**FORWARDING BIOLOGICAL SAMPLES FOR FORENSIC EXAMINATION (collection procedures)**

CLOTHING:

1. Place a clean hospital sheet on the floor as a barrier. Then place the collection paper on the barrier sheet.
2. Ask patients to undress. While undressing, ask patients to remove shoes first and then undress over the collection paper to catch any foreign material, hairs, debris, etc. that may be present on clothing. Ambulatory patients should remove one item of clothing at a time. If someone assists the patient, she/ he should wear gloves.
3. If clothing must be cut off, it is done without cutting through any tears, holes, or other defects in the fabric.
4. Do not remove attached hairs or fibers from clothing.
5. Collect clothing important to assault, first determine, if patients are wearing the same clothes worn either during or immediately following the assault. If so, the clothing should be examined for any apparent foreign material, strains, or damage. Then the items that may contain possible evidence should be collected. If the patients are not wearing the same clothing that they did either during or immediately after the assault, inquire about the location of that clothing. If that clothing has not been brought to the exam site, information on clothing location should be provided to investigating agency so that clothing can be retrieved and examined before any potential evidence is destroyed.
6. Collect both the underwear worn at the time of or immediately after the assault, and the patient is wearing at the time of the exam.
7. If female or transgender male patients are menstruating, collect tampons and sanitary napkins. Air- dry them as much as possible and then place them in a separate paper collection bag. All the wet evidence must be transported in the leak- proof container.
8. Place each piece of clothing and collection paper in a separate paper bag, label, seal, and the initial the seal. If additional bags are needed, use new grocery- style paper bags only. The barrier sheet is not submitted as evidence.

DEBRIS ( hair, nails, fibers, solid objects)

1. Using forceps with plastic- coated tips, carefully remove hairs, fibers, or other debris (e.g. dirt, leaves, fibers etc) from the patients’ body on a collection sheet, package, label, seal, and initial the seal. Surface debris that is dry can be gently scraped into a glass slide.
2. Fingernail evidence: ask patients whether they scratched the suspect’s body, face or clothing. If so, or if fibers of other materials are observed under patient’s fingernails, collect fingernail clippings, scrapings, and/ or swabbing, package fingernail scrapings and tools used to obtain the sample, label as right or left hand, seal, and initial the seal. Cut broken fingernail at the remaining jagged edge for later comparison. If artificial fingernails or nail extensions are being worn by the patient, another nails should be enclosed as a known sample, if one is missing. Package, label, seal, and initial the seals.
3. Place sharp objects (needles, blades, knives, glass fragments) in double peel- packs (heavy- gauge polyethylene pouch with tamper- evident adhesive closures) or in plastic, glass, or cardboard containers.
4. Wrap bullets in gauze to preserve trace evidence and place in a peel- pack, cup, or envelope, do not touch bullets with metal instruments. Gunpowder residue can be removed with tape that is then applied to a glass slide.
5. Preserve evidence on the victim’s hands until collected by securing paper bags over each hand.
6. Carefully comb the hair to remove evidence that may not be visible.

FOREIGN MATERIALS AND SWABS FROM THE SURFACE OF THE BODY

1. Carefully inspect the body, including head, hair, and scalp, for dried or moist secretions and stains ( e.g. blood, seminal fluid, sweat, and saliva) and other foreign material. High- intensity lamp can be used to visualize stains or biological secretions ( saliva, semen, urine, blood etc. ).
2. Obtain swabs from any suspicious area that may be a dry secretion or stain, any moist secretions or any area with a suspicion of bodily fluid transfer (e.g. licking, kissing, biting, splashed semen, or suction injury).
3. Collect swabs from potentially high- yield areas, such as neck, breasts, or external genitalia. If the history is absent or incomplete.
4. Use a moist swab to collect dry secretions, followed by a dry swab.
5. Swab moist secretions with a dry swab.
6. Separate swabs should be used for every sample area collected.
7. Swab bite marks (after photographing). An initial moist swabbing followed by a dry swabbing can be done to obtain high DNA profiles.
8. Cut matted head, facial, or pubic hairs bearing crusted materials or secretions. Place them in an envelope.
9. In case of sexual assault, swab body orifices for collecting biological specimens. If possible, obtain biological samples before further drinking, eating, smoking, or voiding.
10. All the specimens should be air- dried before packing.
11. Package swabs and slides separately, label, seal, and initial the seals. Code all the evidences to help crime lab to which swab was used to prepare which slide.
12. If teeth are flossed prior to oral swab collection, package used floss (if available), label. Seal, and initial the seal.

