

Forensic Evidence Collection



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ABSTRACT

Sexual assault, intimate partner violence and elder abuse in the United States are very common. Specially trained forensic nurses are often the first-response of medical care and crisis intervention for vulnerable victims of sexual assault and physical abuse. Increasingly, state jurisdictions are requiring nurses in a variety of health care settings to be specifically trained to provide health care to victims of sexual assault. These specially trained nurses also liaise with other medical and law enforcement professionals to ensure that appropriate documentation and forensic evidence is collected to improve outcomes for the victim and to help with legal requirements to prosecute offenders. The development of forensic nursing, with a specific case focus on Texas law as pertains to forensic nursing in sexual assault cases, found in the *Sexual Assault Prevention and Crisis Services Act, Texas Government Code*, is discussed.

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Policy Statement

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Continuing Education Credit Designation

This educational activity is credited for 2 hours. Nurses may only claim credit commensurate with the credit awarded for completion of this course activity.

Statement of Learning Need

Nurses at all levels of training are required to know the recommended protocols of collecting evidence of sexual assault or abuse, when these situations arise in their practice relating to a nurses examination of patients who are victims of sexual assault or abuse.

Course Purpose

To provide nursing knowledge of information needed to collect forensic evidence when caring for a survivor of a sexual assault.

Target Audience

Advanced Practice Registered Nurses and Registered Nurses
(Interdisciplinary Health Team Members, including Vocational Nurses
and Medical Assistants may obtain a *Certificate of Completion*)

Course Author & Planning Team Conflict of Interest Disclosures

Dana Bartlett, RN, BSN, MSN, MA, William S. Cook, PhD,
Douglas Lawrence, MA, Susan DePasquale, MSN, FPMHNP-BC – all
have no disclosures

Acknowledgement of Commercial Support

There is no commercial support for this course.

Activity Review Information

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**Please take time to complete a self-assessment of knowledge, on
page 4, sample questions before reading the article.**

**Opportunity to complete a self-assessment of knowledge learned will
be provided at the end of the course.**

1. The term forensic means, in part

- a. application of scientific methods to the investigation of a crime.
- b. testing blood and urine samples for alcohol and/or drugs.
- c. providing testimony about a crime.
- d. a specific type of evidence.

2. True or False: Forensic evidence collection is mandatory after a sexual assault.

- a. True
- b. False

3. A forensic examination can only be done if

- a. a physician and a nurse are present.
- b. the patient has given informed consent.
- c. a relative of the patient is present.
- d. the patient is 21 years or older.

4. Someone who has suffered a sexual assault should be asked if she/he

- a. took any antibiotics after the incident.
- b. defecated or urinated after the incident..
- c. took any anti-depressants after the incident.
- d. had a fever or any unexplained illness in the prior two days.

5. Someone who has suffered a sexual assault should be asked

- a. when she/he first became sexually active.
- b. if she/he has *ever* used alcohol or drugs.
- c. what types of sexual activity she/he enjoys.
- d. if she/he lost consciousness at any time during the assault.

Introduction

The immediate treatment of sexual assault survivors and victims of violence and abuse requires a high level of assessment and documentation skills and an understanding of the emotional and psychological needs of survivors and victims. The primary focus of this course is evidence collection in the context of a sexual assault. Further, nurses at all levels are required to understand the needs of patients who have suffered intimate partner violence or elder abuse and other aspects of care of sexual assault survivors. Specifically, in the State of Texas, specially trained forensic nurses are legally mandated to know the regulations of "Documentation, history-taking skills, use of sexual assault kit, survivor symptoms, and emotional and psychological support interventions for victims." (Texas State Board of Nursing, Board Rule 216.3(d)(1))

Forensic Nursing Overview: Case Of The State Of Texas

Texas law outlines the procedures and rules a nurse must follow in order to assure the process of evidence collection performed during the examination of a sexual assault or abuse victim meets the requirements of *Texas Government Code*, section 420.031, *et seq.* Other states may have similar statutes that govern the collection of evidence after a sexual assault or abuse.

Nurses who care for these patients must understand the application of scientific knowledge to the investigation of a crime, especially in the area of evidence collection. The legal aspect of these patient care situations, combined with the highly sensitive and complicated nature of sexual assault, violence, and abuse, oblige nurses to have specialized expertise that can only be had by focused learning. Therefore, state nursing boards have passed rules setting forth the

standards for nurses when these situations arise. By example, the Texas State Board of Nursing requires nurses licensed in the state of Texas, including APRNs, to have training in forensic evidence collection to assure that evidence is collected in compliance with *Texas Government Code*, section 420.031, *et seq.* This Board rule applies to nurses who are working in specific clinical situations and/or who will perform a forensic examination on a sexual assault survivor.

The Texas State Board of Nursing requires nurses licensed in the state of Texas, including APRNs, to have training in forensic evidence collection. This rule applies to nurses who are working in specific clinical situations and/or who will perform a forensic examination on a sexual assault survivor.

Learning Break:
The term forensic is used throughout this module, and the definition of forensic used here is *of, relating to, or denoting the application of scientific methods and techniques to the investigation of crime.*

The requirements of this rule are outlined in Texas Board of Nursing, Board Rule 216.3(d)(1). Rule 216.3(d)(1) also states that this continuing education requirement “ shall include information relevant to forensic evidence collection and age or population-specific nursing interventions that may be required by other laws and/or are necessary in order to assure evidence collection that meets requirements under the Government Code §420.031 regarding use of a service-approved evidence collection kit and protocol.”

