Guidelines for medico-legal care for victims of sexual violence

WORLD HEALTH ORGANIZATION
GENEVA

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1 Introduction

1.1 Sexual violence: a global problem

Sexual violence is ubiquitous; it occurs in every culture, in all levels of society and in every country of the world. Data from country and local studies indicate that, in some parts of the world at least, one woman in every five has suffered an attempted or completed rape by an intimate partner during her lifetime. Furthermore, up to one-third of women describe their first sexual experience as being forced (*1*). Although the vast majority of victims are women, men and children of both sexes also experience sexual violence. Sexual violence can thus be regarded as a global problem, not only in the geographical sense but also in terms of age and sex.

Sexual violence takes place within a variety of settings, including the home, the workplace, schools and the community. In many cases, it begins in childhood or adolescence. High rates of forced sexual initiation have been reported in population-based studies conducted in such diverse locations as Cameroon, the Caribbean, Peru, New Zealand, South Africa and Tanzania. According to these studies, between 9% and 37% of adolescent females, and between 7% and 30% of adolescent males, have reported sexual coercion at the hands of family members, teachers, boyfriends or strangers (*2–8*).

Sexual violence has a significant negative impact on the health of the population. The potential reproductive and sexual health consequences are numerous – unwanted pregnancy, sexually transmitted infections (STIs), human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS) and increased risk for adoption of adoption of risky sexual behaviours (e.g. early and increased sexual involvement, and exposure to older and multiple partners). The mental health consequences of sexual violence can be just as serious and long lasting. Victims of child sexual abuse, for example, are more likely to experience depression, substance abuse, post-traumatic stress disorder (PTSD) and suicide in later life than their non-abused counterparts. Worldwide child sexual abuse is a major cause of PTSD, accounting for an estimated 33% of cases in females and 21% of cases in males (*9*).

1.2 Why are these guidelines needed?

Even if they fail to disclose the event itself, persons who have experienced sexual violence often seek medical assistance. Studies of the relationships between intimate partner violence, health status and female use of health care have shown that abused women consume more medical care than non-abused women (*10*, *11*). Survivors who chose to report the event, for example, to the police, are often taken to a health care facility for examination and treatment, particularly if the assailant was a stranger. Irrespective of the circumstances,

health workers who come into contact with victims of sexual violence are pivotal to the recognition of, and response to, individual cases of sexual assault.

Victims of sexual assault require comprehensive, gender-sensitive health services in order to cope with the physical and mental health consequences of their experience and to aid their recovery from an extremely distressing and traumatic event. The types of services that are needed include pregnancy testing, pregnancy prevention (i.e. emergency contraception), abortion services (where legal), STI testing and/or prophylaxis, treatment of injuries and psychosocial counselling. In addition to providing immediate health care, the health sector can act as an important referral point for other services that the victim may later need, for example, social welfare and legal aid. Health workers are also well placed to collect and document the evidence necessary for corroborating the circumstances of the assault, and for identifying the perpetrator and the health consequences of the event (*12*). Such evidence is often crucial to the prosecution of cases of sexual violence.

In most countries, however, there is a gap between the health care needs of victims of sexual violence and the existing level of health services provided in such cases (*13–16*). For instance, in many countries, victims of sexual violence are not examined by a specially trained medico-legal examiner or health care provider. In some cases, victims are subjected to multiple examinations in surroundings that do not meet minimum health standards. Moreover, until now, published protocols or guidelines for health care professionals on the medical management of persons who have experienced sexual violence have not been widely available.

Treatment guidelines or protocols serve a number of valuable functions. In the case of the management of victims of sexual violence, guidelines can help national health systems improve the quality of treatment and support provided to victims of sexual violence; secondly, standard protocols can guide the process of forensic evidence collection; and thirdly, they can be a useful educational tool for health care professionals seeking to increase their capacity to provide an adequate level of care.

In 1997, the XV International Federation of Gynaecology and Obstetrics (FIGO) World Congress of Gynaecology and Obstetrics and Human Rights Watch called on WHO to develop protocols for medico-legal services to victims of sexual violence. In response to this request, WHO convened a consultation in June 2001, involving WHO regional Office representatives and cross-regional experts, in order to determine the normative contribution that WHO should make to strengthen gender-sensitive comprehensive health care responses in cases of sexual violence. The Consultation recommended that WHO adopt a two-pronged approach, providing both policy guidance (in the form of a document titled *Policy guidance on appropriate health sector response to sexual violence*) and a set of guidelines on the medical management of individuals who have experienced sexual violence (the present document).

The guidelines have been developed in collaboration with Dr David Wells, Victorian Institute of Forensic Medicine, Victoria, Australia; Dr Wendy Taylor, University of Hong Kong, Hong Kong, Special Administrative Region of China; and Dr Tanya Smith, Hospital for Sick Children, Toronto, Canada. A draft

version of the guidelines has been peer-reviewed by experts representing all world regions, who provided valuable feedback on the relevance of the guidelines to different resource-level settings. In addition, the guidelines have been reviewed extensively within WHO.

1.3 Aims of the guidelines

The aim of these guidelines is to improve professional health services for all individuals (women, men and children) who have been victims of sexual violence by providing:

- health care workers with the knowledge and skills that are necessary for the management of victims of sexual violence;
- standards for the provision of both health care and forensic services to victims of sexual violence;
- guidance on the establishment of health and forensic services for victims of sexual violence.

By making the guidelines available as a resource document to all levels of health workers, it is hoped that awareness of the problem of sexual violence will be raised and, in turn, the detection rate of such activities increased. Ultimately, increased knowledge and awareness are paramount to finding the road to prevention.

These guidelines focus on the care of women and children. Although existing evidence points to comparable rates of sexual violence among males and females during childhood, in adulthood women are much more likely to suffer sexual violence than men. This finding, coupled with the fact that information about the specific health needs of male victims of sexual violence is very limited indeed, has determined the focus of the document. Nevertheless, these guidelines address a range of health care issues that apply to individuals of both sexes, and highlight several concerns that are specific to male victims.

1.4 Using the guidelines

These guidelines will be of interest to a wide range of health care professionals who come into contact with victims of sexual violence or have the opportunity to train health care providers that will attend victims of sexual violence. Health care professionals who come into these categories may include health service facility managers, medico-legal specialists, doctors and nurses with forensic training, district medical officers, police surgeons, gynaecologists, emergency room physicians and nurses, general practitioners, and mental health professionals. Health professionals can use the guidelines as a day-to-day service document and/or as a tool to guide the development of health services for victims of sexual violence. The guidelines can also be used to prepare in-service training courses on sexual violence for health care practitioners and other members of multidisciplinary teams.

