MEDICO-LEGAL CARE FOR VICTIMS OF SEXUAL VIOLENCE

Submitted by Child Witness Institute

KEY CONCEPTS	
Drugs and sexual violence	Drug-facilitated sexual violence
Medical forensic examinations	Consequences of sexual violence
Conducting physical examinations in sexual violence cases	Conducting genito-anal examinations
Forensic medical assessment of victims of violence	Equipment necessary for medical forensic examinations

The following is a summary of the World Health Organisation (2003) *Guidelines for medico-legal care for victims of sexual violence*.

DRUGS AND SEXUAL VIOLENCE[1]

Alcohol has, for a long time, been used to facilitate non-consensual sexual intercourse. More recently, there has been greater use of other drugs, like flunitrazepam (Rohypnol) and other benzodiazepines, gamma-hydroxybutyrate (GHB), ketamine, cocaine, methamphetamine and marijuana, to drug and sexually violate victims.

It is important for health workers to be aware of the possibility of drug-facilitated sexual violence and to identify signs that are indicative of it. The following symptoms in victims are suggestive of drug-facilitated sexual violence:

- memory loss
- disorientation and confusion
- impaired conscious state
- impaired coordination
- impaired speech i.e. slurring
- unexplained signs of trauma, particularly genital trauma
- intoxication that does not correspond to the alcohol consumption stated
- unexplained loss or rearrangement of clothes
- talking about having an “out-of-body experience.”

If it is suspected that drugs have been used to facilitate sexual violence, the following points are important:

- any alteration in conscious state requires that the victim receive immediate access to full resuscitation services, usually available in emergency departments
- specimens (e.g. blood, urine) must be taken as soon as possible to detect any substances that may have been administered without the victim’s knowledge.

[1] World Health Organisation. 2003. Guidelines for medico-legal care for victims of sexual violence. Geneva. 8.

HEALTH CONSEQUENCES[2]

Health consequences of sexual violence include both physical and psychological effects, both in the short term and the long term.

Physical consequences

A person who has experienced sexual violence can suffer a wide range of physical injuries, both genital and non-genital. Physical injuries vary from mild to extreme, as in the case where the victim dies as a result of the injuries. Rape victims are also at an increased risk of the following:

- unwanted pregnancy
- unsafe abortion
- sexually transmitted infections, including HIV/AIDS
- sexual dysfunction
- infertility
- pelvic pain and pelvic inflammatory disease
- urinary tract infections.

Genital injuries: The most common location for genital injuries would be the posterior fourchette, the labia minor, the hymen and/or the fossa navicularis. The most common types of injuries include:

- tears
- bruising
- abrasions
- redness and swelling.

Non-genital injuries: Other injuries received during the sexual assault would include:[3]

- bruises and contusions
- cuts, stab wounds
- ligature marks to ankles, wrists and neck
- pattern injuries (hand prints, finger marks, belt marks, bite marks)
- anal or rectal trauma.

Psychological consequences

Psychological reactions to sexual violence vary from individual to individual and include the following:[4]

- rape trauma syndrome
- post-traumatic stress disorder
- depression
- social phobias
- anxiety
- increased substance use or abuse
- suicidal behaviour.

In the longer-term, victims may have the following complaints:

- chronic headaches

[2] Ibid. 12.
[3] Page 13.
[4] Page 13 – 14.

- fatigue
- sleep disturbances i.e. nightmares, flashbacks
- recurrent nausea
- eating disorders
- menstrual pain
- sexual difficulties.

MEN AND BOYS AS VICTIMS OF SEXUAL VIOLENCE

In the case of males, sexual violence is experienced in the following ways:[5]

- receptive anal intercourse
- being forced to penetrate another
- forced masturbation of the perpetrator
- forced masturbation of the victim
- receptive oral sex
- being forced to perform oral sex.

Underreporting of sexual violence against men is very high and much higher than that of women. Reasons for this would include:

- men reluctant to report
- extreme embarrassment
- stigma
- context in which it occurs may inhibit reporting (prison or armed forces).

Men have the same physical and psychological responses to sexual violence as women, including:

- fear
- depression
- suicidal ideation
- anger
- sexual and relationship problems.

Men also experience Rape Trauma Syndrome in the same way that women do, but tend to be more concerned about :

- their masculinity
- their sexuality
- what others are thinking of them i.e. others will think that they are homosexual
- the fact that they were unable to defend themselves and prevent the rape.

[5] Page 16.

SERVICE PROVISION

Priorities[6]

The overriding priority must always be the health and welfare of the patient. The primary health care of a patient takes precedence over the provision of medico-legal services. This means that the treatment of injuries, assessment and management of pregnancy and sexually transmitted diseases must be taken care of first. Performing a forensic examination without addressing the primary health care needs of the patient is negligent.

The following priorities are central to providing services to victims of sexual abuse:

- Patients must be treated in such a way that they are able to maintain their dignity, especially as they have been forced to feel humiliated and degraded.
- Medical and forensic services must be offered in such a way so as to minimise the number of invasive physical examinations and interviews.

Setting

Consultations should be conducted at a place where there is optimal access to the full range of services and facilities that may be required by the patient.