Epidemiology Of Sexual Assault: Intimate Partner Violence And Elder Abuse

Sexual assault in the United States is very common. The lifetime prevalence of sexual assault against women has been estimated to be 18%-19% and 2%-3% in men.¹ Intimate partner violence and elder abuse are also quite common. It has been reported that 32% of women and 28% of men have experienced some sort of intimate partner violence,² and 10%-47% of elderly adults have suffered some sort of abuse.³

Intimate partner violence is defined as physical, sexual, or psychological harm by a current or former partner or spouse; violence may occur among heterosexual couples or same-sex couples and sexual intimacy is not a requirement.² Elder abuse is an intentional act, or failure



to act, by a caregiver or another person in a relationship involving an expectation of trust that causes or creates a risk of harm to an older adult.⁴

It is well known that many cases of sexual assault, intimate partner violence, and elderly abuse are not reported by the survivor or a witness and identifying someone who has suffered one of these assaults is not always easy.^{1,2,5,6} Screening for sexual assault, intimate partner violence, and elder abuse is recommended by many authorities and there is a large variety of screening sensitive and specific screening tools that can be used.^{2,4,7,8}

The Texas law applicable to forensic nursing in assault and abuse cases is found in the *Sexual Assault Prevention and Crisis Services Act, Texas Government Code, section 420.031, et seq.*⁹ The provisions related to evidence collection are found in section 420.031.

The *Texas Government Code, section 420.031*, entitled "Evidence Collection Protocol; Kits," is also relevant to this course. It reads as follows:

"(a) The attorney general shall develop and distribute to law enforcement agencies and proper medical personnel an evidence collection protocol that shall include collection procedures and a list of requirements for the contents of an evidence collection kit for use in the collection and preservation of evidence of a sexual assault or other sex offense. Medical or law enforcement personnel collecting evidence of a sexual assault or other sex offense shall use an attorney general-approved evidence collection kit and protocol.

(b) An evidence collection kit must contain items to collect and preserve evidence of a sexual assault or other sex offense and other items determined necessary for the kit by the attorney general.

(c) In developing the evidence collection kit and protocol, the attorney general shall consult with individuals and organizations having knowledge and experience in the issues of sexual assault and other sex offenses.

(d) A law enforcement agency that requests a medical examination of a victim of an alleged sexual assault or other sex offense for use in the investigation or prosecution of the offense shall pay the costs of the evidence collection kit. This subsection does not require a law enforcement agency to pay any costs of treatment for injuries.

(e) Evidence collected under this section may not be released unless a signed, written consent to release the evidence is obtained as provided by Section 420.0735.

(f) Failure to comply with evidence collection procedures or requirements adopted under this section does not affect the admissibility of the evidence in a trial of the offense.”

Texas Board of Nursing: Board Rule 216.3(d)(1)

In order to insure proper implementation of the above Texas law, the Texas Board of Nursing has adopted Board Rule 216.3(d)(1):

“(d) Forensic Evidence Collection.

(1) *Pursuant to the Health and Safety Code §323.004 and §323.0045, a nurse licensed in Texas or holding a privilege to practice in Texas, including an APRN, who performs a forensic examination on a sexual assault survivor must have basic forensic evidence collection training or the equivalent education prior to performing the examination. This requirement may be met through the completion of CNE that meets the requirements of this subsection. This is a one-time requirement. An APRN may use continuing*

medical education in forensic evidence collection that is approved by the Texas Medical Board to satisfy this requirement.

- (2) *A nurse licensed in Texas or holding a privilege to practice in Texas, including an APRN, who is employed in an emergency room (ER) setting must complete a minimum of two hours of CNE relating to forensic evidence collection that meets the requirements of this subsection within two years of the initial date of the nurse's employment in an ER setting. This is a one-time requirement.*

- (A) *This requirement applies to nurses who work in an ER setting that is:*
 - (i) the nurse's home unit;*
 - (ii) an ER unit to which the nurse "floats" or schedules shifts; or*
 - (iii) a nurse employed under contractual, temporary, per diem, agency, traveling, or other employment relationship whose duties include working in an ER.*

- (B) *A nurse shall be considered to have met the requirements of paragraphs (1) and (2) of this subsection if the nurse:*
 - (i) completed CNE during the time period of February 19, 2006, through September 1, 2013; and*
 - (ii) the CNE met the requirements of the Board's rules related to forensic evidence collection that were in effect from February 19, 2006, through September 1, 2013.*

- (C) *Completion of at least two hours of CNE that meets the requirements of this subsection may simultaneously satisfy the requirements of paragraphs (1) and (2) of this subsection.*
- (3) *A nurse who would otherwise be exempt from CNE requirements during the nurse's initial licensure or first renewal periods under §216.8(b) or (c) of this chapter (relating to Re-licensure Process) shall comply with the requirements of this section. In compliance with §216.7(b) of this chapter (relating to Responsibilities of Individual Licensee), each licensee is responsible for maintaining records of CNE attendance. Validation of course completion in forensic evidence collection should be retained by the nurse indefinitely, even if a nurse changes employment.*
- (4) *Continuing education completed under this subsection shall include information relevant to forensic evidence collection and age or population-specific nursing interventions that may be required by other laws and/or are necessary in order to assure evidence collection that meets requirements under the Government Code §420.031 regarding use of a service-approved evidence collection kit and protocol. Content may also include, but is not limited to, documentation, history-taking skills, use of sexual assault kit, survivor symptoms, and emotional and psychological support interventions for victims."*

History Taking For Sexual Assault

History taking should be performed after the patient's medical needs have been attended to. History taking is a critical step in caring for someone who has suffered a sexual assault, and it is very difficult for both nurse and survivor as the process is lengthy, detailed, quite personal and often needs to be done when the survivor is emotionally distraught. The interview should be done in a place where the patient's privacy is ensured and where there will be no interruptions. The patient's communication skills and language of choice should be considered, as well.

