then sealed in an appropriately labeled envelope (name, case#, date, description, etc.), sealed with evidence tape and retained in numerical order in a freezer in Refrigerator Room 133.

Because of the potential importance of DNA for identification, and because of the small size and space requirements of the cards, blood cards will be retained indefinitely in the Medical Examiner’s Office. They are routinely acquired at the autopsy and do not need to be individually logged into the storage space. The autopsy specimen worksheet box “blood card” is to be checked for recording that a card was made.

When a request is made, with proper authorization, for the release of a blood card sample, the card can be reasonably divided, with both portions appropriately labeled. This allows the Medical Examiner’s office to retain a portion of the sample.

Fingerprint Cards

- Fingerprint cards are to be taken at (ten prints) at the time of postmortem examination (external examination, autopsy, or the processing of an unclaimed body (no-nexxt-of-kin case) with rare exceptions (i.e. inability to obtain fingerprints), and will be labeled directly with the decedent sticker then sealed in appropriately labeled envelopes (name, case #, date, description, etc.), sealed with evidence tape and retained in sequential order. Additional fingerprints (e.g.
ten print cards -all ten fingers) and/or palm prints may be taken in certain cases at the direction of the forensic pathologist or at the request of law enforcement or a referring coroner. The fingerprint box will be checked on the autopsy specimen worksheet.

If the decedent's fingerprints are already on file at the Forensic Unit, the fingerprints will be transferred to the Forensic Unit for comparison. The decedent's fingerprint card(s) is placed in a plastic zipper-sealed storage bag and transferred to the Forensic Unit of the Spokane County Sheriff's Department. The fingerprint cards will be examined, processed, and copied by the Forensic Unit.

Digital photographs/images of fingerprints (digital photos taken of the fingerprint card or a finger directly or other print visualization method) may be obtained in cases where individual identity of the decedent needs to be established or confirmed by fingerprint comparisons. The digital images may be submitted to the Forensic Unit for comparison via the internet (e-mail). When obtained, copies of the images (jpeg files) of the fingerprints are to be uploaded to the decedent's images file in the database (MedTrack).

Personnel of the Forensic Unit of the Spokane County Sheriff's Department will themselves obtain finger and palm prints directly from the body of the deceased in certain cases of interest and concern to law enforcement (typically major crime cases). The Forensic Unit has indicated that fingerprint records that are related to a criminal case are held by them indefinitely.

As of January 1, 2014, following processing by the Forensic Unit, the fingerprint cards were routinely (except as described in the paragraph directly above) returned to the Medical Examiner's for placement in the corresponding case files and subsequent archiving/scanning with other medical examiner case documents. Beginning August 2016, the Forensic Unit reversed the above practice and are currently keeping fingerprint cards.

**Hair Samples**

- Hair samples are of potential utility, both for identification purposes, and for drug testing. It is anticipated that their usefulness for determining past drug use will increase in the future. Hair samples are taken in homicide cases, suspicious deaths and unidentified cases or at the direction of the pathologist. If intended for drug testing a quantity should be collected that when bundled parallel to one another equals or exceeds the diameter of a pencil. Retained hair samples are to be held in the evidence room.
Formalin-Fixed Biopsy Tissue

- Biopsy tissue samples are sealed in zipper-sealed plastic storage bags, appropriately labeled (name, case #, date, etc.), and sequentially stored in plastic tubs. The bags are retained by year in Tissue Storage Room 142 and are discarded after a period of three years. Tissues are routinely placed in formalin at autopsy and individual log accounting of cases is unnecessary. The autopsy report and specimen log sheet will denote “TISSUES RETAINED-TAKEN” (wet tissue). The discarded formalin-fixed tissues are destroyed as routine biohazard waste. (Incinerated)

Next-of-kin are not directly informed or notified about the retention of biopsy tissues. The notation that tissues are retained is made in the autopsy report. This is in accordance with State law, which allows for retention and disposal of the same when needed as part of examination. This office views any notification as insensitive and undesired.

Blocks and Slides

- All histology blocks shall be retained indefinitely.
- All microscopic and histology slides shall be retained indefinitely.

The slides and blocks are filed sequentially by year and case number in Slide and Block Room 158.

Frozen Blood / Liver / Gastric Material

- As available, one red-top plastic tube of blood is saved during each autopsy examination; these are stored in freezers in Refrigerator Room 133. In addition, one purple-top plastic tube is retained frozen for the possibility of genetic testing. Liver and gastric fluid specimens are placed in plastic containers, and/or zipper-sealed plastic storage bags, and appropriately labeled (as per policy above). The autopsy specimen log sheet is marked appropriately to denote that these items have been saved. The items are not individually logged into the freezers as they are “routinely” taken unless so noted on the autopsy specimen sheet.