- Appropriate, good quality care should be available to all victims of sexual assault.
- Services should be able to be accessed 24 hours a day or, where not possible due to a lack of resources, on an on-call basis.
- Care should be ethical, compassionate, objective and patient-centred.
- Safety, security and privacy are important aspects of service provision.

The medico-legal and health care components should be provided simultaneously at the same location and preferably by the same health practitioner.[7] Where these services are offered at different times, in different places and by different people, it places a heavy burden on the victim and is an inefficient process. In practice, victims of sexual violence present themselves at any point in the health care system and, therefore, all health care facilities should be able to recognise sexual abuse and provide services, even if it is only to refer the patient to appropriate services.

Timing[8]

The timing of the physical examination will depend on what is best for the patient. Where, for instance, the patient has been injured, it would be necessary to deal with the injuries first. However, the physical examination should be conducted as soon as possible after the patient presents. Delays could result in:

- Lost therapeutic opportunities i.e. not being able to provide emergency contraception
- Changes to the physical evidence i.e. injuries healed
- Loss of forensic material i.e. blood and semen samples.

Range of services[9]

In order to provide comprehensive services to victims, it is necessary for health workers to develop relationships with other government departments in order to provide a multi-disciplinary service to

[6] Page 17.
[7] Page 18.
[8] Page 18.
[9] Page 20 - 21.

victims. Although health workers are primarily concerned with health care services, they are an integral part of the interdisciplinary team. Interdisciplinary teams include:

- Counselling personnel
  These services can be provided by specially trained counsellors, social workers, psychologists, or community-based support groups. In the absence of trained counsellors, the health worker may have to take on this role.
- Laboratories
  Medical and forensic laboratories are responsible for analysing specimens taken from patients and examining evidential specimens. These services are usually provided by separate facilities.
- Hospitals
  Sexual assault health services are usually provided within a hospital setting in order to provide immediate health care where this is required. If these are not available, hospitals can be used to provide emergency or ancillary medical care.
- Police
  The police are usually tasked with ensuring that forensic medical examinations are conducted. Some police forces have dedicated units that deal with cases of sexual violence.
- Criminal justice system
  If a case proceeds to court, the health worker will come into contact with a number of individuals involved in the court process and may be required to testify in court.

Experience[10]

In order to conduct a medical forensic examination, it is essential that the health worker has the necessary knowledge and skills. In order to give an opinion as an expert in court, the health worker has to show that they are indeed an expert. Expertise is acquired in the following way:

- Obtain training in medico-legal matters
- Have access to written material to refer to during and after training
- Perform several (ideally 15 – 20) forensic examinations under supervision
- Perform a forensic examination alone.

Equipment[11]

The following list of equipment would be required for the provision of a full range of medical and forensic services to victims of sexual violence. It includes both essential items necessary for to provide a minimum level of care as well as other items that could be included where resources are available. Equipment would include:

Fixtures:[12]

- Examination couch
- Desk and chairs
- Filing cabinet
- Refrigerator and cupboard
- Light source
- Washing facilities and toilet: facilities for the victim to wash and for the health worker to wash their hands
- Telephone

General medical items:

[10] Page 56.
[11] Page 22.
[12] Page 25.

- Tourniquet
- Syringes, needles and swabs
- Various blood tubes
- Various sized speculums
- Sterilizing equipment
- Examination gloves
- Pregnancy testing kits
- Proctoscope/anoscope: medical instrument with a lamp for examining the anus or lower part of the rectum or for carrying out minor medical procedures
- STI collection kits
- Lubricant, saline
- Sharps container for storing medical waste
- Scales and height measures for children

Forensic medical items:

- Swabs for collecting foreign material on the victim i.e. semen, blood, saliva
- Containers for transporting swabs
- Microscope slides for plating of swabs
- Blood tubes for DNA or toxicology analysis
- Urine specimen containers for pregnancy and toxicology testing
- Sheets of paper or drop sheets for the patient to stand on while they are undressing to collect loose, fine materials
- Paper bags for collecting clothes or wet items
- Plastic specimen bags for the transport of other dry forensic items
- Tweezers, scissors, comb for collecting foreign debris on the skin or hair of the patient

Treatment items:

- Analgesics
- Emergency contraception
- Suture materials
- Tetanus and hepatitis prophylaxis/vaccination
- STI prophylaxis

Linen:

- Sheets and blankets for the examination couch/bed
- Towels
- Clothes to replace any damaged items or items that have been retained for forensic purposes
- Patient gowns
- Sanitary items like tampons or sanitary pads

Stationery:

- Examination record for recording findings
- Labels for attaching to the different specimens
- Consent forms
- Pathology/radiology referral forms for further tests
- Information brochures for patients which provides information about the service they have accessed, how to contact the treating health provider if necessary and details of follow-up and/or referral services

Sundry items:[13]

[13] Page 26 – 27.

- Camera and film for injury documentation
- Colposcope or magnifying lens for obtaining a magnified view of a wound
- Microscope to check for spermatozoa, especially where there are no laboratory facilities available.
- Swab dryer to dry forensic swabs before packaging them – swabs can be air dried provided they can be protected from foreign DNA or contamination
- Measuring device for measuring the size of wounds
- Pens and pencils
- Computer and printer
- Sterilization equipment
- Drawing materials and/or toys to keep children occupied.