PUBIC HAIR COMBINGS

Pubic hair combings are collected, if the assault involved the genital area of victim. To collect pubic hair combings:

1. Use the comb and collection paper provided for this procedure.
2. Place the unfolded paper under victim’s buttocks and comb hair toward paper (victim may comb).
3. Fold comb with debris/ hair into paper. Package paper, label, seal, and initial the seal.

ORAL AND ANO- GENITAL SMEARS AND SWABS

1. Ensure that the patient, has not used a bathroom prior to the exam as evidence may lost. Instruct not to wash or wipe away secretions until after evidence collection.
2. Oral sample: place swabs together to collect specimen from oral cavity between gums and cheeks and under tongue. Remove dentures and swab with the same swabs.
3. External- genitalia sample: swab external genital dry- skin areas with the swabs, at least one dry and one moistened with a drop of sterile, distilled, or deionized water.
4. Vaginal/ cervical swab: use swabs to collect specimen from both the vagina and cervix, regardless of time between assault and exam.
5. Penile sample: slightly moisten swabs with distilled water and thoroughly swab the external surface of the penile shaft and glans. Swab all outer areas of the penis and scrotum where contact is suspected. Avoid swabbing the urethral meatus. Gently roll the swabs over one of the microscope slides.
6. Perineal area sample: if there was a suspected vaginal/ anal contact, semen may be leaked in the perineal area. Use an alternate light source on the anal area and flake off or swab areas of dried secretions using a moist swab followed by a dry swab.
7. Ano/ rectal sample: collect swabs from the anal cavity. Avoid contact with external skin surfaces.
8. When taking a swab, care should be taken not to contaminate the collection with secretions or materials from other areas, such as vaginal to rectal or penile to rectal.
9. Air- dry all the swabs and slides before packaging. Label the evidence along with the coding and seal them in separate envelops. Initial the seal.
10. Do not stain or chemically fix swabs or smears.
11. If any foreign substance or material, such as lubricating jelly or speculum is used to obtain the specimen, document it.

BLOOD AND URINE SAMPLE:

1. Blood can be drawn as reference sample at the same time blood is collected for medical or toxicological purposes.
2. It can be collected in lavender-top and/ or yellow- top blood drawing tubes. There colored tubes contain preservatives suitable for forensic blood typing.
3. Total 30ml urine samples can also be collected in a container without preservatives.
4. Write the patient’s name, date and time of collection, and the collector’s initials on the tube. Package, place them in envelope, label, seal, and initial the seal.

GASTRIC CONTENT (including vomit and gastric aspirate): gastric content are essential for screening tests for suspected food, beverage or drug poisoning. Gastric lavage can be done and all of the available sample should be collected without addition of a preservative. Undigested pills and tablets should be separated and placed into plastic pillboxes for analyses.

Hospital items that can be used for evidence collection include:

1. “peal pack” from central sterile processing. One side is transparent while other side is white paper. These come in a variety of sizes, are clean, and provide evidence visualization.
2. Urine specimen containers.
3. “Nalgene” bottles (leak proof) – usually stocked in the lab.
4. Plastic test tubes with covers that are sealed with strips of permanent adhesive label.
5. Empty, clean, corrugated cardboard boxes of various sizes.
6. Pizza boxes (unused).
7. Manila envelopes, from “coin” size to nine inches by 12 inches or larger.
8. Office stationary.
9. Fax or copy paper.
10. Sputum specimen containers (either the large test tubes inside or the container without the test tube).
11. Large, brown paper trash disposable bags.
12. Large, brown two- handle shopping bags.
13. Brown paper grocery bags or long narrow liquor bags.