Patient advocates can be very helpful during this process, as Texas law recognizes: "An individual may act as an advocate for survivors of sexual assault for the purposes of Article 56.045, Code of Criminal Procedure, if the individual has completed a sexual assault training program certified by the attorney general and is an employee or volunteer of a sexual assault program." (*Texas Gov. Code*, § 420.051)

Law enforcement officials will also need to speak to the victim and efforts should be made to minimize repetition in questioning to spare the patient's feelings.

When documenting the information obtained during the history taking process, maintain strict accuracy and objectivity. Use the patient's exact words if possible. Allow a lot of time and always be flexible; this is not a process that may or should be hurried. All of the information obtained is confidential and should be treated as such. The following information should be collected during questioning:

Date and Time of the Assault

This is especially important as the time between the assault and evidence collection can influence the quality of the evidence.

Description of the Assailant

Details of the Assault

Location, use of force, threats, or use of weapons; specific information is very important.

Example 1: If the assault was outside, was it on dirt, mud, grass, or pavement.

Example 2: Physical force during an assault can include biting, burning, hitting, pinching, scratching, strangling, use of restraints, or forced use of alcohol and/or drugs.

Patient Complaints

A physical examination will be done but asking the patient about pain and discomfort can help direct the examination. The patient should be specifically asked if there is anal, oral, or vaginal pain or bleeding. It is important to know if the patient lost consciousness. Loss of consciousness could indicate the use of alcohol and/or drugs to facilitate the assault and toxicological testing would need to be done.

Recent Consensual Sexual Activity

This would include anal, oral, and/or vaginal intercourse and whether or not barrier protection was used.

Post-assault Activities

After the assault it is important to determine: Did the patient shower? Was the anal or vaginal area cleaned or wiped? Was a vaginal douche used or a diaphragm or a tampon inserted? Did he/she defecate, urinate, vomit, or have consensual sexual activity and if so, was a condom used? Was any vigorous physical activity performed? If there was oral penetration did the patient gargle, rinse, use a toothbrush or mouthwash, eat, drink, or smoke? Did she/he change clothes after the assault?

If possible the victim of a sexual assault should avoid showering or washing any part of the body, including hair. Other activities that should be avoided are 1) brushing teeth, 2) cleaning or cutting fingernails, 3) irrigating the vagina, 3) defecating, urinating, or vomiting, 4) eating, drinking, or smoking, 5) changing clothes, 6) performing vigorous physical activity, 7) touching or destroying any part of the scene of the assault, or 8) changing or destroying any female sanitary items that were being worn at the time of the assault.

Details of the Sexual Assault

- Did penetration occur and if so, with an object, fingers, or genitals?
- Was there anal penetration?
- Was there oral penetration?
- Was there vaginal penetration?
- Was there oral contact with genitals or anal area?
- Was there ejaculation? If yes, where?
- Any other intimate contact such as kissing or licking?

Medical History

Ask about recent illnesses, chronic illness, and medications that are currently being used.

Assessment of the patient's emotional and psychological state should be done. The emotional and psychological response to a sexual assault varies and each survivor is unique in how she or he responds. People who have survived a sexual assault may be angry, anxious, depressed, emotionally detached, fearful, irritable, have suicidal ideation, and experience great difficulty in eating, sleeping, and in intimate and personal relationships. Daily activities such as work and social life are often severely impaired; the survivor may develop post-traumatic stress disorder (PTSD). Physical signs and symptoms such as headache are common, as well.

The immediate needs of a sexual assault survivor include empathy and support. Patience is essential; the survivor must be allowed as much time as needed during the history taking and the subsequent examination.



The survivor will need professional counseling, as well. There is a very large amount of information that must be processed, both emotional and practical, and guidance and close follow-up should be arranged; it is not practical to expect someone to go through this experience without a professional help.

Physical Examination

The physical examination should be systematic and thorough. Many women who have been sexually assaulted will not have physical injuries⁵ but the patient should still be examined from head to toe. Whenever possible, documentation should be objective, and to that end, measurements and photography are invaluable.

An informed consent must be signed before photographs are taken, and the consent should state what type of photographs will be taken, who will be able to view them, and how they will be stored. The photographs should be clearly labeled, stored securely, and handled using chain of custody protocol. It is helpful to take several photos of each injury with at least one being a close up and another showing where the injury is located.

A general description of the patient's appearance should be included in the physical examination. In cases of sexual assault, the perineal area, the breasts, anus, rectum, and vagina should be carefully examined. The head, neck, extremities should also be closely examined as these are areas that are commonly injured during an assault. All findings should be carefully and objectively documented and an illustrated body chart should be used for this purpose. Evidence collection kits may include a body chart and this should be used.

