Forensic Evidence Collection for Nurses

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Objectives

By the end of this educational encounter, the nurse will be able to:

1.Identifiy basic steps in evidence collection.

2. Recognize the importance of chain of custody.

3. Recognize the need for all nurses to be familiar with evidence collection.

Introduction

The purpose of this course is to acquaint the nurse with evidence collection for nurses and give the nurse a working knowledge of the steps involved to preserve the chain of custody and safeguard the validity and admissibility of evidence for legal purposes. The information contained within this continuing education activity it is not meant to serve as a comprehensive resource on evidence collection.

Forensic Nursing- The application of nursing science to public or legal proceedings.

Forensics- pertaining to the law

Forensic Science

Forensic science is not just one discipline, but is composed of scientific knowledge from a wide variety of scientific areas. The knowledge from these many fields of science come together with the disciplines of law and justice to

create forensics. Forensics deals with the recognition, identification, and evaluation of evidence collected in criminal investigations.

There are three main areas of forensics:

Biology: the investigation of crimes against people. Involves the collection of body fluids, hairs, and fibers among other types of evidence from living sources.

Drugs and Toxicology: involves criminal and non-criminal deaths as well as crimes associated with the use of drugs such as drunken driving, overdose, or crimes committed while intoxicated.

Chemistry: involves the identification and analysis of paint chips, drugs, glass, or other chemical compounds to determine their composition and origin.

Forensic Nursing

Forensic nursing skills are needed by nurses in every healthcare setting; the need for forensics in nursing is not limited to just nurses who choose to specialize in this field of medicine. Every patient may be a forensic nursing case before you are able to assess them and determine their medical problems and nursing care needs. In the ER, you may encounter rape victims, child abuse and elder abuse as well as domestic violence cases. There may be hit and run accidents or gunshot wounds. Victims of hit and run accidents and gunshot wounds are likely to make it into an OR where you might be working, or sent home with complex dressings that you will need to teach and monitor as a home health nurse. In all these scenarios, your evidence collection (and think about it, your assessment alone can be evidence) can make or break a case for a patient who has been the victim of a crime; or worse yet committed the crime.

The forensic skills that are required by all nurses are basic principles of evidence collection, chain of custody, and documentation of forensic findings (Stowkowski, 2008). Collecting and preserving evidence is a nurses legal, ethical, and professional responsibility. Some facilities have the luxury of having a specialized forensics nurse on staff, but this is not the norm; usually this responsibility falls to the nurse caring for the patient.

When staff lack proper education, these duties may be perceived by the nurse as a burden, and vital evidence that could make or break a case for a patient may be lost as a result. There are two standards of care established by the Joint Commission that require nurses to identify abuse and neglect and assess patients within the context of the requirements. This standard makes it mandatory for all nurses to preserve evidence and support future legal actions in the cases of physical assault, rape, sexual molestation, domestic abuse, child

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abuse, or neglect, and elder abuse or neglect. All nurses must know how and when to make appropriate referrals for the care of such victims.

Nurses are often the first health care professional to see patients who are victims of crime or accidents. The procedures involved in collecting of forensic evidence can add to the trauma already experienced by patient. A nurse who is sensitive to the emotional state of the victim can gain the trust of the patient and preserve sensitive evidence that otherwise might be lost.

Forensic nursing has evolved as it was realized that evidence could be destroyed in caring for patients when accident or crime victims were brought into the emergency room. Before the awareness of the need to preserve legal evidence, nurses often inadvertently destroyed evidence by using shears to cut away a patient's clothing, often starting at the entrance of a bullet wound or stab one wound. Evidence collection bags were not yet a part of trauma room supplies. Cleaning of patients to remove blood and assess wounds often destroyed valuable evidence.

Within the last fifteen years, the role of forensic evidence in the courts has been elevated. Nurses are increasingly developing professional relationships with police to assist in the preservation and collection of evidence. This places a greater demand upon nurses to be familiar with the rights of both victims and suspects, and to be cognizant of local state and Federal laws pertaining to the reporting of crimes and the collection of evidence.

Prioritizing care remains a nursing responsibility; lifesaving intervention should not be delayed in order to collect forensic evidence. However, the nurse must be able to recognize and not destroy what may be the evidence of a crime. The nurse is also responsible for maintaining the chain of custody for evidence collected. Every trauma patient should be considered a forensic patient until proven otherwise.

Forensic evidence collection is a systematic process that follows state and Federal guidelines. The references pertaining to evidence collection should be readily available in every setting. Most evidence collection kits will contain instructions for using the items contained within them.

Before beginning the evidence collection procedure, informed consent from adults should be obtained. The consent should advise the patient what evidence will be collected including photography if planned and who the recipient of the evidence will be. The content of the consent form should also address confidentiality issues.