The frozen blood samples in plastic tubes are retained for a period of three years, and are sequentially stored. The liver samples are retained frozen for 6 months. Gastric material collected and frozen at the discretion of the pathologist will be discarded after 6 months.

These specimens, at the time of destruction, are placed in red BIOHAZARD bags, and removed from the facility with the biohazard material (for incineration). Any other items retained and stored for any reason in the freezers are noted on the Freezer Log.
Ligatures and Physical Items

Ligatures and other physical items, including bullets in evidence room or freezer, removed at autopsy that have evidentiary value are appropriately labeled in zipper-sealed plastic storage bags or other suitable containers with case #, name, etc., and stored in Evidence Storage Room 143.

When items have been retained for one year, they will be destroyed unless claimed by an investigating agency. If items are claimed by the investigating agency, a Chain-of-Evidence form will be completed and placed in the permanent case file.

Blood / Urine / Vitreous

- These specimens, if available at autopsy, are gathered, appropriately labeled, and are stored in racks in a refrigerator in Refrigerator Room 133 in order by number and date. The autopsy specimen sheet is to be marked in the check boxes to denote that these body fluids were obtained. Samples not submitted for testing are destroyed, after being held for 6-month intervals, as biohazard material.

X-rays

- Radiologic images (digital X-ray images) are taken in-house by Medical Investigators, Autopsy Assistants, or medical Examiners using the LODOX body scanner, the portable X-ray unit, or the dental X-ray unit. The LODOX and portable digital x-ray images are to be uploaded to the Inland Imaging database/PACS system for storage and access by computer. The Spokane County Medical Examiner's Office has access to these files by way of a secure password-based system. The files can be accessed in the morgue at any time, including during autopsy; they can also be accessed from the administrative offices (also see separate X-ray Examination policy). All Medical Examiner hard copy x-ray films obtained in the past have been digitalized for storage in the Inland Imaging database. Copies of the images (jpeg versions) are to be added to and stored in the decedent's individual images file in the database (MedTrack).

Digital dental X-ray images are to be placed in and stored with other case-related images in the decedent's individual images file in the database (MedTrack), and are also stored on the digital dental x-ray laptop. No hard copies are retained.

Other Items

- Occasionally other items are retained from autopsy. These articles include such things as clothing, teeth, soft tissues, and bones. They are saved for a variety of reasons such as evidentiary value, lack of identification, unclear nature of injury, and because some skeletal remains are so-called "trophy skulls," not Native American in origin.
It is essential to have a full listing of all such items retained at the Medical Examiner’s facility for any reason whatsoever. To that end, the items are individually packaged, and labeled (case #, date, name [if known], and description). Care is taken that such items will retain their labeling despite what may be the passage of considerable time. They are stored in Tissue Storage Room 142, Evidence Storage room 143, or in a freezer in Refrigerator Room 133, as appropriate. The autopsy specimen sheet is to be completed with a hand-written entry of what was retained.

**Items on Hold by Pathologist**

- Occasionally other items (or specimens/samples) are retained from autopsy with pathologist direction to hold until approval is given by the pathologist for release or disposal (placed on indefinite hold). When the pathologist identifies such an item, the pathologist shall verbally inform the autopsy assistant(s), make a written record of the request on the specimen sheet, including printed name of the pathologist, signature, date, and description of the item. An autopsy assistant shall arrange for the long-term hold, marking and/or moving specimens/items as needed, and will enter a note in the database indicating that this has been done. A photocopy of the completed specimen sheet is to be made. The original specimen sheet is to be placed in the case file. The photocopy of the specimen sheet is to be placed in a binder and held separately at the Medical Examiner’s facility (serves as the log book of the indefinitely-held items inventory). When the pathologist determines that the item may either be released or disposed of (the decision may be made at any time on a case-by-case basis), the pathologist is to indicate approval for release or disposal on the photocopy of the specimen sheet with signature and date, and verbally direct the autopsy assistant(s) to release or dispose of the item. If released, a Chain-of-Evidence form is to be completed and placed in the case file. The specimen sheet, after signed for approval to release or dispose, is to be placed in the case file.

In January of each year, the pathologists and autopsy assistants together are to review the inventory of indefinitely-held items.