At a second level, the guidelines are of relevance to policy-makers in charge of health service planning and professional training within health ministries,

and policy-makers with responsibility for developing guidelines for university curricula in the areas of medicine and public health. Policy-makers are in a position to ensure not only that the different aspects of services for victims of sexual violence are provided in a coordinated fashion and adequately funded, but also that the services are given the appropriate priority within relevant training programmes. The guidelines can also be used as a blueprint for the design of suitable care systems for national, regional and local authorities, and to guide the content of educational curricula on service provision for victims of sexual violence.

These guidelines have been developed with particular regard for health care professionals working in settings where there may be severe constraints on the capacity to provide comprehensive health services or to collect forensic evidence in cases of sexual violence. These guidelines will need to be adapted to specific local and/or national circumstances, taking into account the availability of resources and national policies and procedures.

The information presented in these guidelines is organized as follows: an overview of current research regarding the nature and dynamics of sexual violence (section 2) is followed by a section offering guidance of a more general nature on the provision of services to victims of sexual violence, including advice on the establishment of suitable health care facilities (section 3). Section 4 provides detailed guidance on all aspects of the medical examination of victims of sexual violence, including the recording and classifying of injuries. The collection of forensic evidence is explained in section 5; treatment options and follow-up care are covered in section 6. The special case of sexual violence against children is dealt with separately (section 7). The main part of the guidelines concludes with a section on documentation and reporting, including the provision of written reports and court testimony (section 8).

A sample form for recording the details of the consultation between the health care provider and the patient is annexed to the guidelines (Annex 1). Users of these guidelines are encouraged to use the sample form as it stands, or adapt it to suit their specific needs and circumstances. Annex 2 provides background medical information that is relevant to the care of victims of sexual violence. Finally, Annex 3 gives details of available training opportunities for health care personnel seeking to broaden their skills base in this particular area of health care.

In preparing these guidelines, due consideration has been given to the varied nomenclature that characterizes this field of expertise. For purposes of consistency, the following terms have been used throughout the document:

- *Victims*: individuals (i.e. women, men, children) who report that they have been sexually assaulted.
- *Patients*: individuals who are receiving a service from, or are being cared for by, a health worker.
- *Health workers*: professionals who provide health services, for example, doctors, nurses and other professionals who have specific training in the field of health care delivery.

- *Child*: an individual under the age of 18 years. (The definition of children in particular varies considerably between countries and states.)
- *Sexual violence* (synonymous with sexual abuse): a term covering a wide range of activities, including rape/forced sex, indecent assault and sexually-obsessive behaviour (see also section 2.1 Definition of sexual violence).
- *Intimate partner*: a husband, boyfriend or lover, or ex-husband, ex-boyfriend or ex-lover.

For reasons stated earlier, the guidelines use the *adult woman* as the primary user of health services. However, specific issues as they relate to children and adult men have been identified, wherever possible. For instance, while much of the text is generic, and is applicable to both children and adults, there are a number of sections of the guidelines that are specific to children. These include section 7 (Child sexual abuse) and Annex 2 (Medical issues and sexual violence). Similarly, issues that are peculiar to adult men have been highlighted in a number of places throughout the guidelines; these are generally presented as items of boxed text.

1.5 Reviewing the guidelines

Despite extensive peer review and strenuous efforts to reflect different regional realities, we recognize that there is always room for improvement when developing guidelines of this nature. Users are reminded that the guidelines are not intended to be prescriptive but rather adapted to suit specific service structures, legal frameworks and resource levels.

While we believe this document to be accurate at the time of writing, the passage of time will necessitate a number of changes, in particular, to the material on therapeutics. We would therefore encourage users of these guidelines to check the validity of the information contained in these guidelines, especially as it applies to their local situation and existing national treatment protocols.

We welcome feedback on these guidelines. For example, did this document tell you everything you needed to know in order to provide care for victims of sexual violence? If not, what were the gaps? Are the guidelines easy to read and put into practice? Can you think of ways in which they could be improved? Please send us your comments so that we can amend the guidelines to be as useful as possible for future users. You can contact us at:

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These guidelines may be downloaded at

http://www.who.int/violence_injury_prevention/

2 Sexual violence: prevalence, dynamics and consequences

SUMMARY

- Sexual violence can take many different forms; it is not limited to acts of non-consensual intercourse but includes a wide range of sexual behaviours, including attempts to obtain a sexual act, sexual harassment, coercion, trafficking for sexual exploitation and female genital mutilation. These guidelines, however, deal mainly with sexual assault (rape) and child sexual abuse.
- The vast majority of victims of sexual violence are female and most perpetrators are male.
- In most cases of sexual assault, the perpetrator is someone the victim knows, and perhaps knows well, such as a current or former intimate partner, or a relative.
- Sexual assault is an aggressive act motivated by power and control.
- Sexual violence has both physical and psychological effects on health and well-being; these can be short- and/or long-term. The health consequences of, and the responses to, sexual violence vary markedly between individuals and according to the nature of the abuse (e.g. frequency, severity, perpetrator).

2.1 Definition of sexual violence

The terms "rape", "sexual assault", "sexual abuse" and "sexual violence" are generally considered to be synonymous and are often used interchangeably. However, these terms may have very different meanings (and implications) in varying situations and locations. More significantly, legal definitions of specific types of sexual violence may differ from the medical and social definitions, and furthermore, can vary between countries and even within countries. It is important, therefore, that health care professionals are aware of the legal definitions of sexual violence within their own jurisdiction, particularly as it applies to the age of consent and marriage.

Sexual violence is defined as, "any sexual act, attempt to obtain a sexual act, unwanted sexual comments or advances, or acts to traffic women's sexuality, using coercion, threats of harm or physical force, by any person regardless of relationship to the victim, in any setting, including but not limited to home and work" (*1*). According to this definition, a very wide range of behaviours, from rape at gun-point to sexual coercion under a threat of dismissal (i.e. with false agreement), would be classed as an act of sexual violence.

False agreement to sexual activity can be obtained in a variety of ways; for instance, through threats of physical violence, threats of withholding benefits (such as a promotion at work or a good grade), psychological pressure or blackmail. Agreement in such circumstances does not amount to freely given consent. The same is true in cases of sexual acts involving individuals who are

unable to give consent, that is to say, individuals who are not capable of understanding the significance of the act or of indicating their consent or refusal (e.g. those who are incapacitated due to the effects of alcohol and/or drugs, or those with a mental disability); such acts would also be described as non-consensual (*17*).