When conducting forensic examinations of victims of sexual violence, the following equipment becomes relevant:

Rape kits:[14] A rape kit is a pre-packaged kit that contains all the items typically required when collecting evidentiary material from rape victims. The advantage of such a kit is that the examining practitioner has all the materials required for collecting evidence ready before beginning the examination. It also acts as a prompt for inexperienced practitioners to ensure that they do not forget to take certain specimens. It also means that the specimens are collected and packaged in a manner that is acceptable to the forensic laboratory. A disadvantage of the kits is that they can be expensive. The alternative is for the medical practitioner to make up their own customized rape kit from available stock.

Laboratory services:[15] Specimens taken from victims can be divided into 2 categories, namely those used for diagnostic health purposes and those used for criminal investigation. Specimens taken will depend on the sophistication of the services available at the forensic laboratories. For instance, if the laboratory cannot do DNA tests, then there is no point in collecting these specimens.

Examination records:[16] There are different ways of recording the details of a consultation. Usually there is a standard form to be completed, which is the most convenient and reliable method. Completed records must be stored securely and accessed only by authorised staff to protect the confidentiality of the patient.

Colposcope:[17] This is a binocular, low-powered microscope with a light source. Most of them have a camera attached that allows findings to be photographed or videotaped. It is particularly useful for the examination of children. Colposcopes are expensive and require some skill, but in their absence genito-anal examinations can be conducted by an experienced person using a fixed light and hand-held lens.

ASSESSMENT AND EXAMINATION OF ADULT VICTIMS OF SEXUAL VIOLENCE

Introduction

Victims of sexual violence should be offered a full medical-forensic examination, which consists of the following components:[18]

- initial assessment, including obtaining informed consent
- a medical history, including an account of the sexual assault
- a full physical examination

[14] Page 23 – 24.
[15] Page 24.
[16] Page 24.
[17] Page 24.
[18] Page 30.

- detailed genito-anal examination
- recording and classifying injuries
- collection of indicated medial specimens for diagnostic purposes
- collection of forensic specimens
- labelling, packaging and transporting of forensic specimens to maintain the chain of custody of evidence
- chain of custody of the evidence
- therapeutic opportunities
- referrals and follow-up care
- storage of documentation
- provision of a medico-legal report.

Male victims of sexual violence should be triaged in the same manner as female victims and the same procedures should be followed for obtaining consent, taking a history, conducting the physical examination (although the genital examination will be different) and ordering diagnostic laboratory tests. The procedure would include:

- full body examination
- thorough examination of the genito-anal area
- treatment of any injuries.

Men should also be treated for STIs, hepatitis B and tetanus and should be informed about, and offered, a HIV test and the option of post-exposure prophylaxis, if available. Men also need to receive follow-up care for wound healing, any prescribed treatments (including those for STIs), completion of medications and counselling.[19]

Victims of sexual violence require an unusual degree of sensitivity and understanding and the medical forensic examination is particularly traumatic for them. Handling patients who have been subjected to sexual violence requires a broad range of skills, including:[20]

- knowledge of normal human sexual responses, genito-anal anatomy and physiology
- knowledge of medical and colloquial terms for sexual organs and sexual acts
- good communication skills
- a basic knowledge of the dynamics of sexual violence
- an understanding of the legal issues surrounding sexual crimes
- an understanding of relevant cultural and/or religious issues
- empathy and sensitivity.

Initial assessment[21]

When a victim of sexual violence presents, they should be given immediate access to a trained health worker.

- Acute health care needs are the primary consideration at this point.
- Victims who have serious or life-threatening injuries will require acute medical or surgical care.
- The safety, health and well-being of the patient always takes priority over all other considerations and, therefore, primary consideration is to take care of any injuries first.
- Where injuries are less severe and a wait is unavoidable, patients should not be left alone and should have someone with them to provide comfort and support.

[19] Page 31.
[20] Page 31.
[21] Page 32.

Victims are often extremely emotional and in a heightened state of awareness after an assault so they are often hyper-aware of what is going on around them. This means that they are very aware of kindness shown to them or, conversely, any insensitive comments made by personnel. It is, therefore, very important that health care workers be very sensitive and not contribute to any further trauma or revictimization of the patient. The following must be taken into account:

- Choose words that are gentle, kind and soothing.
- Do not be judgmental or critical.
- Treat all victims with respect and dignity irrespective of their race, religion, social or cultural status, sexual orientation, lifestyle, sex or occupation.
- Validate the patient's feelings – many victims are afraid of reporting because they fear that they will not be believed or that they will be blamed so it is important to acknowledge these feelings and respond to them.
- Be aware of body language, gestures and facial expressions as these convey the beliefs of the speaker.
- Consider carefully what the victims says - it is not required that one believe what is said but one must respect what is being said.
- Remain neutral – health workers must be seen to be impartial as this is vital for court testimony.
- Be aware of becoming desensitised, which often results from repeated exposure to distressing situations and violence.[22]
- Be aware of the need to develop positive coping skills to deal with the repeated exposure to distressing events and to investigate possible support available like debriefing, for instance.