Because there are legal implications associated with injury documentation, standardized terminology should be employed to describe injuries whenever possible. The TEARS system, **T**ears, **E**cchymoses, **A**brasions, **R**edness, and **S**welling has been used for many years, but more recent references recommend using the BALD

STEP system as a way to direct examiners to look for certain injuries and to provide a consistent approach to injury description.^{5,10}

Table 1: BALD STEP Assessment System

<p>B – Bruises, bite marks, bleeding, burns</p> <p>A – Abrasions, avulsions</p> <p>L – Lacerations</p> <p>D – Deformities, acute</p> <p>S – Stains, swelling</p> <p>T – Tenderness, trace evidence</p> <p>E – Erythema</p> <p>P – Patterned injury, petechiae, penetrating injury (gunshot, incised, puncture, stab)</p>
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If any of these are present there should be documentation about the area or areas where the injury or injuries are located, their appearance, and their size. If needed careful measurements should be made of specific injuries such as bruises and swelling.

Forensic Evaluation

An informed consent is required before a forensic examination can be performed; the consent allows for the evidence to be collected and for the evidence to be released to law enforcement. If the patient is less

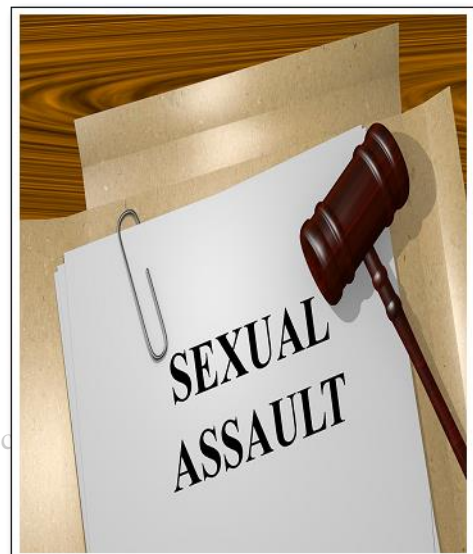
than 16 years of age a parent or legal guardian must sign the consent. A forensic examination after a sexual assault is *not* mandatory.

The forensic examination involves *collection of evidence*, and it requires the *proper handling of this evidence and following the principles of the chain of custody*.

It should be remembered that the *Texas Government Code*, section 420.031, provides, “. . . an evidence collection protocol that shall include collection procedures and a list of requirements for the contents of an evidence collection kit for use in the collection and preservation of evidence of a sexual assault or other sex offense. Medical or law enforcement personnel collecting evidence of a sexual assault or other sex offense shall use an attorney general-approved evidence collection kit and protocol. An evidence collection kit must contain (b) items to collect and preserve evidence of a sexual assault or other sex offense and other items determined necessary for the kit by the attorney general.”

Forensic evidence is anything that could be considered relevant to the investigation of a crime. The types of evidence that are collected will depend on the details of the assault but the evidence that is typically obtained after a sexual assault is listed below.

First, it is important for the nurse to recognize that the evidence collection kit must meet the requirements of the *Texas*



Government Code, Chapter 420. If toxicology testing needs to be done, kits for blood alcohol measurement and urine testing for drugs are available from the Department of Public Safety (DPS) and these kits should be used. The DPS also provides syringe transport tubes, which can be used to transport syringes.

Basic principles of evidence collection are universal, but the majority of the information in this section of the module is derived from the Texas Physical Evidence Handbook. This Handbook has a complete description of the state of Texas guidelines for evidence collection and handling, and the Handbook can be viewed by going to the Texas Department of Public Safety website <http://www.txdps.state.tx.us/> and entering Texas Physical Evidence Handbook in the search box. Any text regarding evidence collection in this module that is in quotation marks is from the Handbook.

Basic principles of evidence collection, according to Texas Physical Evidence Handbook and other authoritative sources are outlined below.

- Sufficiency of Sample:

There must be enough evidence to analyze and there are guidelines in the Handbook for this.

- Maintenance of Individuality:

Each piece of evidence must be collected and preserved as a separate sample to avoid contamination.

- Collecting and Packaging:

This is a very important topic and will be discussed at length. The first consideration is time, because the usefulness of forensic evidence does vary with time. For example, semen is rarely present in the vagina 72 hours after sexual contact. However, there many, many factors that can affect the presence and usefulness of forensic evidence such as body fluids and there is no *absolute* time frame during which forensic evidence must be collected.^{5,11}

Follow the guidelines of the individual institution and when in doubt collect evidence. Collection details such as how to collect evidence and how much should be collected can be found in the Texas Physical Evidence Handbook. Several examples from the Handbook of the proper procedures for evidence collection and storage provided here.

Example 1:

Fingernail deposits, checked for the presence of blood, hair, tissue, or other evidence; all deposits should be collected; use clean nail clippers; separate left and right hands, and gently use a separate toothpick or a similar tool to obtain the specimens for each finger; and, place each in a separate, well sealed container. The evidence should be stored in a cool and dry environment (room temperature is acceptable) and should not be exposed to direct sunlight.