2.2 Types of sexual violence

Sexual violence can take many forms and take place under very different circumstances. A person can be sexually violated by one individual or several people (e.g. gang-rapes); the incident may be planned or a surprise attack. Although sexual violence occurs most commonly in the victim's home (or in the perpetrator's home), it also takes place in many other settings, such as the workplace, at school, in prisons, cars, the streets or open spaces (e.g. parks, farmland).

The perpetrator of a sexual assault may be a date, an acquaintance, a friend, a family member, an intimate partner or former intimate partner, or a complete stranger, but more often than not, is someone known to the victim. There is no stereotypical perpetrator; sexually violent men come from all backgrounds, rich and poor, academic and uneducated, religious and non-religious. Perpetrators may be persons in positions of authority who are respected and trusted (e.g. a doctor, teacher, tourist guide, priest, police officer) and thus less likely to be suspected of sexual violence.

Sexual violence is common in situations of war and armed conflict. Specifically, rape and sexual torture are frequently used as weapons to demoralize the enemy; women are sometimes forced into "temporary marriages" with enemy soldiers. Women who are incarcerated may be subjected to sexual violence by prison guards and police officers (*18*).

Other forms of sexual violence include, but are not limited to (*19*):

— sexual slavery;
— sexual harassment (including demands for sex in exchange for job promotion or advancement or higher school marks or grades);
— trafficking for purposes of forced prostitution;
— forced exposure to pornography;
— forced pregnancy;
— forced sterilization;
— forced abortion;
— forced marriage;
— female genital mutilation;
— virginity tests.

Some perpetrators use drugs in order to facilitate sexual assault (*20*). A woman who has been plied with drugs is easier to control, to the extent that physical force is not necessary, as the drugs will render her submissive and incapacitated and, in some cases, unconscious. In this respect, the increased use of so-called "date rape" drugs in recent years has received much attention. This and other aspects of drug-facilitated sexual violence are discussed in greater detail in Box 1.

BOX 1

Drugs and sexual violence

Alcohol has long been used to facilitate non-consensual sex and remains the most popular "drug" of choice. In recent years, however, the use of "date rape" drugs has been implicated in an increasing number of cases of sexual violence. The most commonly used drugs are flunitrazepam (Rohypnol) and other benzodiazepines, gamma-hydroxybutyrate (GHB), ketamine, cocaine, methamphetamine and marijuana (20). Victims may be unaware that they have been drugged and that they have been sexually violated.

A double standard often exists between men and women in terms of drinking alcohol or using drugs. If a woman has been drinking or using drugs she is often blamed for her victimization. On the other hand, the perpetrator's behaviour is excused or justified because he was "under the influence" and thus not expected to control his behaviour.

Health workers need to be aware of the signs that are suggestive of drug-facilitated sexual violence. If patients present with any of the following symptoms, the use of drugs or alcohol should be suspected:

- impaired conscious state, memory loss, disorientation or confusion;
- impairment of speech or coordination;
- unexplained signs of trauma, particularly genital trauma;
- apparent intoxication not corresponding to stated alcohol consumption;
- unexplained loss or rearrangement of clothing;
- talking about having an "out-of-body experience".

If drugs or alcohol are suspected, it is important to be aware of the following:

- any alteration in conscious state requires immediate access to full resuscitation facilities, such as those available in emergency departments;
- the sooner specimens are taken (e.g. blood, urine) the greater the likelihood of successfully detecting any substances not knowingly taken.

While sexual violence takes many forms, these guidelines focus on providing care for victims of sexual assault and victims of child sexual abuse. For the purposes of these guidelines, rape is defined as "physically forced or otherwise coerced penetration – even if slight – of the vulva or anus, using a penis, other body parts or an object" (*1*). This definition includes coerced sexual activity that may not be considered rape if the local legal definition of rape is narrow (e.g. confined to vaginal penetrtion with a penis).

2.3 Prevalence

Sexual violence is a reality for millions of people worldwide, and for women in particular. Research indicates that the vast majority of victims of sexual violence are female, most perpetrators are male, and that most victims know their attacker (*19, 21–23*). This does not, however, negate that fact that sexual violence against men and boys is also widespread.

While it is generally acknowledged that sexual violence against women is pervasive in all countries and in all levels of society, reliable statistics concerning the prevalence of sexual violence around the world are very limited. Population-based studies of abuse by intimate partners indicate that between 6% and

46% of women report that they have experienced attempted or completed forced sex by an intimate partner or ex-partner at some time in their lives (*1*). Rape and domestic violence account for an estimated 5–16% of healthy years of life lost to women of reproductive age (*24*).

There is significant underreporting of sexual violence. Published statistics are therefore unlikely to provide an accurate picture of the true scale of the problem. This also creates difficulties when attempting to compare studies. The reasons for non-reporting are complex and multifaceted but typically include fear of retribution or ridicule, and a lack of confidence in investigators, police and health workers. Men are even less likely than women to report being a victim of sexual violence (*25*) and for this reason information about the extent of sexual violence against males is especially limited (*26*). Sexual violence against men and its consequences are discussed in more detail later in this section (see section 2.5 Health consequences).

It is also very difficult to establish true incidence rates, and even prevalence estimates, of child sexual abuse, again largely because of problems of under-reporting. Child sexual abuse is rarely reported at the time that the abuse occurs, and in many cases is never reported, and most prevalence data come from asking adults about their past experiences (*27*). Moreover, many countries lack a reliable reporting system for child sexual abuse. The situation is compounded by the fact that definitions of child sexual abuse vary between countries, making comparisons difficult. What data are available from studies conducted in different parts of the world suggest that between 7% and 36% of girls, and between 3% and 29% of boys, have suffered from child sexual abuse. The majority of studies concluded that sexual violence against girls is 1.5–3 times more widespread than that against boys. Of the reported cases of child sexual abuse, only 10–15% involve boys, a finding which highlights the discrepancy between reporting and occurrence of sexual violence in boys (*28*).

The trafficking of women and children for prostitution is becoming one of the fastest growing areas of international criminal activity. According to official estimates, somewhere between 1 and 2 million women and children are trafficked each year worldwide for forced labour, domestic servitude or sexual exploitation (29). Generally speaking, women of lower economic status are more susceptible to sexual slavery, trafficking and sexual harassment (*29*).