History

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The evidence collection process begins with taking a thorough history. This allows for the formulation of a diagnosis and treatment plan and to provide a procedure to determine the type of evidence that needs to be collected. The interview should begin by taking a thorough history of how the injuries were sustained and relevant medical conditions that the patient may have. Knowledge of the details surrounding the crime such as where on the body the victim was hit or the use of restraints will direct examination and assist in the retrieval of evidence.

The medical record is a tool that may result in the conviction of an assailant if the case ever goes to court. Clearly document all findings, interventions, and actions in a legible manner.

Record what the patient says verbatim enclosing in quotation marks as needed. Record a description of the incident as the patient relates it, and history or incidents of prior abuse if applicable.

The nurse should document statements exactly as they are made without bias, alteration, or interpretation. In order to obtain the most information, open-ended questions should be used.

If the patient is reluctant to speak frankly or it seems they are not telling all the truth document the patient behavior using objective language.

Include other areas of physical or mental concern that may relate to the abuse.

Include the name and as much demographic information as possible about the abuser and their relationship to the victim.

Photography

Document injuries as completely and thoroughly as possible noting location, size, shape, color, and apparent age. Also, include anatomical charts and color photographs of the injuries before treatment.

If photographs are taken, attach a consent form to the chart and use a Polaroid or digital camera to take the images. One photograph should be a full body shot that includes the victim's face. This clearly links the injuries to the victim. Include a torso image and close-ups of all bruises and wounds. Include two shots of each injury taken from two different angles with a reference device such as a ruler in the picture to indicate size of the wounds.

On the back of the photograph write the patient name, medical record number, date and time of the photograph, name of the photographer, location, and names and titles of witnesses. The photographer should sign the photograph.

One the back of the photograph indicate the location of the injury and the subjects stated cause of injury. Torn and damaged clothing also may be photographed. Document injuries not clearly indicated by photographs on a body

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chart. Preserve any damaged clothing, jewelry, or weapons using the chain of evidence protocol.

If the patient has been sexually assaulted, take care to preserve any evidence and follow protocols for examination and collection of specimens (Burnett, 2006).

When feasible, photographs should be taken before wounds are treated. Photographs should never be used as a substitute for accurate and thorough medical documentation. If the patient has been sexually assaulted, and has wounds to the genital area, careful draping of the patient and close up photography of the injuries can preserve patient dignity. Be certain to document the patient's name and the exact location of the injury on the photograph.

Describing and Diagramming

A written description of assessment findings including details about the patient injuries must be made according to an institutional policy. Precision is important wounds should be measured in centimeters and described according to size, shape, appearance, and location using a readily recognized landmarks. Signs of abuse or neglect can be subtle and may not be immediately recognized. For elderly patients, fractures, abrasions, decubitus ulcers, or dehydration should be documented because these can be signs of abuse or neglect.

The descriptions of wounds should be made using medical terminology and should be specific and accurate. A laceration is a tear of the skin or tissue that occurs when external blunt force is applied. A laceration has marginal abrasion and the tissue bridging, where as a cut severs the tissues cleanly and there is no bridging. The nurse should not attempt to determine the age of the wound one based on the color of bruising present. Also, if bullet wounds are present do not attempt to differentiate between the entrance and exit wounds.

A body charts should be used to describe the exact location of a person's injuries. Diagrams are visual supplements to written assessment findings. Drawings are also important to show the relationship of injuries one to another and provide a pattern of wounds present.

Documentation that best supports forensic evidence will reflect:

Objective and detailed information. Direct quotes using quotation marks as often as possible (even if a patient uses vulgar terms or slang words that describe the event). Avoiding paraphrasing, as it will detract from the patient's credibility. Using the patients own words without medical terminology or grammatical corrections will help to establish the patient's history. Avoiding pejorative documentation such as the word alleged; alleged can imply the

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possibility that the patient's statements might not be true (use direct quotes whenever
possible).

Remember that documentation is an important part of the chain of evidence and should include:

Site and time of assault.
Nature of physical contacts.
Race and number of assailants.
Relationship to assailant(s).
Weapons and restraints used.
Actual and attempted penetration of which orifice by penis, objects or fingers.
Ejaculation, if known, and where.
Use of condom.
Activities of the victim that may have destroyed evidence, such as bathing, douching,
bowel movement.
Consenting sex within the last 72 hours and with whom.
Use of tampon.
Change of clothes.
Contraceptive use.
Current pregnancy.
Allergies.
Victim's general appearance and response during exam.
Physical injuries.