Example 2:

Biological tissue for DNA analysis; latex, nitrile, or other non-porous polymer gloves must be worn when recovering and packaging this type of evidence; other personal protective equipment may be needed to ensure personal safety and to avoid contamination of the evidence; biological stains and reference samples should be treated as a biohazard; refrigerate liquid biological samples until submission to the laboratory; freeze tissue samples until transporting to the laboratory; package items in white paper.

Do not use plastic packaging for biological evidence. Store the packaged items in a cool, dry area. Avoid exposing the evidence to sunlight, heat, and excessive humidity, and refrigerate sexual assault kits if they contain liquid samples, such as blood, until submitted to the laboratory. If uncertain, the kits should be refrigerated. Do not freeze the kits. Do not store the kit in hot conditions, such as the trunk of a car.

- Labeling and Storing:

The evidence samples should be sealed and clearly marked with the time and date they were collected, an item number, the location of the body from which the evidence was collected, the examiner's initials, and whatever patient identifying information is required. The samples are then placed in the kit. Kits that have blood or body fluids or are suspected of having blood or body fluids should be labeled as *Biohazard*. Containers with glass or sharp objects should be labeled as such. After it has been

labeled and sealed the kit should be refrigerated and the refrigerator should be locked or it should be in a locked room. The kit can also be given to a law enforcement officer, using chain of custody protocol.

- **Avoiding Contamination:**

It is critically important to prevent contamination of evidence. Wear gloves when collecting evidence and change gloves between collecting different types of evidence. Do not smoke, eat, or drink when handling samples, and try and avoid coughing, sneezing, or talking when handling samples. The possibilities and complexity of contamination are well illustrated in this passage from the Texas Physical Evidence Handbook:

“Evidence open for examination is at risk for unintentional contamination, which diminishes the integrity, quality, and usefulness as evidence. Contamination can occur in a variety of ways depending on the type of evidence; by example, DNA contamination may occur from a handler coughing, talking, sneezing, shedding a hair or dandruff, or touching a surface. A DNA contamination event may occur days before detection. The slightest amount of DNA is now detectable with the very sensitive kits in use, as DNA is routinely amplified (replicated) to ensure there is sufficient testing sample. Trace contamination can occur from shedding hair or fibers. Latent Print contamination can occur from a touch, and Questioned Document contamination can occur from the applied pressure of any sharp edge. Digital Multimedia contamination can occur from a magnet.”

- Proper Sealing of Evidence:

Evidence must be properly sealed in its container; this ensures that if the seal has been tampered with and the integrity of the evidence has been compromised it will be evident. The tape must have the initials of the person performing the seal and the date on which the seal was created and some part of the labeling must extend over the edge of the seal. The opening of the container should be completely covered with tape. Do not use staples to seal an evidence container.

- Maintain the Chain of Custody:

Forensic evidence should be handled with strict adherence to chain of custody protocol. The *Texas Government Code*,⁸ section 420.033. (See discussion below under "Chain of Custody.")

- Submission Forms:

"A DPS (Department of Public Safety) Crime Laboratory Submission form (LAB-06) should be included with all evidence submissions. The Sexual Assault Evidence Submission Form (LAB-06A) should also be included with all sexual assault evidence submissions. These forms will ensure that the laboratory has all the necessary information about the case. Submission forms are available at any of the 13 Texas DPS Crime Laboratories or can be downloaded from the Texas DPS website: <http://www.txdps.state.tx.us/CrimeLaboratory/Forms.htm>

A Toxicology/Blood Alcohol Kit Laboratory Submission Form (LAB-12) should be used for the submission of whole blood or urine specimens for the determination of alcohol and/or drug content. This form will be included in the blood specimen and urine specimen collection kits available from the General Stores."

Table 2: Types of Forensic Evidence

- **Body fluids such as blood, saliva, and semen: These may be collected from the anus, rectum, mouth, vagina, or skin surfaces, frequently by the use of smears or swabs. Follow the guidelines of the institution in terms of how many smears or swabs to collect.**
- **DNA sample from the patient**
- **Personal articles such as clothing that may have relevance to the situation**
- **Hair samples from the scalp and pubic area**

Chain Of Custody

Forensic evidence should be handled with strict adherence to chain of custody protocol. The *Texas Government Code*,⁸ section 420.033 states:

"Medical, law enforcement, department, and laboratory personnel who handle sexual assault evidence under this chapter or other law shall maintain the chain of custody of the evidence

from the time the evidence is collected until the time the evidence is destroyed."

Chain of custody provides documentation about where the evidence has been kept and who has handled the evidence, and why, and it is critically important. If the chain of custody is not strictly observed the authenticity of the evidence can be challenged and suspicions of tampering can arise, and the evidence may not be admissible in court.

The chain of custody documentation should contain:

- The patient identifier
- Who has had possession of the evidence and why she/he had it
- When the evidence was transferred, who released it, who received it, and why that person had need of it
- Contact information for everyone who has had possession of the evidence
- Date and time of possession.
- Description of the evidence
- Where the evidence has been
- Where the evidence was collected

Toxicology Evidence

It is not uncommon for intoxication with alcohol or drugs to be a part of a sexual assault, and it is recommended that alcohol and drug analysis be performed if there has been a sexual assault and the survivor reports impaired consciousness or loss of consciousness.

A Toxicology/Blood Alcohol Kit Laboratory Submission Form (LAB-12) should be used for the submission of whole blood or urine specimens for the determination of alcohol and/or drug content. This form will be included in the blood specimen and urine specimen collection kits available from the General Stores.