2.4 Dynamics of sexual violence

The driving forces behind, and the motivations for, sexually aggressive behaviour have been analysed by several researchers and can be summarized as follows:

- Sexual violence is an aggressive act. The underlying factors in many sexually violent acts are power and control, not, as is widely perceived, a craving for sex. Rarely is it a crime of passion. It is rather a violent, aggressive and hostile act used as a means to degrade, dominate, humiliate, terrorize and control women. The hostility, aggression and/or sadism displayed by the perpetrator are intended to threaten the victim's sense of self. Sexual violence violates a victim's sense of privacy, safety and well-being (*19*, *30*).
- Work with sexual offenders has confirmed that the motivating factor for

sexual violence is not sexual desire. Although sexuality and aggression are involved in all forms of sexual violence, sex is merely the medium used to express various types of non-sexual feelings such as anger and hostility towards women, as well as a need to control, dominate and assert power over them. Not all perpetrators have the same motivations for committing sexual violence, nor are they similar in the way that they commit sexually violent acts. Anger, power and sexuality are nevertheless elements that are always present, irrespective of the reason for the sexual violence or the nature of the act committed (*31*).

- Unravelling the reasons why a given individual should choose to commit a sexually violent act is a complex matter. Some common themes have, however, emerged. According to Groth, sexual violence "serves to compensate for feelings of helplessness, to reassure the offender about his sexual adequacy, to assert his identity, to retain status among his peers, to defend against sexual anxieties, to achieve sexual gratification, and to discharge frustration" (*31*).

It is important that health workers have an understanding of the dynamics of sexual violence in order to be able to offer empathetic, objective and optimum care. For a more in-depth discussion of the dynamics of sexual violence, readers are referred to the relevant chapter of the WHO *World report on violence and health* (*1*).

2.4.1 Rape myths

The reality of sexual violence is often very different to what most people believe occurs. Some of the more popularly held misconceptions about rape are summarized in Table 1. It is often easier for us, both as individuals and as members of society, to accept the many myths that surround sexual violence rather than to challenge the religious, and socially- and culturally-accepted views of what constitutes appropriate sexual behaviour for men and women. In most societies and cultures men are seen as the sexual aggressors; women on the other hand are expected to be sexually passive and not initiate sexual activity, engage in sex only in marriage, and remain faithful to their husbands (*32*).

Prevailing myths affect the way in which society responds to rape and rape victims. When prevailing myths go unchallenged rape is supported, justified, and even condoned. Myths tend to be victim blaming; instead of holding the perpetrator responsible for his behaviour, the victim is blamed and held responsible for the assault, especially in cases where the victim knows the perpetrator. Often victims of sexual violence are simply not believed. These circumstances make it much more difficult for victims to seek help and recover from their experience.

Any person working with people who have been raped should be aware of the differences between myth and fact. Personal beliefs and attitudes toward rape need to be examined and challenged. It is essential that health workers understand the need for impartiality. It is not the role of the health worker to make judgements about the veracity of rape allegations, nor about the innocence or guilt of the alleged perpetrator; this is for the investigators and the courts to decide.

Table 1 **Common myths about rape**

MYTH	FACT
Sex is the primary motivation for rape.	Power, anger, dominance and control are the main motivating factors for rape.
Only certain types of women are raped.	Any woman can be a victim of rape. However, many people believe women who are of high moral character ("good girls") don't get raped and that females of low moral character ("bad girls") do get raped.
Women falsely report rape.	Only a very small percentage of reported rapes are thought to be false reports.
Rape is perpetrated by a stranger.	The vast majority of rapes are perpetrated by a known assailant.
Rape involves a great deal of physical violence and the use of a weapon.	Most rapes do not involve a great deal of physical force. The majority of victims report that they were afraid of receiving serious injuries or of being killed and so offered little resistance to the attack. This may also explain why little force or weapons are needed to subdue victims.
Rape leaves obvious signs of injury.	Because most rapes do not involve a significant amount of force there may be no physical injuries. Just because a person has no physical injuries does not mean they were not raped. Only approximately one-third of rape victims sustain visible physical injuries.
When women say "no" to sex, they actually mean "yes".	"No" means no; a woman's wishes in this regard should be respected at all times.
Sex workers cannot be raped.	Any man or woman, regardless of his/her involvement in the commercial sex industry, can be raped. Studies show that a significant proportion of male and female sex workers have been raped by their clients, the police or their partners.
A man cannot rape his wife.	Any forced sex or forced sexual activity constitutes rape, regardless of whether or not the woman is married to the perpetrator. Unfortunately, many jurisdictions have marital rape exemptions in their laws; although married women are subject to rape by their husbands the law does not recognize it as such.
Rape is reported immediately to the police.	The majority of rapes are never reported to the police. Of those that are reported, most are done so more than 24 hours after the incident. Victims do not report at all or delay reporting because they think nothing will be done, the perpetrator may have made threats against them or their families, they are afraid of family or community responses or they are ashamed; some victims simply feel that it is a private matter or do not know where to report the incident.

2.4.2 Risk factors

There are many factors that act to increase the risk of someone being coerced into sex or of someone forcing sex on another person. Some of these factors are related to the attitudes, beliefs and behaviours of the individuals involved, while others are deeply rooted in social conditioning and the peer, family and community environment. Such factors not only influence the likelihood of rape, but also the reaction to it (*1, 18*).

Although any person can be sexually victimized, there are some individuals

or groups of individuals who may be more vulnerable, and so appear to be "over represented" as victims of interpersonal violence, and of sexual violence in particular. These include:

— unaccompanied women;
— lone female heads of household;
— children and young adults;
— children in foster care;
— physically and mentally disabled men and women;
— individuals in prison or held in detention;
— individuals with drug or alcohol problems;
— individuals with a past history of rape or sexual abuse;
— individuals involved in prostitution;
— individuals in an abusive intimate or dependent relationship;
— victims of war or armed conflict situations;
— the homeless or impoverished.

Just as there is no typical victim, perpetrators too come from all walks of life. Table 2 lists established risk factors for perpetrating sexual violence.

2.5 Health consequences

The health consequences of sexual violence are numerous and varied, and include physical and psychological effects, both in the short-term and in the long-term. Most significantly perhaps, sexual abuse can have devastating long-term psychological effects, influencing and radically altering a person's entire life course.

