

Document Title: Sexual Assault Evidence Collection Kit Examination

Controlled: Yes, with red stamp present

Controlled By: Quality Manager

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**A. PURPOSE:**

To examine Sexual Assault Evidence Collection kits for the presence of semen, blood, saliva, trace materials and/or other body fluids. To collect and preserve samples for further analysis.

**B. RESPONSIBILITY:**

Forensic Science Examiners from the Connecticut State Forensic Science Laboratory who have been trained in the discipline of Sexual Assault Evidence Collection Kit examination according to SOP-FB-31 (Training Manual) and SOP-GL-4 (LIMS/Justice Trax).

**C. SAFETY:**

Use appropriate measures for the proper handling of Sexual Assault Evidence Collection Kits according to SOP-GL-2 (Safety Manual).

**D. DEFINITIONS:**

1. SAEC Kit: Sexual Assault Evidence Collection Kit
2. LIMS: Laboratory Information Management System

**E. PROCEDURE:**

SAEC kits will be examined and serological tests will be performed based on the examiner's knowledge, training and experience according to the submitting agency requests, case information and the condition of the evidence.

1. Cleaning Utensils and Laboratory Areas

- a. Clean utensils and lab equipment between each item or sample examined or handled with the appropriate disinfecting solution described in SOP-FB-27, followed by ethanol.
- b. Clean laboratory surfaces between each kit examined as needed with the appropriate disinfecting solution described in SOP-FB-27.
- c. Replace examination paper between each kit examined.

E. 2. Evidence Retrieval

- a. Examiners will be notified of case assignments by a Forensic Biology Supervisor or the LIMS computer system according to SOP-GL-4 (LIMS/Justice Trax) and the Sexual Assault Evidence Collection Kit rotation.
- b. Examiners will retrieve evidence on a regular basis from the Evidence Receiving Unit through a secure transfer with the LIMS computer system according to SOP-GL-4 (LIMS/Justice Trax).
- c. Label the kit with the Lab ID #, submission # and examiner's initials.

3. Evidence Examination

- All examinations are conducted macroscopically unless otherwise recorded on the Sexual Assault Evidence Collection Kit Quality Record Worksheet (FBQR-05).
  - For additional information, refer to the Work Instructions described in SOP-FB-31 (Training Manual).
- a. Document the package and evidence according to the Sexual Assault Evidence Collection Kit Quality Record Worksheet (FBQR-05).
  - b. Use blue ink to record all information, including the intended evidence disposition, on the SAEC Kit Worksheet. Date all documentation and test results.
  - c. All reagents that are used during examination are recorded on the SAEC Kit Worksheet and the General Reagent Sheet (FBQR-09). An electronic reference will be maintained for tracking these reagents.
  - d. Attach photocopies of the medical report form and label information. Attach additional Quality Record worksheets and photographs/sketches as necessary. Photographs may be used as worksheets. The date the photograph is taken is retained in the metadata of that digital image.
  - e. Inventory and label the items in the kit according to the SAEC Kit Worksheet. Include Lab ID #, item # and initials on each envelope/package.
  - f. Item(s) that are received wet should be removed from the package and air dried. Once dry, the item may be examined or re-packaged until future examination.
  - g. Preserve a sample of the known blood for further analysis according to SOP-FB-06 (Whole Blood Sample Preservation).

- E. 3. h. Perform serological tests according to SOP-FB-07 through SOP-FB-17 (Forensic Biology Serological Tests) and SOP-FB-03 (Flow Charts).
- i. Sample Selection is conducted according to the substrate and the type and amount of sample present.
- Sample Selection details will be included on the appropriate Quality Record Worksheet (FBQR-05) according to SOP-GL-1 (Quality Manual). These details will not be included with the results stated in the report.
- j. When appropriate, collect known samples, trace materials and blood and/or body fluid samples from the items based on the submitting agency requests, case information, type of evidence/samples(s) and number, size and quantity of sample(s).
- k. Examine additional physical evidence, such as underpants, included in the SAEC kit according to SOP-FB-01 (Physical Evidence Examination).
- l. Designate the samples collected according to the SAEC Kit Worksheet and if necessary using the letter 'S' for the Forensic Biology Section with the corresponding sample number. See examples listed under E. 4.
- m. Place envelope(s)/package(s) back in the kit, re-seal and initial the seals. Store kit in a designated storage area.
- n. Create samples collected from the items in the LIMS computer system according to SOP-GL-4 (LIMS/Justice Trax) using the designated sub-items.
- o. Store samples in designated, secure and temperature appropriate areas or transfer to other sections of the Laboratory using the LIMS computer system according to SOP-GL-4 (LIMS/Justice Trax). Print the LIMS transfer sheets as needed. Record transfers to other sections on the Request for Examination Sheet (FBQR-10).
- p. If forwarding sample(s) to DNA, create the appropriate DNA request(s) using the LIMS computer system according to SOP-GL-4 (LIMS/Justice Trax).
- q. A secure and password protected LIMS computer system is used in accordance with SOP-GL-5 (Ethics).
- r. The transfer of samples from laboratory cases which were opened prior to 1998, will be recorded on the Evidence Transfer Sheet (FBQR-11).

E. 4. Examples of kit evidence/sample itemization in LIMS

- a. Kit samples are itemized according to the SAEC Kit Worksheet and may be retained as itemized, for example:
  - aa. #1A (known blood sample)
  - bb. #1B (vaginal smear)
  - cc. #1C (vaginal swabs), retained as itemized
  - dd. #1L (known pubic hair sample), retained as itemized
  - ee. #1N-L (fingernail clippings-left hand), retained as itemized
  - ff. #1R (underpants)
- b. Samples retained from the kit items are sequentially itemized, for example:
  - aa. #1A-S1 for a stain made from the known blood sample
  - bb. #1C-S1 for trace removed from the vaginal swabs
  - cc. #1N-L-S1 for a swabbing of the contents of the fingernail clippings-left hand
  - dd. #1R-S1 for a cutting from the crotch area of the underpants
  - ee. #1R-S2 for trace removed from the underpants
- c. Any portion of a sample being forwarded for DNA analysis while the remaining portion is being retained in Forensic Biology should be itemized as #1S1\* and #1S1, for example:
  - aa. #1C\* for the portion of vaginal swabs being forwarded for DNA analysis  
#1C for the remaining vaginal swabs retained in Forensic Biology
  - bb. #1R-S1\* for the portion of a cutting from the crotch area being forwarded for DNA analysis  
#1R-S1 for the remaining cutting from the crotch area retained in Forensic Biology

F. **REFERENCES:**

- 1. SOP-GL-1 (Quality Manual).
- 2. SOP-GL-2 (Safety Manual).
- 3. SOP-GL-4 (LIMS/Justice Trax).
- 4. SOP-GL-5 (Ethics).