Obtaining consent[23]

Informed consent must be obtained from the patient before a medical examination can be conducted. In order for the patient to give informed consent, it is necessary that all aspects of the consultation be explained to them. This is particularly important where there is a legal obligation on the health provider to report incidents of violence against children. Patients must understand the options that are available to them so that they can make an informed decision. The patient should feel secure and not pressured or intimidated. It is important that, having experienced an assault that has been against their will, the patient is given back some control. Once the patient has been given sufficient information to enable them to give informed consent, they must sign or mark the consent form.

Taking a history[24]

The patient must be informed that, should legal action be taken against the perpetrator, any information they disclose during the examination may become part of the case. Where mandatory reporting is in force, make sure the patient understands what this means.

General medical history:

- The primary purpose of taking a medical history is to obtain enough information to assist in the medical management of the patient and to explain any subsequent findings.

[22] Page 34.
[23] Page 34.
[24] Page 34.

- The medical history should cover any known health problems, including allergies, immunization status and medications. Useful information would include:[25]
    - Information about their general health
    - Whether they had seen a nurse or doctor recently
    - Whether they had been diagnosed with any illness recently
    - Whether they had had any operations
    - Do they suffer from any infectious diseases
    - Information about medication:
        - Do they have any allergies
        - Do they take any medication prescribed by a health worker
        - Do they take any herbal preparations
        - Do they take any other medication

Details of the patient's medical history should be recorded in a standard examination record as this acts as a guide for the examiner by prompting relevant questions and prevents the omission of important details.

Gynaecological history:[26]
Gynaecological history is of particular relevance in cases of sexual assault. Relevant information would include:

- Dates of last menstrual period
- Sexual relationships before the event
- Number of pregnancies, where applicable, and mode of delivery
- Number of children and complications during delivery
- Pelvic surgery
- Use of contraception and type, where applicable
- Current sexual partner
- Date of last consensual intercourse

Assault[27]
It is important to obtain an account of the violence for the following reasons:

- To detect and treat acute injuries
- To assess the risk of adverse consequences, like STIs or pregnancy
- To guide the collection of specimen
- To allow documentation
- To guide the forensic examination

There are particular guidelines for conducting a forensic interview. The patient should be given an opportunity to tell in their own words what happened to them. Note the following points:

- Document the patient's account of the assault without interruption
- Only ask questions once they have completed their account
- Avoid why-questions as they tend to imply blame
- Use open-ended, non-leading questions

[25] Page 35.
[26] Page 35.
[27] Page 36.

- Be aware that some patients may avoid embarrassing and intimate details or may find it very difficult to relate what took place
- Explain the purpose of the questions i.e. that the focus of the health worker is to find out whether there has been any physical contact between the victim and their assailant for the purposes of gathering forensic information
- Address all questions in a patient, empathic, non-judgemental manner:
    - Use a calm tone
    - Maintain eye contact but don't stare
    - Don't express shock or disbelief
    - Avoid any victim-blaming statements i.e. why were you alone? What were you wearing?
- Some victims experience involuntary orgasms during a sexual assault. This not only causes great confusion for the victim, but increases their trauma because they feel betrayed by their own bodies. This is an involuntary response of the body and should not be seen as implying consent.[28]

The following information must be documented:[29]

- the date, time and location of the assault
- a description of the type of surface on which the assault occurred
- the name, identity and number of assailants
- the nature of the physical contacts and detailed account of violence inflicted
- any use of weapons and restraints
- use of medications/drugs/alcohol/inhaled substances
- how clothing was removed.

The following information about the actual or attempted sexual activity should also be documented:[30]

- vaginal penetration of victim by offender's penis, fingers or objects
- rectal penetration of victim by offender's penis, fingers or objects
- oral penetration of victim by offender's penis or other object
- oral contact of offender's mouth with victim's face, body or genito-anal area
- forced oral contact of victim's mouth with offender's face, body or genito-anal area
- ejaculation in victim's vagina or elsewhere on the victim's body or at the scene
- use of condoms and lubricant .

Any subsequent action by the patient that could interfere with the evidence must also be documented. This could include, for instance, the fact that the patient bathed, showered, wiped themselves, changed clothes, used a tampon or in any other removed or contaminated possible forensic evidence. It is also important to record the details of any symptoms that have developed since the assault, like genital bleeding, discharge, itching, sores or pain, urinary symptoms, anal pain or bleeding and abdominal pain.[31]

Physical examination[32]

[28] Page 36.
[29] Page 36.
[30] Page 37.
[31] Page 37.
[32] Page 37.