2.5.1 Physical consequences

Individuals who have experienced sexual assault may suffer a range of physical injuries, genital and non-genital, or in extreme cases, death. Mortality can result either from the act of violence itself, or from acts of retribution (e.g. "honour" killings or as a punishment for reporting the crime) or from suicide. In addition, rape victims are at an increased risk from:

— unwanted pregnancy;
— unsafe abortion;
— sexually transmitted infections (STIs), including HIV/AIDS;
— sexual dysfunction;
— infertility;
— pelvic pain and pelvic inflammatory disease;
— urinary tract infections.

Genital injuries in women are most likely to be seen in the posterior fourchette, the labia minora, the hymen and/or the fossa navicularis. The most common types of genital injuries include:

— tears;
— ecchymosis (i.e. bruising);
— abrasions;
— redness and swelling.

Table 2 **Factors which increase men's risk of committing rape**

INDIVIDUAL FACTORS	RELATIONSHIP FACTORS	COMMUNITY FACTORS	SOCIETAL FACTORS
Alcohol and drug use	Associates with sexually-aggressive or delinquent peers	Poverty, mediated through forms of crisis of male identity	Societal norms supportive of sexual violence
Coercive sexual fantasies; attitudes supportive of sexual violence	Family environment is characterized by physical violence and few resources	Lack of employment opportunities	Societal norms supportive of male superiority and sexual entitlement
Impulsive and antisocial tendencies	Strongly patriarchal relationship or family environment	Lack of institutional support from police and judicial system	Weak laws and policies related to sexual violence
Preference for impersonal sex	Emotionally unsupportive family environment	General tolerance of sexual assault within the community	Weak laws and policies related to gender equality
Hostility towards women	Family honour considered more important than the health and safety of the victim	Weak community sanctions against perpetrators of sexual violence	High levels of crime and other forms of violence
History of sexual abuse as a child			
Witnessed family violence as a child			

Source: reference (*1*).

Non-genital physical injuries typically include the following:

— bruises and contusions;
— lacerations;
— ligature marks to ankles, wrists and neck;
— pattern injuries (i.e. hand prints, finger marks, belt marks, bite marks);
— anal or rectal trauma.

More detailed information about the types of physical injuries that are associated with sexual violence is given in section 4.5 (Recording and classifying injuries).

2.5.2 Psychological consequences

Just as there is no typical victim, there is no typical reaction to the experience of sexual violence; psychological effects vary considerably from person to person. Generally speaking, however, sexual abuse should be suspected in individuals who present, particularly repeatedly, with the following health problems (*19, 22, 33*):

— rape trauma syndrome (see below);
— post-traumatic stress disorder (see below);
— depression;
— social phobias (especially in marital or date rape victims);
— anxiety;

— increased substance use or abuse;
— suicidal behaviour.

In the longer-term, victims may complain of the following:

— chronic headaches;
— fatigue;
— sleep disturbances (i.e. nightmares, flashbacks);
— recurrent nausea;
— eating disorders;
— menstrual pain;
— sexual difficulties.

In adult survivors of child sexual abuse, symptoms are often an extension of those found in children, and may include:

— depression;
— anxiety;
— post-traumatic stress disorder;
— cognitive distortions;
— externalized emotional distress;
— interpersonal difficulties, including sexual problems.

Rape trauma syndrome

Many victims of sexual violence experience rape trauma syndrome (RTS) (*34*). This is defined as "…the stress response pattern of… a person who has experienced sexual violence" (*35*). RTS may be manifested in somatic, cognitive, psychological and/or behavioural symptoms and usually consists of two phases: the acute phase and the long-term phase.

The acute phase. The acute phase is a period of disorganization. It begins immediately after the rape and persists for approximately 2–3 weeks. During the acute phase, a person usually experiences strong emotional reactions and may present with physical symptoms (see section 2.5.1 Physical consequences). Emotional responses tend to be either expressed or controlled, for example:

— crying and sobbing;
— smiling and laughing;
— calm and very controlled;
— a flat affect.

Emotions may be expressed as anger, fear or anxiety. Some individuals may show feelings of shock and numbness; others may mask their feelings and act as though everything is fine.

The acute reaction is rooted in a fear of physical injury, mutilation or death. Once victims feel safe again they may begin to experience:

— mood swings;
— feelings of humiliation;
— degradation;
— shame;

— guilt;
— embarrassment;
— self-blame;
— defencelessness;
— hopelessness;
— anger;
— revenge;
— fear of another assault.

The long-term phase. The subsequent phase is one of reorganization, and ordinarily, begins approximately 2–3 weeks after the event. At this time the person starts to reorganize their lifestyle; this reorganization may be either adaptive or maladaptive. Reactions during this phase vary markedly from person to person, depending on (*34*):

— the age of the survivor;
— their life situation;
— the circumstances surrounding the rape;
— specific personality traits;
— the response of support persons.

Victims often initiate lifestyle changes, such as moving to a new residence, changing their telephone number, or obtaining an unlisted telephone number. Some individuals choose to embark on a period of travel.

Some individuals may experience difficulties in functioning at work, home or school. Phobias, such as fear of crowds or a fear of being alone, may begin to appear depending on where the rape took place.

Sexual dysfunction or changes in a person's sex life are very common. Frequently, the person may terminate an existing relationship with an intimate partner (*34*). Some of the sexual problems that women often encounter post assault include:

— sexual aversion;
— flashbacks of the rape during sex;
— vaginismus;
— orgasmic dysfunction.

RTS in men, together with some of the post-assault sexual concerns typically voiced by men, is described in Box 2. Sexual violence victims, irrespective of sex, who have an existing psycho-pathology, or past experience of sexual violence, are likely to find that any new victimization will exacerbate their trauma and may complicate their recovery (*34*).

Post-traumatic stress disorder

Victims of sexual violence frequently experience symptoms of post-traumatic stress disorder (PTSD). PTSD appears to be more common in persons who were threatened with a weapon and/or extreme physical force, in those raped by strangers, and in cases where physical injuries were inflicted.

Symptoms of PTSD may manifest as intrusions and avoidance (*32, 36*).

BOX 2

Men as victims of sexual violence

Men most commonly experience sexual violence in the form of (*32*):

— receptive anal intercourse;
— forced masturbation of the perpetrator;
— receptive oral sex;
— forced masturbation of the victim.

Sexual violence against males is underreported, far more so than in the case of women, largely because of the reluctance of men to report acts of sexual violence to the police. This in turn is likely to be due to extreme embarrassment experienced by most males at being a victim of sexual violence. There are, however, certain settings where acts of sexual violence against males may be more prevalent, for example, in prisons and the armed forces.

