

FORENSIC BIOLOGY EVIDENCE AND CASE MANAGEMENT MANUAL

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Evidence Control

GUIDING PRINCIPLES AND SCOPE

The appropriate tracking and storage of evidence and work product is critical for ensuring that the value of the Department's testing results is not compromised. Chain-of-custody refers to the documentation that tracks the receipt of evidence (either post-mortem autopsy specimens or physical evidence obtained through investigations), through the analytical process, until it leaves the control of the laboratory. Unique identifiers on evidence items ensure that chain of custody records and examination records can be associated with the correct evidence.

The laboratory receives evidence primarily from the OCME Evidence Unit. "Evidence" is equivalent to a "test item". The Evidence Unit assigns a number (EU number) to the evidence and stores it under lock and key. Only Evidence Unit personnel have access to these locations.

The NYPD and other agencies and jurisdictions may bring evidence directly to the laboratory. Evidence from the OCME is received from all of the OCME locations via the Evidence Unit. At the conclusion of the scientific testing, the NYPD evidence is usually returned to the Evidence Unit and other evidence is returned directly to the submitting agency.

The Department of Forensic Biology defines "work product" as information or samples generated during the course of a scientific examination of evidence, such as graphs, photographs, extracted DNA, amplified DNA, electropherograms, or stained slides prepared from sample extracts.

PROCEDURE

A. Case numbers

Case numbers are discussed in the **Case Acceptance and** Evidence Sign-In procedure.

B. Evidence Item and Sample Identifiers

Each evidence item and sample from the evidence **must** be given a unique identifying number, clearly shown in the notes. A standard approach should be taken. The sections below describe the evidence and sample identification system implemented within the Laboratory Information Management System (LIMS).

1. An "item" refers to a single piece of evidence received by the laboratory.

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a. **Vouchered evidence.** Primary evidence items are named as follows:

(FB#)_(last 3 digits of voucher)_(item#)_(short description ≤ 6 characters)

For example, FB11-00123_546_1_Hat

(Note: the short description for the evidence item can be changed by the analyst upon examination)

b. **Postmortem (non-vouchered) evidence.**

(FB#)_PM_(item #)_(short description ≤ 6 characters)

FB12-00009_PM_1_bone

c. **Subitems.** Occasionally, what is submitted as one item actually consists of more than one item. In these situations a “sub-item” number is incorporated into the item numbering format. For example:

(FB#)_(last 3 digits of voucher)_(item#).(subitem#)_(short description)

Two socks listed as Item 2 are itemized individually as 2.1 and 2.2. The evidence items will therefore be named as follows:

FB11-00123_546_2.1_sock and FB11-00123_546_2.2_sock

d. **Other** (proficiency tests)

Internal cases, such as proficiency tests, do not use a voucher so the OCME ID format is slightly different. The format is:

(FB#)_(item#)_(short description)

The OCME ID makes use of the entire FB number and uses only the first 6 characters of the item description. The item number is whatever is listed at the time that the EU number is created.

2. A “sample” is a portion of the evidence item (or sub-item) from which material is Controlled versions of Department of Forensic Biology Manuals only exist in the Forensic Biology Qualtrax software. All printed versions are non-controlled copies.

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obtained that will be subjected to testing. An evidence item may have more than one sample. Evidence samples for vouchered evidence are named as follows:

(FB#)_(last 3 digits of voucher)_(item#)_(evidence sample#)_(short description ≤ 6 characters)

The area that is scraped will be considered as evidence sample 1 from the hat and will be named FB11-00123_546_1_1_Hat.

3. A “cutting” is that portion of the sample actually tested, for example the scrapings from an area on an article of clothing or a portion of a bloodstain sent for extraction.

(FB#)_(last 3 digits of voucher)_(item#)_(evidence sample#).(cutting#)_(short description ≤ 6 characters)

Therefore, the portion of the scrapings actually being sent for testing would be named FB11-00123_546_1_1.1_Hat.

4. Identifiers for cuttings and samples created for PM and internal cases will follow the same logic as for the vouchered evidence from external cases.

C. Evidence Seals

A **proper seal** is a seal that prevents loss, cross-transfer, or contamination of evidence while ensuring that attempted entry into the evidence container is detectable. Proper seals could include heat seals, tape seals, or a lock with the initials of the person creating the seal being placed on the seal or across the seal onto the container. **Staples alone are not a proper seal.**

The preferred type of proper seal used internally by the Department is a tape seal that bears the initials of the person who created the seal on the seal or across the seal and onto the container, and the date. **Staples alone are not an acceptable seal**, although they may be used in conjunction with tape to make it easier to apply a tape seal to a container.

If evidence that is received by Department does not have a proper seal, an Evidence Deficiency/Discrepancy must be completed and forwarded to a supervisor for approval. The condition of the seal is also recorded during the Evidence Packaging documentation process.

All evidence returned to the Evidence Unit must be properly sealed. Supplement improper original seals with a laboratory seal; however, preserve the original seals (including the initials of Controlled versions of Department of Forensic Biology Manuals only exist in the Forensic Biology Qualtrax software. All printed versions are non-controlled copies.

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the person who created the seal) as much as possible. If this is not possible, consult with a supervisor for the best course of action.

D. Evidence receipt

Most evidence is accepted into the OCME by the Evidence Unit and is assigned an Evidence Unit number. All evidence must be appropriately packaged as suitable for the item type when the laboratory receives it. In general, most evidence should be placed in breathable paper or Tyvek. Sometimes evidence may be received in foil or foil-like containers, cardboard boxes, or plastic containers. All evidence received in the laboratory must be properly sealed.