It is vitally important to take time to explain the purpose of the examination and the procedures that will follow to the patient before beginning the physical examination. The following points should be noted:[33]

- Explain the procedures in a simple manner so that the patient understands.
- Give the patient an opportunity to ask questions.
- If the patient wishes a family member of friend to be present during the examination for support, allow them to do so. There should always be a chaperone present, especially if the examiner is male. The chaperone could be a trained female health worker and their role is to provide comfort and support. They can also offer a form of protection to the health worker in the event that the patient alleges that the health worker behaved inappropriately or unprofessionally.
- Throughout the physical examination the patient should be informed of what is happening and their permission should be sought. Let them know when and where touching will take place, and show and explain the instruments and collection materials.
- A patient may refuse to have the physical examination or only part of it, but their wishes should be respected since granting them some control over the process is important for recovery.
- The examination should be performed in a space that is light, warm, clean and private so that conversations cannot be overheard. There should be separate areas for undressing, whether behind a screen or behind a curtain, and a gown must be provided.
- If the victim is still wearing the clothing that was worn during the assault and forensic evidence has to be collected, then the patient must be asked to undress over a white sheet of light paper.
- If the patient has consented to the collection of their clothing, then each item of clothing must be placed in a paper bag. The health worker must wear gloves to prevent contamination. Where clothes are retained, replacement clothes should be provided.
- Both medical and forensic specimens should be collected during the examination so that the patient does not have to undergo ay further procedures in this regard.

A physical examination should include the following steps:

- Note the patient's general appearance, demeanour and mental functioning. If the patient's mental functioning appears impaired, assess whether the impairment is recent (due to the effect of alcohol or drugs) or symptoms of a longer-term disability (as in mental disability).
- Note the patient's vital signs:
    - Blood pressure
    - Temperature
    - Pulse
    - Respiration rate.
- Conduct a full-body examination, ending with the genito-anal area.
- Note and describe in full detail any physical injuries. Use body maps to indicate the location and size of the injuries.
- Photograph any injuries, where possible.
- Order diagnostic tests where this may become necessary i.e. x-rays, CT scans.
- Draw blood samples for testing for HIV, hepatitis B, syphilis and other STIs, where applicable.
- Document all findings throughout the examination.
- Address patient questions and concerns in a non-judgmental way, using a calm tone.

[33] Page 38.

The following precautions must be taken when conducting the physical examination:[34]

- Gloves should be worn whenever there is contact with blood or other body fluids.
- It may be necessary to change gloves during the course of the examination if there is a danger of contamination.
- Gloves must be discarded at the end of the examination.
- Hands must be washed with soap and water after there has been exposure to body fluids or blood and once gloves have been removed.
- Protective masks or face shields should be worn if there is a possibility of blood or body fluids being splashed.
- Dispose of the used needles in a special sharps container.

"top-to-toe" physical examination[35]

The examination should be conducted in the following steps:

1. Note the patient's general appearance and demeanour.
    a. Start with their hands and take vital signs i.e. pulse, blood pressure, respiration
    b. Inspect both sides of both hands for injuries
    c. Check the wrists for ligature marks
    d. Fingernail scrapings may need to be collected.
2. Inspect forearms for defence injuries - injuries that occur when a person lifts their arms to ward off an attack. These include bruising, abrasions, lacerations or incised wounds. Where the patient has a dark skin, look for swelling or tenderness as bruising is sometimes difficult to see.
3. On the upper arms look for:
    a. intravenous puncture sites
    b. fingertip bruising
    c. red linear petechial bruising caused by pulling clothes roughly.
4. Inspect the face:[36]
    a. Black eyes can be subtle
    b. Look for signs of nose bleeding
    c. Check the jaw for tenderness or bruising
    d. Inspect the mouth carefully:
        i. Check for bruising, abrasions and lacerations of the buccal mucosa
        ii. Petechiae (small red or purple spots caused by bleeding into the skin) on the hard or soft palate may indicate penetration
        iii. Check for a torn frenulum and broken teeth.
        iv. Collect an oral swab if necessary.
5. Inspect the ears, as well as the areas behind the ears for shadow bruising, which occurs when the ear has been struck onto the scalp. Use an otoscope to inspect the ear.
6. Examination of the scalp may reveal tenderness and swelling which could indicate haematomas. There may also be hair loss due to pulling and can be collected in the gloved hands of the examiner or can be combed out.
7. The neck can provide a lot of forensic evidence:[37]
    a. Bruising can indicate a serious assault

[34] Page 39.
[35] Page 39.
[36] Page 40.
[37] Page 41.

    b. Imprint bruising may be present from jewellery worn around the neck or on the ears
    c. Suction-type bruising caused by bites must be noted and swabbed for saliva before they are touched
8. The examination of the breasts and the trunk must be conducted with great sensitivity and should be covered to respect privacy, only exposing the area that is being examined.
    a. Start with the examination of the back and view each shoulder separately
    b. Look for bruising
    c. Examine the breast for marks, bruises, blunt trauma or bites, examining one breast at a time and covering the other while conducting the examination
    d. If the breasts are not examined, the reason for this must be noted.
9. Next the abdomen must be examined and inspected for bruising, abrasions, lacerations and trace evidence. The abdomen must also be palpated to determine whether there are any internal injuries or to detect pregnancy.
10. The legs should be examined next:
    a. Begin with the examination of the front of the legs
    b. There are often fingertip bruises or blunt trauma, caused by the knees, on the inner thigh
    c. Bruising on the inner thigh is often symmetrical
    d. Inspect the knees for abrasions – the victim may have been pushed onto the ground, for instance
    e. Inspect the feet for any abrasions or lacerations and check for signs that ligatures may have been used
    f. Also check the soles of the feet.
11. When examining the back of the legs, ask the patient to stand, if this is possible. Where the patient is not able to stand, they will have to be asked to lift each leg and it will have to be rolled slightly to inspect each buttocks, but this is not the most effective way of conducting an examination.