Generally speaking, 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 RTS in much the same way as women. However, men are likely to be particularly concerned about:

— their masculinity;
— their sexuality;
— opinions of other people (i.e. afraid that others will think they are homosexual);
— the fact that they were unable to prevent the rape.

These concerns about masculinity and sexuality may stem from the misconceptions that only homosexual men are raped and that heterosexual men would never rape another heterosexual man.

Intrusions involve reliving the experience and include:

— flashbacks;
— nightmares;
— recurrent, intrusive thoughts that stay in the mind.

Avoidance symptoms include:

— feelings of numbness;
— self-imposed isolation from family, friends and peers;
— intellectualizing the incident;
— distractions;
— increased drug or alcohol use;
— engaging in high-risk behaviours;
— avoiding places, activities or people that remind them of the assault.

Other common PTSD symptoms include dissociation, hypervigilence, irritability and emotional outbursts. For more in-depth information about PTSD, please refer to the *Diagnostic and statistical manual of mental disorders*, details of which are provided in the bibliography.

3. Service provision for victims of sexual violence

SUMMARY

- The health and welfare of the patient is the foremost priority.
- Ideally the health care and legal (forensic) services should be provided at the same time and place by the same person.
- Health workers should receive special training in providing services for victims of sexual violence and should also have a good understanding of local protocols, rules and laws applicable to the field of sexual violence.
- There should be a constructive and professional relationship with the other individuals and groups treating and assisting the victim or investigating the crime. Networking with other service providers can help ensure comprehensive care.
- Health workers should be free of bias or prejudices and maintain high ethical standards in the provision of these services.
- Resource constraints may preclude the possibility of service provision in an ideal facility, but it is possible to improve the quality of existing facilities by ensuring they are accessible, secure, clean and private.

3.1 General considerations

3.1.1 Priorities

When caring for victims of sexual violence, the overriding priority must always be the health and welfare of the patient. The provision of medico-legal services thus assumes secondary importance to that of general health care services (i.e. the treatment of injuries, assessment and management of pregnancy and sexually transmitted infections (STIs)). Performing a forensic examination without addressing the primary health care needs of patients is negligent.

Concern for the welfare of the patient extends to ensuring that patients are able to maintain their dignity after an assault that will have caused them to feel humiliated and degraded. In addition, medical and forensic services should be offered in such a way so as to minimize the number of invasive physical examinations and interviews the patient is required to undergo.

3.1.2 The setting

Appropriate, good quality care should be available to all individuals who have been victims of sexual assault. Consultations should take place at a site where there is optimal access to the full range of services and facilities that may be required by the patient, for example, within a hospital or a clinic. Individuals

should be able to access services 24-hours a day; if it is not possible to keep facilities open all the time, for example, due to financial constraints, outside normal working hours, access could be provided on an on-call basis.

Regardless of the setting (i.e. hospital-based or community-based) and location (i.e. urban, suburban or rural area), care should be ethical, compassionate, objective and above all, patient-centred. Safety, security and privacy are also important aspects of service provision.

In some countries, the health and medico-legal components of the service are provided at different times, in different places and by different people. Such a process is inefficient, unnecessary and most importantly, places an unwarranted burden on the victim. The ideal is that the medico-legal and the health services are provided simultaneously; that is to say, at the same time, in the same location and preferably by the same health practitioner. Policy-makers and health workers are encouraged to develop this model of service provision.

In practice, victims of sexual violence present at any point or sector of the health care system. Therefore, all health care facilities should be in a position to recognize sexual abuse and provide services to victims of sexual violence (or at least refer patients to appropriate services and care), irrespective of whether a forensic examination is required. If not already in place, health care facilities need to develop specific policies and procedures for dealing with victims of sexual violence.

3.1.3 Timing

The timing of the physical examination is largely dictated by what is best for the patient (particularly where injury intervention is required) but for a number of reasons is best performed as soon as possible after the patient presents. Delay in accessing services may result in:

— lost therapeutic opportunities (e.g. provision of emergency contraception);
— changes to the physical evidence (e.g. healing of injuries);
— loss of forensic material (e.g. evidence of contact with assailant including blood and semen).

In many instances, however, victims do not present for treatment for some considerable time after the assault.

3.1.4 Service providers

Given appropriate knowledge and training any health worker in a health or medical facility should be able to provide first level health care to victims of sexual violence. Expertise in the field will develop with further training, professional support and given adequate resources. Ideally, all health workers (i.e. nurses, physicians, social workers, mental health professionals) who come into contact with victims of sexual violence should receive appropriate training; this applies particularly to nurses and physicians who conduct physical

examinations of victims of sexual violence and to those who provide services to children and to the courts. In addition to initial training, health practitioners should also be given the opportunity to further their education and training and to participate in quality control and peer review processes. Training for health workers is described in more detail in Annex 3.

In many settings, the sex of the health worker may be a critical issue. Directors or managers of health care facilities should ensure that female nurses or physicians are available whenever possible. If necessary, efforts to recruit female examiners should be made a priority.

3.1.5 Ethical issues

Codes of medical ethics are based on the principles of doing "good" and not "doing harm". It is a fundamental duty of all health workers that they use their professional skills in an ethical manner and observe the laws of the community. Adherence to ethical codes of conduct is particularly relevant when dealing with victims of interpersonal violence who may have suffered abuse from a person in a position of power.

When providing services to victims of sexual violence, the following principles are generally considered to be fundamental (*13*):

- *Autonomy*. The right of patients (or in the case of patients under 18 years of age, individuals acting for the child, i.e. parents or guardians) to make decisions on their own behalf. All steps taken in providing services are based on the informed consent of the patient.
- *Beneficence*. The duty or obligation to act in the best interests of the patient.
- *Non-maleficence*. The duty or obligation to avoid harm to the patient.
- *Justice or fairness*. Doing and giving what is rightfully due.

These principles have practical implications for the manner in which services are provided, namely:

— awareness of the needs and wishes of the patient;
— displaying sensitivity and compassion;
— maintaining objectivity.

3.1.6 Local policies and laws

In most countries, local protocols, rules or laws govern the provision of medico-legal services to victims of sexual violence. These might include certification of the health worker, use of official documentation, an obligation to report any allegations to the appropriate authorities, procedures for the collection and handling of specimens and access to a range of therapeutic interventions (e.g. emergency contraception). Failure to comply with local regulations may compromise future investigations or court hearings. For this reason, it is imperative that health workers have a good understanding of the local protocols, rules and laws that govern the field of sexual violence.