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Collecting Physical Evidence

Dr. Edmond Locard developed a theory of evidence called Locard's principle of exchange. This theory states that criminals leave marks of their passage while on the other hand at the same time by inverse action take with them on their body or clothing evidence of his deed. Whenever there is contact between two objects mutual exchange of material occurs Physical evidence is defined as any object or part of an object showing that a crime has occurred or establishing a relationship between a victim and a perpetrator. Physical evidence can be tangible or transient such as redness or trace body fluids.

Clothing, footwear, hairs, fibers, stains, bullets, sharp objects, physical injuries, and laboratory specimens are all classified as physical evidence. Gloves are always worn during the handling of all physical evidence. Gloves should be changed often during evidence collection.

Label all packages used to collect evidence with the date, time, patient's name description, and source of the material including the body location. Also, include

the name of the healthcare provider, and names with initials of everyone who handled the material.

Collecting Forensic Evidence from Clothing

The clothing must be removed carefully because it can contain hair, fibers, or other trace evidence. If the patient is ambulatory, they should remove one item of clothing at a time while standing over a clean sheet or piece of paper placed on the floor. This sheet should be covered with a second clean sheet or piece of paper to capture evidence that may fall from the clothing of the person. This top sheet is folded and packaged separately.

If clothing must be cut off, out cutting through any tears, holes, or defects in the fabric.

Avoiding excessive, shaking, or handling, place each item in a bag as it is removed and seal the bag. Each item must be placed in a separate paper bag to prevent cross-contamination. Plastic bags are not used because moisture can form within the bag and degrade the evidence.

If any hair, fibers, or debris clings to the clothing, do not remove it,

Air-dry any wet clothing before it is packaged.

Place protective paper between stains to prevent them from touching.

Shoes are also included in the collection of clothing.

Collection of Body Evidence

Forceps with plastic coated tips are used to carefully remove hair, fibers, or other debris from the body. Each item is placed in a separate paper envelope. Dry surface debris is gently scraped onto a glass slide.

Any sharp objects that are retrieved such as glass, needles, or knives are placed in a double peel pouch. A double peel pouch is a heavy polyethylene pouch with a tamper evident seal. Plastic, cardboard, or glass containers may also be used for the collection of sharp objects.

Bullets should be wrapped in gauzed to preserve the evidence and then placed inside another container such as a cup, envelope, or bag. Do not use metal instruments to touch bullets. If gunpowder residue is present, use a piece of tape to collect the residue and then apply it to a glass slide.

Evidence that is on the hands can be preserved until processing by securing paper bags over the hands.

Evidence beneath the fingernails may be collected by swabbing, scrapping, or clipping the fingernails. The evidence is placed into paper envelopes, if paper envelopes are not available, then the fingernails or scrapings along with the swab

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or orange stick used to collect them are placed in the center of a clean piece of paper, which is folded and sealed.

Comb the hair carefully to remove evidence that cannot be visibly seen.

Body Fluids

Use a high intensity lamp to visualize stains on the skin or the presence of saliva, semen, urine, or blood. Dry secretions are collected by moistening a swab and rubbing over the stains. The swab is air dried before packaging.

Bite marks are first photographed and then swabbed.

If the victim has been sexually assaulted, swab body orifices for evidence, collecting as much secretion as possible. The samples should be taken before drinking, smoking, eating, or voiding to prevent contamination and loss of evidence.

Laboratory specimens for toxicology screens and DNA reference samples should be collected from the victim.

In many cases after a rape or molestation, seminal fluid may not be present. This may be due to a variety of factors. Rapists or molesters may use foreign objects or fingers to commit the rape or molestation. As many as 40% of rapists are thought to use condoms during the commission of their crime. Another 34% are thought to be sexually dysfunctional. Seminal fluid is usually examined for the presence of sperm, but sperm will not be present if the perpetrator has had a vasectomy. The presence of seminal fluid can still be verified by measuring the amount of acid phosphatase present. Acid phosphatase is usually found in high levels in seminal fluid but in low levels in vaginal secretions.

Chain of Custody

Chain of custody refers to the paper trail that ensures the integrity of evidence, by documenting who has handled the evidence in every step of collection and processing. The chain of custody will be closely scrutinized in court, and if it is broken or compromised, may be subject to challenge and allegations of tampering or mishandling.

The chain of custody begins as soon as the nurse locates and collects evidence. Regardless of whether the nurse has proper training in forensics, the nurse must initiate and maintain the chain of custody for this evidence. Clothing that is left lying in the ER room unbagged or bullets that are sent to pathology are example of situations in which chain of custody can be questioned. The more people that handle evidence, the more likely it is that the evidence will be compromised.

The chain of custody is initiated by labeling each item of sealed evidence with the patient's name, the item description, the source of the material including the anatomic location, the name of the person sealing the evidence along with the

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date and time, the names of the persons releasing and receiving the evidence and the time that the transfer took place. The chain of custody should be kept as short as possible. The evidence kits usually contain chain of evidence forms. When there are many individual pieces of evidence an evidence disbursement form may be used to document the transfer of evidence.