The Physical Evidence Handbook has a step-by-step procedure for collection of blood samples.

Learning Break: Despite the attention given in the popular media to flunitrazepam and gammahydroxybutyrate as “date rape” drugs, these substances are rarely used in drug-facilitated sexual assaults. The most common substance involved in drug-facilitated sexual assault is alcohol, followed by cocaine and marijuana. The Texas Department of Safety Crime Laboratory performs the analysis of biological specimens for the presence of alcohol or drugs.

Table 3: Blood Collection Procedure

1. Complete the Subject Consent Form and ensure that both the subject and witnesses sign the form where indicated. Retain the form for your records. A written request from law enforcement is also required, and the sample should be obtained while the requesting law enforcement officer is present.
2. Fill out the Toxicology/Blood Alcohol Kit Laboratory Submission Form (LAB-12) and the Blood Vial Seal(s).
3. Cleanse the blood withdrawal site with only a non-alcoholic prep pad.
4. Collect the blood in 10 mL gray-top vacutainer vials containing a preservative and an anticoagulant. The DPS Blood Specimen Kit (680-93-8050) contains gray-top vacutainer vials and protective materials for safe shipping and handling. Draw two vials of blood; the second tube is collected as a precaution in case additional evidence is needed.
5. After the specimen(s) has been collected by a qualified professional as described by the Texas Transportation Code, verify the information on the

Blood Vial Seal(s) (especially the subject's name), remove the backing from the seal(s), affix the circle on the seal to the rubber stopper, and press the ends of the seal down the sides of each blood vial.

6. Place each blood collection vial into an absorbent pouch.
7. Place each absorbent pouch into a separate plastic screw-cap tube and close the tube.
8. Put the tubes in the foam holder inside the box.
9. Close the box lid and seal the box with the enclosed Integrity Seal. Initial and date the seal.
10. Hand the evidence directly to the law enforcement officer and complete a chain of custody form.
11. If the blood sample needs to be stored, it should be refrigerated at 36° - 46° F.
12. If the evidence is to be mailed, fill out the self-adhesive mailing label (see listing of DPS labs on the back of the instruction sheet). For the mailing of biological specimens, it is very important that your name and phone number are included in the return address. Affix this label to the top of the sealed box. Postage will be necessary if the box is mailed to the laboratory.
13. Check the submission form for completeness, refold, and insert the submission form into the plastic sleeve attached to the outside of the box and seal. If appropriate, include the lab copy of the DIC-23A in with the submission form. No paperwork should be placed inside the box.
14. Protect the specimen from extreme temperatures. If submission is delayed, it is recommended to refrigerate the sample. Submit blood kit to the appropriate laboratory as soon as possible for analysis.

The Physical Evidence Handbook also has a step-by-step procedure for collection of urine samples.

Table 4: Urine Collection Procedure

Follow these steps to assemble a urine collection kit:

1. Complete the Subject's Consent Form and ensure that both the subject and

witness sign the form where indicated. This form should be retained for your records.

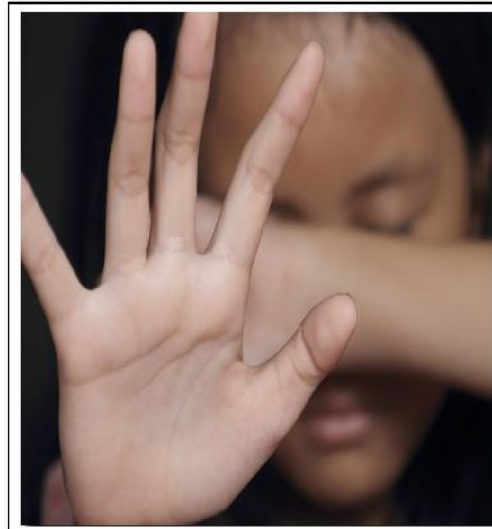
2. Complete information requested on the Toxicology/Blood Alcohol Kit Laboratory Submission Form (LAB-12), Investigating Officer's Report label, and Specimen Security Seal.
3. The urine collection must be witnessed by the arresting officer or his/her representative.
4. If the specimen is collected in a urine collection cup, transfer to a leak proof bottle. The DPS Urine Specimen Kit (680-93-8060) contains a secure bottle and protective materials for safe shipping and handling.
5. Give the subject the specimen bottle and instruct subject to remove bottle cap and then partially peel back or remove the bottle integrity seal.
6. Instruct subject to fill the bottle at least half-full by voiding directly into the bottle and then return the specimen bottle directly to the arresting officer or representative. Thirty (30) mL is required.
7. Subject may urinate into a non-waxed paper or plastic cup, and the specimen can then be poured into the specimen bottle by you.
8. Immediately after receiving the specimen bottle, replace bottle cap and tighten to prevent leakage.
9. Verify the information on the Specimen Security Seal, remove backing from the seal, affix center of seal on the bottle cap, and press ends of seal down both sides of the bottle. The collection witness should initial the specimen seal.
10. Affix the Investigating Officer's Report Label to the plastic bag.
11. In order to comply with US Postal regulations, place the specimen bottle into the foam holder, insert into the ziplock bag provided with the liquid absorbing sheet, and press the ziplock seal closed to prevent any leakage. Do not remove the liquid absorbing sheet.
12. Insert the ziplock bag containing the urine specimen into the mailing box and close the lid. Secure box lid with the Kit Box Shipping Seal where indicated, initial and date so the writing goes across the seal and the box.
13. Crime Laboratory personnel request that the completed submission form be placed inside an envelope and taped to the outside of the mailing box. Do not place the submission form in the box.
14. Completely fill out the mailing information on top of the box (see listing of

DPS labs and associated service areas).