3.1.7 Relationship with investigators

It is essential that health workers, in the course of performing their duties, are objective and as free as possible from any prejudice or bias. It is possible to provide an objective service without sacrificing sensitivity or compassion.

The need for impartiality is especially important when providing evidence – in the form of a written report or court testimony – in cases that proceed to criminal prosecution. Investigators, consciously or unconsciously, may bring considerable pressure to bear on health care practitioners to provide an interpretation that would resolve an issue. These forces may be direct and forceful, or subtle and insidious, and are likely to be particularly strong in situations where the practitioner has a formal relationship with an investigating authority, where a close personal relationship has developed between the investigator and the practitioner, or when the individual roles of the investigator and the practitioner become blurred. Fairness may also be compromised when the practitioner develops an unconscious or misplaced desire to help investigators.

In some instances, a culture of victim-blaming and a bias against women in general, which may be reflected in forms of judgmental questioning (e.g. leading questions about the appropriateness of clothing), can compromise objectivity. Health workers should never display any bias on matters of sexual preferences or practices (e.g. homosexual activity, extra marital affairs) or against individuals from different cultural, racial or religious backgrounds. In the pursuit of a non-judgmental demeanour, health workers may find it useful to examine their own personal attitudes. Failure to do this creates a particular disservice for the victim and, ultimately, the wider community.

3.1.8 Interaction with other services

It is important that health care facilities which provide services to victims of sexual violence collaborate closely with law enforcement, social services, rape crisis centres, nongovernmental organizations (NGOs) and other agencies to ensure not only that all the complex needs of the patients are met but also a continuity in service provision. A formal or informal liaison network involving representatives of such groups has an important role to play in overseeing service delivery, developing cross-training opportunities and identifying any problems in overall service delivery.

Provision of comprehensive services to victims of sexual violence thus requires the health worker to develop a constructive and professional relationship with a number of other groups or individuals. Although health workers' primary role is the provision of health care services, they must recognize that they are an integral part of a team responsible for providing a coordinated range of services to victims. Other members of the interdisciplinary team may include:

- *Counselling staff*. In some places, specially trained counsellors are available to assist in the provision of information and social services to patients. Some counsellors may provide (or assist the patient in accessing) short- or long-term psychological support. In the absence of trained counsellors, the health worker may be required to take on this role. Counselling services may also

be provided by social workers, psychologists, community-based support groups and religious groups.

- *Laboratories*. Medical and forensic scientific laboratories are responsible for analysing specimens taken from patients. In most settings, these services are provided by separate facilities. The medical laboratory (which is often attached to a hospital) has responsibility for testing the specimens taken for assessing the health needs of the patient (e.g. STI testing). The forensic laboratory will examine evidential specimens (e.g. clothing or specimens that may contain trace material from the assailant).
- *Hospitals*. Sexual assault health services are often provided within a hospital setting; this arrangement assures that medical issues can be addressed without delay. Alternatively, hospitals may be used to provide emergency or ancillary medical care for victims.
- *Police*. The main role of police is to investigate allegations of criminal activity. Police may be involved with both the victim and the alleged assailant. Some police forces have dedicated teams of officers for investigating sexual offences.
- *The criminal justice system*. In cases that proceed to prosecution, the health worker may have contact with the various individuals involved in the court process. Depending on the jurisdiction, this will include a range of court officials.

Developing an awareness of other services and service providers in your locality offers a number of advantages and benefits to both yourself, as a health worker, and to your patient, as a service recipient. Knowledge of other services will allow you to gain a better understanding of their respective roles in this field. Regular or occasional meetings with representatives of other service providers can assist in improving the quality of your own service provision. Ultimately, you are all there for one reason – improving the health, welfare and safety of victims and the wider community.

3.2 Facilities

High quality facilities for providing medical services to sexual assault victims are characterized by a number of key features, namely, they are accessible, secure, clean and private (see Table 3). All of these features should be incorporated when planning a new facility or modifying an existing facility.

3.2.1 The location

The ideal location for a health care facility for sexual violence victims is either within a hospital or a medical clinic, or somewhere where there is immediate access to medical expertise. For instance, a patient may present with acute health problems (e.g. head injury, intoxication) that require urgent medical intervention and treatment. Similarly, there should be ready access to a range of laboratory (e.g. haematology, microbiology) and counselling services.

Table 3 **Facilities for treating victims of sexual violence: fundamental requirements**

FEATURE	NOTES AND COMMENTS
Accessibility	24-hour access to service providers is preferable.
Security	At both an individual and community level there may be some antagonism to sexual assault services. There should therefore be adequate measures to protect patients, staff, health records and the facility itself. Strategies could include the use of a guard to control access, adequate lighting, video-surveillance, lockable doors and cabinets, and fire prevention equipment.
Cleanliness	A high standard of hygiene is required in the provision of any medical service. The facility should also comply with local safety and health regulations as they apply to fire, electricity, water, sewerage, ventilation, sterilization and waste disposal.
Privacy	Unauthorized people should not be able to view or hear any aspects of the consultation. Hence, the examination room(s) should have walls and a door, not merely curtains. Assailants must be kept separate from their victims.

In terms of the accommodation, there should be at least two rooms: a waiting room/reception area plus a separate consulting/examination room (preferably with access to toilet and waiting facilities). Further room(s) for others (e.g. family, friends, police) would be useful (see Box 3). If the facility is providing services to children, the physical surroundings should be child-friendly and special equipment for interviewing the child (e.g. two-way mirrors or video-recording facilities) may be required.

3.2.2 Equipment

The establishment of new health care facilities inevitably involves significant expenditure on equipment. However, relative to other types of medical facilities (e.g. an emergency department), the costs incurred in purchasing equipment for a facility for sexual violence victims are relatively small. Furthermore, the majority of the initial equipment costs will be "one-offs". It may also be possible to obtain many of the necessary supplies from hospital wards and recurrent equipment costs, which would be largely for disposable items, should be minimal.

Table 4 provides a list of the equipment required for the provision of a full range of medical and forensic services to victims of sexual violence. Financial resources are likely to be the main factor determining the quality and quantity of equipment that can be provided and maintained by any given facility. For this reason, the list distinguishes between "essential items", i.e. those considered necessary to provide a minimum level of care (items marked with an asterisk) and "other" items, i.e. additional items that could be purchased as and when funds become available.