**Retention and Examination of Body Organs:**

Rarely whole organs removed at autopsy, typically the brain and/or heart, are retained for examination. State statutes (RCW 68.50.106) allow Medical Examiners to retain and dispose of body organs when needed for examination. Partly because of this statute, and partly because of the complexity and sensitivity of many issues surrounding retention of organs, next-of-kin is not notified directly or individually regarding the retention/disposition of such organs. The autopsy report and specimen sheet must document retention of any body organs. When solid organs are retained they are immediately placed in formalin for fixation, unless anticipated study of such organs indicates that such fixation is not appropriate. These organs will eventually be disposed of routinely with autopsy wet tissue.
Formalin Fixed Whole Organs (Brains, Hearts, etc.)

- Formalin-fixed brains and hearts may be examined after fixation, or sent by mail or courier to a consulting neuropathologist or cardiac pathologist with appropriate Chain-of-Evidence documentation. These brains and hearts are typically disposed of by the receiving institute using their protocol. (If returned to the Spokane County Medical Examiner Office they are combined/held with wet tissue and disposed of 3 years after the autopsy.)

Discarding of Sample, Specimens, Tissues, Organs and other items described in this policy:

- Each month, or as soon thereafter as feasible, specimens shall be disposed of according to policy and as summarized in the attached retention schedule.

- Items for disposal are to be placed in appropriate biohazard disposal bins in the Medical Examiner's facility until removal by contracted agents:
  
  **Clean Harbors** for formalin fixed tissue and chemicals.
  
  **Waste Management** for biohazard materials, non-formalin fixed tissues, and bones

Quality Assurance for Medical Examiner's Facility Storage Areas:

**Autopsy Room Freezer/Storage Room Freezer**

- The freezers should be maintained below 20°F. Each freezer is to be equipped and maintained with a continuous digital temperature, to be monitored daily. Every workday a reading of each "Storage Room Freezer" by number, is to be recorded on a log sheet kept in Refrigerator Room 133.

**Wet Tissue Room**

- The ventilation in the Tissue Storage Room is designed to minimize the odor and effects of formalin vapors within the room. At yearly intervals, the room shall be examined for the presence of formalin vapors and the results recorded on a log sheet.

**Walk-in Refrigerated Body Coolers**

- The walk-in body coolers (main body cooler and the separate decomposed body cooler) should be kept at 33-38°F. Every workday, the temperature in the walk-in refrigerator is to be checked and recorded on a log sheet kept at the workstation counter in the main autopsy area corridor.
Storage Room Refrigerator

- The temperature in the sample/specimen refrigerator should be maintained at 33-37°F. Each workday, the temperature is to be checked and recorded on the log sheet kept in Refrigerator Room 133.

Log Sheets

- All log sheets referenced in the sections above are to be held for 5 years in the Medical Examiner’s facility and then destroyed.

Weight Scales

- The in-floor body scale, the hanging pan organ scales, and the pediatric organ scales are to be calibrated every 2 years by and certified by written sticker.

Body Fluid/Organs, Evidence Retention Summary Chart

<table>
<thead>
<tr>
<th>6 Months</th>
<th>Refrigerated - blood, urine, vitreous Frozen – gastric Frozen – liver</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Year</td>
<td>Bullets Ligatures Other items of evidence Hair</td>
</tr>
<tr>
<td>3 Years</td>
<td>Frozen – red top Frozen – purple top</td>
</tr>
<tr>
<td>3 Years</td>
<td>Formalin fixed tissue including whole organs fixed in formalin</td>
</tr>
<tr>
<td>Indefinite</td>
<td>Histology blocks</td>
</tr>
<tr>
<td>(Formerly 10 years – updated 2/20/15)</td>
<td></td>
</tr>
<tr>
<td>Indefinite</td>
<td>Microscopic slides</td>
</tr>
<tr>
<td>(Formerly 20 years – updated 6/21/12)</td>
<td></td>
</tr>
<tr>
<td>Indefinite or Archive</td>
<td>Fingerprint cards Blood cards</td>
</tr>
</tbody>
</table>
References:

1. RCW 68.50.106

In any case in which an autopsy or postmortem is performed, the coroner or medical examiner, upon his or her own authority or upon the request of the prosecuting attorney or other law enforcement agency having jurisdiction, may make or cause to be made an analysis of the stomach contents, blood, or organs, or tissues of a deceased person and secure professional opinions thereon and retain or dispose of any specimens or organs of the deceased which in his or her discretion are desirable or needful for anatomic, bacteriological, chemical, or toxicological examination or upon lawful request are needed or desired for evidence to be presented in court. Costs shall be borne by the county.

[1993 c 228 § 19; 1987 c 331 § 59; 1975-’76 2nd ex.s. c 28 § 1; 1953 c 188 § 10. Formerly RCW 68.08.106.]

2. National Association of Medical Examiners (NAME) Forensic Autopsy Performance Standards and Office Accreditation Standards (NAME Inspection and Accreditation Checklist)

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