Collected evidence must remain with the nurse, in plain view, or in a secured location to maintain the chain of custody. Evidence must never be left unattended or be handled by other staff, patients, or persons in the ER. The sealed evidence bags may be stored in a secure location until transfer to authorities is completed. The best place to secure evidence is in locked storage boxes and refrigerators that are located in a room with limited access and requiring key entry. Evidence that is wet must be picked up immediately by law enforcement, as it cannot be placed in a lock box. The Final transfer of the evidence is documented in the patient's medical record.

Appearing In Court

The nurse who applies forensic principles by recognizing and preserving evidence must also be able to be present when the evidence goes to trial. The patient who has been the victim of a criminal act has the right to expect that their health care providers are prepared and capable witnesses. One of their purposes for appearing in court is to verify the chain of custody of the evidence, and to authenticate the process of evidence collection.

The need to testify in court can be an extremely stressful event. Cases can be decided on the credibility of the witnesses. The witness should speak directly to the jury, making eye contact with them. Listen carefully to the questions and provide only the information that is asked for without volunteering additional information unless clarification is requested. Always consider your response carefully before speaking.

The moment of preparation for going to court begins when evidence collection is initiated. Nurses work with the risk management of their institution and the prosecuting attorney to prepare for the trial. It is important that the prosecutor and the nurse giving testimony to have the same understanding of the nurse's role and responsibility and appreciation of the evidence, and the type and amount of information that the jury needs to hear. The nurse's individual preparation involves reviewing the chart and the case record to avoid fumbling for information during testimony.

Other Considerations

If you are the primary nurse caring for a rape or molestation victim, there are other patient concerns that you must address in relation to the assault in addition to the collection of evidence.

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Sexually transmitted diseases should be tested for at the time of treatment for the assault. While this will not prove that the victim was assaulted, as the STD may have been acquired prior to the rape, it is still essential in the physical and emotional care of your patient. STD evidence is no longer considered evidentiary proof of sexual assault in adults or teenagers; it still is in the cases involving children.

The most frequently diagnosed infections among women who have been sexually assaulted are Trichomoniasis, gonorrhea, and chlamydial infection. Hepatitis B, HIV, Hepatitis C, and pregnancy are also considerations for the health care provider.

The victim should be counseled and offered appropriate post exposure prevention as deemed necessary and appropriate by the physician. A follow up exam should be completed in two weeks to evaluate any symptoms that the victim may be having and to finish any post exposure prevention treatment that may be necessary. It is recommended that testing for HIV and syphilis be obtained at six weeks, three months and six months following the assault.

After completion of the necessary tests and treatment, most medical facilities are able to offer the victim a private place to shower, change clothes and brush teeth. The victim may be afraid to return home alone so the nurse or examiner should offer to call a friend or relative to drive the victim home. All home care and follow up instructions should be provided to the victim in written form as verbal instructions may not be remembered due to shock. In some instances, the victim may need alternative housing arrangements for safety, such as staying with friends or relatives, or a shelter.

Other major areas of consideration include crisis intervention, mental health assessment, and follow up counseling. Community resources that can provide on going assistance to the victim should be provided whenever possible.

Assess the victim's safety for returning home. Are they suicidal or homicidal? Is the victim going to be in danger if they return home? Offer the victim immediate referral to a domestic violence shelter. Are children involved? In some states domestic violence falls under mandated reporting and if a child is injured or in danger mandated reporting is in force in most states. Follow you state's mandated reporting guidelines.

Victims of assault often experience ongoing fears and anxieties that may severely affect their overall functioning on a daily basis as well as their personal and social relationships. The victim should be strongly encouraged to receive counseling.

Conclusion

Forensic nursing is a new and exciting field that has become recognized as a nursing specialty in the last twenty years. However, some states such as Texas

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are concerned about the standard of care that assault victims receive in rural areas where certified SANE nurses are not available. Therefore, they have implemented continuing education guidelines that mandate anyone working in an ER as either their home unit, floating, contracted, or other duties that involve functioning in the ER setting. This is a one-time requirement per nurse beginning 9/1/06; however, compliance is ongoing for any nurse who begins practicing in an ER setting, as there is no expiration date for this requirement under Rule 216.3(6).

While SB39 [79th Regular Session, Texas Legislature (2005)] did not include language limiting "forensic evidence collection" to only sexual assault victims, a review of the Bill analysis and history demonstrate that this was the original intent of this legislation. The Board believes the generic nature of the final bill language encompasses broader training in forensic evidence collection. Thus, nurses whose practice settings include the ED are encouraged to seek forensic CE offerings that are appropriate for the types of patients seen in the nurse's clinical practice.

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