15. Submit urine mailer to the appropriate laboratory as soon as possible for analysis. If submission is delayed more than a few days, refrigeration of the sample is recommended. Postage will be necessary if the box is mailed to the laboratory.

Sexual Assault And Pregnancy: Infectious And Sexually Transmitted Diseases

Pregnancy testing should be done for all women of child-bearing age who have been sexually assaulted and emergency contraception should be offered.¹ Testing for sexually transmitted diseases and other infectious disease such as hepatitis B, HIV, and syphilis should be done on a case-by-case basis.¹ The Centers for



Disease Control and Prevention (CDC) recommend giving empiric antibiotic prophylaxis for prevention of chlamydia, gonorrhea, and trichomonas (especially if the patient is unlikely to return for follow-up evaluations), hepatitis B vaccination, and HPV vaccination.¹²

Post-exposure prophylaxis (PEP) for prevention of infection with HIV should be done on a case-by-case basis.^{1,12} The Post-Exposure Prophylaxis Hotline is a free service that provides expert consultations and advice when emergency care and prevention of certain infectious and sexually transmitted diseases is needed. The service is available from 09:00 a.m., to 02:00 p.m., EST, by calling (888) 448-4911. The

Post Exposure Prophylaxis website also has guidelines and educational resources on its website:

<http://nccc.ucsf.edu/clinician-consultation/pep-post-exposure-prophylaxis/>.

Table 5: CDC Recommendations Regarding Pregnancy and Infectious Disease Prevention after Sexual Assault

- An empiric antimicrobial regimen for chlamydia, gonorrhea, and trichomonas.
- Emergency contraception. This measure should be considered when the assault could result in pregnancy in the survivor.
- Post-exposure hepatitis B vaccination (without HBIG) if the hepatitis status of the assailant is unknown and the survivor has not been previously vaccinated. If the assailant is known to be HBsAg-positive, unvaccinated survivors should receive both hepatitis B vaccine and HBIG. The vaccine and HBIG, if indicated, should be administered to sexual assault survivors at the time of the initial examination, and follow-up doses of vaccine should be administered 1–2 and 4–6 months after the first dose. Survivors who were previously vaccinated but did not receive post-vaccination testing should receive a single vaccine booster dose (see hepatitis B).
- HPV (human papillomavirus) vaccination is recommended for female survivors aged 9–26 years and male survivors aged 9–21 years. For men who have sex with men, who have not received the HPV vaccine or who have been incompletely vaccinated, vaccine can be administered through age 26 years. The vaccine should be administered to sexual assault survivors at the time of the initial examination, and follow-up dose administered at 1–2 months and 6 months after the first dose.
- Recommendations for HIV PEP are individualized according to risk.

**Intimate Partner Violence And Elder Abuse:
Needs Of The Victim**

People who are victims of intimate partner violence suffer many of the same traumas as survivors of sexual assault; in particular they are especially susceptible to developing PTSD and battered woman syndrome, which is a sub-type of PTSD.⁵ As with survivors of sexual

assault the first priority is to treat any acute injuries. Following that the patient's safety should be evaluated. As the perpetrator of the violence is a part of the patient's life, it must be determined how safe it will be for the victim to return home and to make alternative arrangements if that is not possible. If there is a risk of further violence, and the patient would be returning to that environment, a safety plan (*i.e.*, identifying the location of the nearest shelter, and emergency contact numbers) should be made.⁶

Counseling should be offered and the appropriate referrals should be made, as well. Many women who are the victims of intimate partner violence are reluctant to accept help and counseling, and these cannot be forced. The risks and dangers should be clearly outlined and it should be made certain that the patient has access to all the resource she/he needs for personal safety.

Elder abuse can be emotional, financial, physical, psychological, sexual, or simply neglect. Detection of elder abuse can be difficult for a variety of reasons and targeted screening may be helpful in identifying victims. In addition, clinicians should look for signs of abuse such as unexplained injuries, pressure ulcers, dehydration, malnutrition, fear around caretakers, or non-compliance with medication regimens. The first priority is to treat acute injuries and then to make sure the patient will be returning to, or going to a safe environment. A social services referral should be made and it is mandatory to report cases of elder abuse to adult protective services.

Summary

Collecting evidence after an incident of sexual assault or other type of interpersonal violence can seem complex and intimidating. Certainly there are specific procedures that must be followed and these are somewhat detailed and lengthy. However, the protocols for forensic evidence collection will be clearly outlined in the policies and procedures of each health care facility and guidelines are available in the Texas Physical Evidence Handbook. It is comforting to the patient to be able to collect evidence quickly and efficiently but it is more important to do it correctly. The basic principles outlined in this course will help you accomplish this goal.

Please take time to help NurseCe4Less.com course planners evaluate the nursing knowledge needs met by completing the self-assessment of Knowledge Questions after reading the article, and providing feedback in the online course evaluation.

Completing the study questions is optional and is NOT a course requirement.