Further points to note:

- Biological evidence must be collected with moistened swabs (for semen, saliva, blood) or tweezers (hair, fibres, grass, soil).
- The presence of tattoos should be documented in the examination record with a brief description of size and shape.[38]
- Obvious physical deformities must be noted.
- If these are not noted in the report, the medical examiner can be questioned in court about why they were not included.
- The use of Wood's lamps to detect semen on the skin is no longer recommended clinical practice as they do not fluoresce semen as well as previously thought. The use of swabs is a more reliable method of detecting semen.

Genito-anal examination[39]

As this examination is invasive in nature, it is important to make the patient feel comfortable and relaxed. It can be very helpful to explain to the patient each step of the examination so that they know exactly what is going to happen (e.g. "I'm going to have a careful look. I'm going to touch you here in order to look a bit more carefully. Please tell me if anything feels tender.")

[38] Page 42.
[39] Page 42.

- The patient should lie on her back with her knees drawn up, heels together and legs flopped apart (lithotomy position).
- The patient can be covered with a sheet until the examination takes place so that she feels more comfortable. The sheet can be lifted in the genital area when the examination begins, leaving the other parts of the body covered.
- Lighting must be directed onto the vulval area.
- It must be borne in mind that injuries to the genital or anal regions can cause considerable pain when touched. It may be necessary to use analgesia.

A routine genito-anal examination would include the following steps:[40]

1. Examine the external areas of the genital region and anus and look for any markings on the thighs and buttocks.
    a. Inspect the mons pubis.
    b. Examine the vaginal vestibule, focusing on the labia majora, labia minora, clitoris, hymen or hymenal remnants, posterior fourchette and perineum.
    c. Take a swab of the external genitalia before attempting to do a digital examination or speculum examination.
    d. Gently stretch the posterior fourchette to see whether there are any further abrasions that would normally be difficult to see, especially if they are hidden in the swelling or within the folds of the mucosal tissue.
    e. To obtain a better view of the hymen, the labia must be pulled towards the examiner.
    f. Asking the patient to bear down can assist with visualisation.
2. If any blood is present, it must be swabbed gently to determine where it has originated from.[41]
3. A speculum examination[42] allows the examiner to inspect the vaginal walls for any signs of injury, abrasions, lacerations and bruising.
    a. A transparent plastic speculum is very helpful for seeing the vaginal walls. Trace evidence, such as foreign bodies and hairs may be found and collected.
    b. The endocervical canal can also be examined, although this is a difficult part of the examination for the patient as it may remind her of the assault. It should be performed gently and its importance carefully explained.
    c. It is advisable to warm the speculum before use by immersing it in arm water first.
    d. Traditionally the recommended technique for a speculum examination involved inserting the speculum along the longitudinal plane of the vulval tissues and then rotating it into the final position once the muscle resistance had relaxed.
    e. More recently an alternative technique has been found to be more comfortable for the patient. The broader part of the duckbill speculum is rested on the posterior fourchette which allows the dimension of the object to be anticipated by the vaginal tissues. This allows the introital tissues to relax before insertion (the same way the perianal sphincters do when the examining digit is rested at the opening before insertion). When the duckbill speculum is introduced in this way and the patient is in the lithotomy position, then the speculum can be smoothly introduced in a downward direction without having to twist it, opening the duckbills gently as it

[40] Page 42.
[41] Page 43.
[42] Page 43.

progresses. This avoids contact with the urethra, which is painful, and the cervix can be seen with ease.

f. A speculum examination should be performed as a matter of course, and is particularly relevant if there is vaginal or uterine pain after the assault, vaginal bleeding or a suspicion that there may be a foreign body in the vagina.
g. In assaults that have occurred between 24 and 96 hours before the examination, it is necessary to do a speculum examination to collect an endocervical canal swab for semen.
h. If it is not possible to do a speculum examination, where the patient refuses, for instance, then it may be possible to collect a blind vaginal swab.

4. An anal exam can be conducted where the patient is in the lithotomy position, but it is usually easier to conduct it when the patient lies in the left lateral position, so the patient should be asked to roll over onto her side and draw her legs up once the genital examination has been completed.[43]
    a. Again, it is respectful to cover the thighs and rest of the body with a sheet or gown to make the patient feel a little more comfortable.
    b. The uppermost buttocks must be lifted to be able to view the anus. The process should be explained to the patient and they can hold the buttocks themselves if they feel comfortable to do so.
    c. Look for any bruises, lacerations or abrasions.
5. A digital rectal examination is recommended were there is a suspicion that ab foreign object has been inserted into the anal canal.
    a. The digital examination should be performed before a proctoscopy or anoscopy.
    b. When conducting a digital anal examination, the examining finger must be placed on the perianal tissues to allow the natural contraction response of the sphincter to relax.
    c. When it relaxes, then the insertion can take place.
6. A proctoscopy is only necessary where there is anal bleeding or severe anal pain after the assault or if it is suspected that there is a foreign body in the rectum.