The paperwork transferred with the evidence is reviewed to ensure that the evidence belongs in the Forensic Biology Department. Generally, the following items are not accepted:

- (1) Items requiring fingerprint exams
- (2) Items intended for hair/fiber exams
- (3) Items intended for gunshot residue exams
- (4) Hair, fiber, or other trace evidence
- (5) Clothing from the deceased

Autopsy evidence sent from the OCME offices in Manhattan, Brooklyn, Queens, the Bronx, and Staten Island is received in sealed, plastic containers. Inside each container is a Transport Manifest that has a dated Transport Container Number. Pasted to the Transport Manifest are stickers with case numbers and/or bar codes for the specimens inside the container.

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E. Chain of Custody

Evidence is transferred from the Evidence Unit, where it is stored, to a member of the Forensic Biology Department. The chain-of-custody process records the transfer of evidence between individuals and/or between an individual and a storage location. All dates are recorded contemporaneously.

Transfers of evidence items are subject to full chain of custody requirements. The movement of evidence samples or work product may be tracked to a lesser degree, but these materials are not subject to full chain of custody requirements and do not use the chain of custody mechanisms described in the next paragraph.

Custody transfers of evidence are recorded using the chain of custody function in the LIMS application.

Instances arise that require the Department of Forensic Biology to send evidence to other agencies or laboratories. Under most circumstances this is accomplished using overnight mail services; the shipping paperwork is retained in the case record.

F. Sample witnessing in the laboratory

After samples are removed from the evidence, a witnessing procedure occurs at several points during the analysis to help ensure that testing is being performed on the correct sample. The witnessing step verifies that the sequence of tubes containing DNA or sample matches what is recorded on the applicable batch set-up: bloodstain preparation from whole bloods, DNA extraction, DNA quantitation, amplification set-up, and capillary set-up. The witness documents their witnessing activity in the LIMS.

G. Sample consumption

If possible, the entirety of an item or sample should not be consumed during analysis. It is recommended that at least 25% of the sample be saved for future analysis, if needed. An item or sample may be consumed if the analyst determines that consumption of the sample is necessary to have the best chance to obtain results; the examination notes must clearly state this.

H. Evidence storage and disposition

Evidence is stored in a secure location until it is assigned for analysis. Most evidence is delivered

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to the Evidence Unit, assigned an EU number, stored in the Evidence Unit and then transferred to the Forensic Biology Department for examination. Most evidence that is not being actively examined, but is still considered to be “in progress” (pending examination, pending review, etc.) is properly sealed and securely stored either with the Evidence Unit or within secure locking “cages” maintained in the evidence examination rooms.

Retained evidence. Evidence items retained for long-term storage, e.g., victim exemplars from sexual assault evidence kits, must be properly sealed and their storage location documented in the Chain of Custody of the case.

I. Retention, return, and disposal guidelines for evidence and work product

1. Post-Mortem Specimens

- a. **PM sexual assault evidence** is returned to the Evidence Unit after examination.
- b. **Other PM specimens**

	Bloods tain?	Non- Blood?	Retention Schedule
FB cases	Y	Y	Retain all indefinitely.
Non-FB cases	Y	Y	May discard non-blood after 1 year; May discard bloodstain after 4 years.
	N	Y	May discard non-blood after 4 years.
	Y	N	May discard bloodstain after 4 years.
Unlabelled autopsy specimens			May discard
POC/Fetus (criminal activity)	n/a	Y	Retain a small piece and discard the remainder*

*For more detailed information on the retention of products of conception (POC), refer to the Evidence Examination procedure in the Evidence and Case Management Manual.

Bloodstain cards are retained in the laboratory at room temperature.

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- Disposal and disposition guidelines for the residual liquid blood are found in the “Bloodstain Preparation from Whole Blood” procedure in the Forensic Biology Serology Procedures Manual.

Non-blood PM items include things such as hairs, fingernails, tissues, bones, etc. Non-blood PM items may be stored at room temperature, refrigerated or frozen.

2. NYPD (Vouchered) Evidence

After the analytical work is completed, reports are written, and technical reviews are complete, the Evidence Unit is notified via the LIMS that the evidence may be returned to the NYPD.

3. Non-NYPD Evidence

All evidence submitted from non-NYPD agencies, with the exception of retained items, is returned directly to the submitting agency.

4. DNA Extracts

- a. Retained DNA extracts are stored either refrigerated or frozen.
- b. Retention guidelines for DNA extracts:

Extract Source	Suggested Retention
FB evidence, non-exemplar	Retain indefinitely
FB exemplars and pseudoexemplars	May discard after one year
FB missing person cases	May discard after one year*
Labtypes - NYPD personnel	Return extract to NYPD representative
Labtypes - OCME employees, visitors, interns	May discard after one year unless the signed consent form specifies a different retention period

* A due-diligence check on the status of a **missing person case** should be performed prior to discarding extracts. This review will mainly cover post-mortem items and reference samples

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submitted for Missing Persons, such as razors and toothbrushes, to avoid disposing of DNA extracts in situations where the actual item may have been consumed and the only samples left for re-testing are the extracts.

c. **Extract Tracking.** An extract tracking report can be generated by the LIMS and used to note the general location of DNA extracts while in testing or storage status.

d. **Extract Disposal**

The disposal of DNA extracts is documented either in the LIMS or, for pre-LIMS samples, on the extract tracking sheet, or via a memo or similar document which contains sufficient information to provide traceability to specific extracts, e.g., a list of Cryoboxes from which extracts were discarded. The latter method is suggested for use when large quantities of extracts are being discarded.

Disposal of Labtypes DNA extracts is documented in the LabTypes electronic database.

5. Amplified DNA

Amplified DNA is stored refrigerated. Once final analysis of the amplified DNA is complete, the amplified DNA can be discarded. Documentation of disposal is not required.