1. The term forensic means, in part

- a. application of scientific methods to the investigation of a crime.
- b. testing blood and urine samples for alcohol and/or drugs.
- c. providing testimony about a crime.
- d. a specific type of evidence.

2. True or False: Forensic evidence collection is mandatory after a sexual assault.

- a. True
- b. False

3. A forensic examination can only be done if

- a. a physician and a nurse are present.
- b. the patient has given informed consent.
- c. a relative of the patient is present.
- d. the patient is 21 years or older.

4. Someone who has suffered a sexual assault should be asked if she/he

- a. took any antibiotics after the incident.
- b. defecated or urinated after the incident..
- c. took any anti-depressants after the incident.
- d. had a fever or any unexplained illness in the prior two days.

5. Someone who has suffered a sexual assault should be asked

- a. when she/he first became sexually active.
- b. if she/he has *ever* used alcohol or drugs.
- c. what types of sexual activity she/he enjoys.
- d. if she/he lost consciousness at any time during the assault.

6. Which of the following is correct?

- a. There is no absolute time limit for collecting forensic evidence after a sexual assault.
- b. Forensic evidence must be collected within 30 days of a sexual assault.
- c. Forensic evidence must be collected with 4 hours of a sexual assault.

- d. There are absolute time limits for collecting forensic evidence after a sexual assault.

7. Which of the following is a basic principle of forensic evidence collection?

- a. Obtaining at least three samples of each type.
- b. Avoiding contamination.
- c. Obtaining consent for collection of each type of sample.
- d. Immediately freezing samples.

8. Toxicological testing is recommended if

- a. the survivor of a sexual assault knew the perpetrator.
- b. the survivor of a sexual assault is < 16 years of age.
- c. the survivor of a sexual assault reports loss of consciousness.
- d. the survivor of a sexual assault has been physically injured.

9. One aspect of the chain of custody rule is that it documents

- a. why forensic evidence has been collected.
- b. the quality of the forensic evidence.
- c. when and where the assault took place.
- d. where evidence has been and who has had possession of it.

10. Sexual assault evidence kits must be _____ or their integrity can be questioned.

- a. properly labeled and sealed.
- b. properly sealed and stored at room temperature.
- c. accompanied with blood and urine samples.
- d. submitted for analysis with 6 hours of collection of the evidence.

11. If the patient is less than 16 years of age

- a. a signed consent is not required.
- b. a court order is required in lieu of consent.
- c. a parent or legal guardian must sign the consent.
- d. a forensic examination may not be performed.

12. True or False: Flunitrazepam (Roypnol) and gammahydroxybutyrate (GHB), known as "date rape"

drugs, are the most common substance involved in drug-facilitated sexual assault.

- a. True
- b. False

13. In cases of sexual assault, testing for sexually transmitted diseases and other infectious disease should be done

- a. only when the victim lost consciousness during the assault.
- b. in all cases.
- c. if the victim has symptoms of a sexually transmitted disease.
- d. on a case-by-case basis.

14. When a healthcare provider collects sample that have blood or body fluids or are suspected of having blood or body fluids, he or she should

- a. label the sample as *Biohazard*.
- b. immediately freeze the sample to preserve it.
- c. mark it as unknown until the contents are determined.
- d. label it as a blood sample.

15. The HPV (human papillomavirus) vaccination is recommended for female survivors

- a. 9-21 years of age.
- b. the quality of the forensic evidence.
- c. who have not been vaccinated.
- d. 16 years old or younger.

CORRECT ANSWERS:

1. The term forensic means, in part

- a. application of scientific methods to the investigation of a crime.

- 2. True or False: Forensic evidence collection is mandatory after a sexual assault.**
- b. False
- 3. A forensic examination can only be done if**
- b. the patient has given informed consent.
- 4. Someone who has suffered a sexual assault should be asked if she/he**
- b. defecated or urinated after the incident..
- 5. Someone who has suffered a sexual assault should be asked**
- d. if she/he lost consciousness at any time during the assault.
- 6. Which of the following is correct?**
- a. There is no absolute time limit for collecting forensic evidence after a sexual assault.
- 7. Which of the following is a basic principle of forensic evidence collection?**
- b. Avoiding contamination.
- 8. Toxicological testing is recommended if**
- c. the survivor of a sexual assault reports loss of consciousness.
- 9. One aspect of the chain of custody rule is that it documents**
- d. where evidence has been and who has had possession of it.
- 10. Sexual assault evidence kits must be _____ or their integrity can be questioned.**
- a. properly labeled and sealed.
- 11. If the patient is less than 16 years of age**
- c. a parent or legal guardian must sign the consent.

- 12. True or False: Flunitrazepam and gammahydroxybutyrate, known as “date rape” drugs, are the most common substance involved in drug-facilitated sexual assault.**
- b. False
- 13. In cases of sexual assault, testing for sexually transmitted diseases and other infectious disease should be done**
- d. on a case-by-case basis.
- 14. When a healthcare provider collects sample that have blood or body fluids or are suspected of having blood or body fluids, he or she should**
- a. label the sample as *Biohazard*.
- 15. The HPV (human papillomavirus) vaccination is recommended for female survivors**
- a. 9-21 years of age.

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The reference section of in-text citations include published works intended as helpful material for further reading. Unpublished works

and personal communications are not included in this section, although may appear within the study text.

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