Recording and classifying injuries[44]

In the forensic environment, role-players in the criminal justice system re interested in the following information:

- the age of the injury
- how the injury was caused
- the amount of force required to produce the injury
- the circumstances in which the injury was sustained
- eth consequences of the injury

Interpreting injuries is complex and requires a broad-based comprehension of anatomical, physiological and pathological principles. In order to perform this role an individual should have proven experience in the field, which should be reinforced by exposure to peer review and continuing education.

Without accurate documentation and expert interpretation of injuries, any conclusions drawn about how injuries occurred might be seriously flawed, which will have a profound impact on the outcome of the case and, consequently for both the victim and the accused.

[43] Page 44.
[44] Page 44.

Injury description[45]

The interpretation of injuries can only be done properly when the recorded observations of the wounds have been done accurately and completely. Injuries should be described as follows:

- Site: record the anatomical position of wound(s)
- Size: measure the dimensions of the wound(s)
- Shape: describe the shape of the wounds i.e. circular, linear, curved, irregular
- Surrounds: note the condition of the surrounding or nearby tissue i.e. bruised, swollen
- Colour: note the colour of injuries
- Course: note the direction of the force applied i.e. abrasions
- Contents: note the presence of any foreign material in the wound i.e. dirt, grass, glass
- Age: comment on any evidence of healing but be aware that accurate aging is impossible
- Borders: observe the characteristics of the edges of the wound as this may provide a clue to the weapon used
- Classification: use accepted terminology
- Depth: give an indication of the depth of the wound, which may have to be estimated.

Classification of wounds[46]

The use of standard terminology for describing wounds assists in identifying the mechanism by which the injury occurred as well as contributing a better understanding of the circumstances in which the injuries may have been sustained. A standardised system of wound classification and description allows deductions to be made about the weapon or object that caused the injury.

An examination of the pattern of injuries may assist in answering questions about whether the injuries were inflicted by accident, as a result of an assault, or were self-inflicted. Wounds are classified as either:

- abrasions
- bruises
- lacerations
- incisions
- stab wounds
- gunshot wounds.

Abrasions: These are superficial injuries to the skin caused by the application of blunt force and are produced by a combination of contact pressure and movement applied simultaneously to the skin. By carefully examining an abrasion, it may be possible to identify what caused the injury and the direction of the force applied. Abrasions are sub-divided as follows:[47]

- scratches i.e. produced by fingernails or thorns
- imprint i.e. where the pattern of the weapon leaves characteristic abrasions
- friction i.e. grazes from contact with carpet, grass or concrete.

Bruises: Bruises are defined as an area of haemorrhage beneath the skin and are also known as haematomas or contusions. Bruising is caused by blunt trauma and the discolouration is caused by leaking from ruptured blood vessels. Bruises can occur within a body cavity or within an organ. The following points should be noted about bruises:[48]

[45] Page 45.
[46] Page 45.
[47] Page 46.
[48] Page 46.

- the age of a bruise cannot be determined with any degree of accuracy, despite this being the belief previously
- the colour of the bruise may be affected by skin pigmentation and by different types of lighting i.e. bruising is not as easily visible on a darker skin; in addition, the description of colour is very personal
- the site of the bruising is not necessarily the site of trauma as bruising may extend beyond the site of the impact and may even appear at a site that is distant from the impact
- visible bruising may be absent even though considerable force was being used.
- the shape of the bruise does not necessarily reflect the shape of the weapon as blood may infiltrate surrounding tissues
- the size of the bruise is not necessarily proportional to the amount of force delivered
- but some bruises do have features that may assist in their interpretation.

Bite marks[49] are oval or circular bruises with a pale central area and may include some abrasion. Sometimes there may be a dentition pattern that can be seen. Photographs and measurements are important here. Bruises can be categorised as follows:

- Fingertip bruises: these are caused by the forceful application of fingertips and appear as 1cm to 2cm oval or round shaped clusters of three to four bruises which may be linear or a curved abrasion from contact with the fingernail.
- Patterned (imprint) bruises: this is where the bruise takes on the specific characteristics of the weapon used. An imprint of clothing is also possible when the force is delivered through the clothing and onto the skin.
- Petechial bruises: these are pinpoint areas of haemorrhage and are caused by the rupture of very small blood vessels. They are usually seen in the face, scalp or eyes after the neck has been compressed.
- Trainline bruises: these are parallel linear bruises which have a pale central area produced by forceful contact with a linear object, such as a stick or a baton.

Lacerations:[50] these are defined as ragged or irregular tears or splits in the skin, subcutaneous tissues or organs resulting from blunt trauma, usually caused by impact. The main characteristics of lacerations include:

- Ragged, irregular or bruised margins which may be inverted
- Intact nerves, tendons and bands of tissue within the wound
- Presence of foreign materials or hair in the wound.

The shape of the wound may reflect the shape of the implement causing the wound.

Incised wounds: these are injuries produced by sharp-edged objects where the length of the wound is greater than their depth. They are produced by a knife, razorblade, scalpel, sword or glass fragment(s).

It is important to distinguish between lacerations and incised wounds as this has implications for identifying the type of weapon causing the injury.[51]

FEATURES	**INCISED WOUNDS**	**LACERATIONS**
Borders	Sharply defined edges	Ragged irregular margins

[49] Page 46 – 47.
[50] Page 47.
[51] Page 47.

Surrounds	Minimal damage	Bruised or abraded
Blood loss	Variable, often a lot	Variable, often relatively small amounts
Contents	Rarely contaminated	Frequently contaminated, tissue bridges often visible

Stab wounds:[52] these are defined as incised wounds where the depth is greater than the length on the skin surface. The depth of the wound and the degree of trauma will determine the seriousness of the injury and whether it is fatal or not. Points to note include the following:

- Dimensions of the wound are not necessarily the dimensions of the blade.
- The depth of stab wounds are affected by the following:
    - amount of force used
    - robustness of protective clothing
    - sharpness of the tip of the implement
    - tissue resistance and any movement of the victim.
- It is necessary to be very cautious when interpreting the positions and movements of the victim and assailant from the dynamics of the stabbing.
- The external dimensions of a wound may bear no relationship to the resultant internal injury.

Gunshot wounds: It is necessary for a health workers to have a reasonable working knowledge of ballistics and gunshot wounds. However, these types of wounds may require the assistance of a forensic specialist or a more experienced practitioner.

Genito-anal injuries related to penetration[53]

Forceful penetration can cause trauma to the female genitalia. This can be accomplished by an erect or semi-erect penis, fingers, tongues or by objects. The act of penetration causes the soft tissues around the orifice to stretch. The likelihood and extent of any injuries are dependent on the following factors:

- state of the tissues i.e. size, lubrication, durability
- size and characteristics of the penetrating object
- the amount of force used
- degree of relaxation of the muscles in the pelvis and perineal areas
- position of the perpetrator
- angle of penetration

The most likely site for injuries are the posterior fourchette, the labia minora and majora, the hymen and the perianal folds. The most common forms of injury include abrasions, bruises and lacerations.

It is very important to be able to distinguish between genital injury caused by consensual penetration as opposed to non-consensual for forensic purposes:[54]

- There may be genital injuries caused during consensual intercourse, but visible signs of injuries to the naked eye are rare and usually confined to minor abrasions of the posterior fourchette and introitus.

[52] Page 48.
[53] Page 48.
[54] Page 49.

- Injury to the hymen resulting in bleeding can occur in some females who are unaccustomed to sexual intercourse.
- Anal and rectal injuries are seldom seen after consensual penetration.
- **But it is important to be aware that not all women who allege sexual assault will have genital injuries visible on examination performed without magnification**.
- "If a mature, sexually active woman does not resist, through fear of force or harm, and penile penetration of her vagina occurs, then it is likely that no injury will be sustained. This finding does NOT disprove her claim."[55]
- Studies indicate that less than 30% of premenopausal women will have genital injuries visible to the naked eye after non-consensual penetration, while that number increases to less than 50% in postmenopausal women.

Injury patterns and their interpretation[56]

The interpretation of injury patterns for medico-legal purposes should only be performed by practitioners who have considerable experience in forensic medicine. Injuries vary so dramatically that it is impossible sometimes to make definite conclusions, but some inferences about the nature and circumstances of an assault can be made from the pattern of the injury.

The following should be taken into account when assessing injury patterns in cases of sexual violence:[57]

- Injuries can range from no injuries (most frequent) to fatal injuries (least frequent).
- There are very few situations where it will be possible to state categorically that a specific injury has been sustained in a particular way or with a particular object. Usually, the only conclusion that can be reached is that the injury was caused by blunt trauma (bruise) or sharp trauma (incised wound).
- Falls that occur during an assault or when the victim is trying to flee also produce injuries. These can include abrasions or bruises and even lacerations to the bony prominences i.e. forehead, nose, elbows, knees, hips. The severity of the injury will be proportionate to the height fallen as well as the surface on which the fall took place.

In criminal prosecutions of sexual assault, information about injuries and patterns of injury is often crucial. The health worker may be required to testify and answer questions about injury patterns and to draw inferences from injury patterns about the circumstances surrounding the alleged assault. The type of information sought would include the following:[58]

- whether the injuries were due to blunt or sharp trauma (or both)
- how many applications of force were required to produce the injuries
- amount of force required to produce such injuries
- whether the injuries were sustained at or about the same time
- the likelihood of the injuries being sustained in the manner that has been alleged or whether there may be some alternative explanation that could also explain the injuries
- the possible immediate or long-term consequences of the injuries.

Responses to these questions must be very carefully considered within the forensic context.

Diagnostic tests, specimen collection and forensic issues

[55] Page 49.
[56] Page 51.
[57] Page 55.
[58] Page 55.

It may be necessary for the patient to undergo a number of diagnostic tests, such as X-rays, CT scans and/or ultrasound scans. It may also be necessary to collect a number of specimens from the patient for the purposes of medical testing i.e. pregnancy or STIs. It will have to be determined in each individual case which tests and specimens need to be taken.

It is a very good idea to collect the forensic evidence during the medical examination so that the patient is not subjected to further investigations and examinations. It will also be beneficial for the victim if the health worker provides acute care and makes the necessary referrals.

"Although the principal aim of a forensic examination is to serve the needs of the judicial system, there can never be a justification for compromising medical care or treatment of a patient to allow a forensic procedure to be performed."[59]

[59] Page 56.