The type of equipment and volume of supplies needed will largely depend on the types of services offered, the location of the health care facility and, in particular, on the level of access to other medical services. When considering equipment needs, service providers should consider carefully the relevance of the following to their own situation:

— pre-packaged rape kits;
— laboratory services;

BOX 3

The ideal facility

It is recognized that very few places will be in a position to provide and enjoy the perfect facility. However, in the event that a health worker was consulted about service provision for victims of sexual violence, they might refer to the need for "a private, discrete suite with ready access to an emergency department of a teaching hospital", comprising:

1. An examination room, equipped with, and laid out, as follows:
   - an examination couch positioned so that the health worker can approach the patient from the right-hand side; the couch must allow examination with the legs flopped apart (i.e. in the lithotomy position);
   - thermally neutral (i.e. not too cold or too hot);
   - auditory and visual privacy (particularly for undressing);
   - clean bed-linen and a gown for each patient;
   - lighting sufficient to perform a genito-anal examination;
   - hand-washing facilities (with soap and running water);
   - forensic supplies;
   - a table or desk for documenting and labelling specimens;
   - a lockable door to prevent entry during the examination;
   - a telephone.
2. A separate room containing a table and chairs where a support person could talk with the patient, and facilities for offering patients refreshments and a change of clothing and also for children who may be attending as patients or accompanying an adult.
3. Shower and toilet for the patient.
4. A room for the police.
5. A reception area that could also be used as a room for waiting family and friends.

— examination records;
— a colposcope.

Each of the above items is discussed in more detail below.

Rape kits

Pre-packaged kits that contain all the items typically required when collecting evidentiary material from rape victims are widely available in a number of countries. The advantage of a rape kit is that the examining practitioner can be confident that all the materials required for the collection of evidence are to hand prior to commencing the examination. In addition, the contents may act as a prompt for inexperienced practitioners to take certain specimens. It will also mean that specimens are collected and packaged in such a way that is acceptable to the forensic laboratory. The main disadvantage of pre-packaged kits is their cost; typically, the monetary value of sum total of the individual parts is relatively small, but costs involved in the preparation and packaging of the kit adds considerably to the overall price. In most cases, only a small number of the items in the kit are used, and the rest wasted.

The alternative to using pre-packaged rape kits is to get together the various necessary items (e.g. swabs, slides) and ensure that they are readily accessible to the examining practitioner. It is a relatively simple matter to make up one's own customized rape kit from a stock of individual items; not only is this cheaper than the pre-packaged version, but is more likely to lead to a sense of ownership and appropriate utilization. Custom-made rape kits also have the advantage of flexibility and can evolve as the facility becomes better resourced.

Laboratory services

Specimens collected from victims can be broadly divided into two categories, those used for diagnostic health purposes and those used for criminal investigation. In most settings, the type of specimens collected for the purpose of forensic investigation will be dictated by the quality and sophistication of available services at medico-legal or forensic laboratories. For instance, if a laboratory is not able to perform DNA testing (or access such testing from another laboratory), there is little point in collecting specimens for DNA analysis. By the same token, there is little use for expensive rape kits if immediate access to high-quality analytical services is not available.

Health workers are advised to consult laboratory staff as to which specimens they are able to process, how samples should be collected and handled, and how long the samples will take to process.

Examination records

There are a number of different ways of recording the details of a consultation (see section 8.1 Documentation). Use of a standard form or proforma is, however, generally considered to be the most convenient and reliable method. The WHO sample sexual violence examination record, attached as Annex 1, can be used as it is or as a model that can be adapted to suit individual requirements (e.g. according to how and what specimens are collected and handled). If service providers decide to use examination proformas, sufficient numbers should be retained in readiness for consultations. Consideration must also be given to matters of confidentiality; completed records must be stored securely and accessed only by authorized staff.

The colposcope

The colposcope is a binocular, low-powered microscope with an integral light source. Most colposcopes have an attachable camera that allows findings to be photographed or video-taped. In recent years, the colposcope and its capacity for photo-documentation have greatly assisted the recording of genito-anal findings in abused and non-abused children. However, colposcopes are expensive and some skill is required in the interpretation of recorded findings. Genito-anal examinations conducted by an experienced person using a fixed light and a hand-held lens are generally considered to be adequate and are still the norm in many areas.

Table 4 **Provision of medical and forensic services to victims of sexual violence: equipment list**

ITEM[a]	COMMENTS
FIXTURES	
Examination couch*	
Desk, chairs* and filing cabinet	For victim, accompanying persons and health worker.
Light source*	Ideally mobile.
Washing facilities and toilet*	Facilities should be available for the victim to wash at the conclusion of the examination. There should also be a facility for the health worker to wash the hands before and after an examination. Facilities should include a shower, a hand basin and soap.
Refrigerator and cupboard	For the storage of specimens, preferably lockable.
Telephone*	
Fax machine	
GENERAL MEDICAL ITEMS	
Tourniquet*	
Syringes, needles and sterile swabs*	
Blood tubes (various)*	
Speculums (various sizes)*	
Sterilizing equipment	For sterilizing instruments (e.g. specula).
Proctoscope/anoscope*	
Examination gloves*	
Pregnancy testing kits*	
STI collection kits	
Lubricant, sterile water normal saline*	
Sharps container*	
Scales and height measure	For examining children.
FORENSIC ITEMS[b]	
Swabs (cotton wool or similar) and containers for transporting swabs*	For collection of foreign material on victim (e.g. semen, blood, saliva). Do not use medium when collecting forensic specimens.
Microscope slides*	For plating of swabs.
Blood tubes*	Blood is used for DNA or toxicological analysis.
Urine specimen containers*	For pregnancy and toxicological testing.
Sheets of paper (drop sheet)*	For patient to stand on whilst undressing for collection of loose, fine materials.
Paper bags*	For collection of clothing and any wet items.

[a] Items marked with an asterisk are considered essential for providing a minimum level of service.
[b] Can be held individually or as part of a pre-packaged rape kit.

Table 4 ***Continued***

ITEM[a]	COMMENTS
Plastic specimen bags*	For collection or transport of other (dry) forensic items.
Tweezers, scissors, comb*	For collecting foreign debris on skin. Use scissors or comb to remove and collect material in hair.
TREATMENT ITEMS[c]	
Analgesics*	A range of simple analgesics may be useful.
Emergency contraception*	
Suture materials	
Tetanus and hepatitis prophylaxis/vaccination	
STI prophylaxis*	
LINEN	
Sheets and blankets*	For examination couch.
Towels*	
Clothing	To replace any damaged or retained items of the victim's clothing.
Patient gowns*	To allow patient to fully undress for examination.
Sanitary items (e.g. pads, tampons)*	
STATIONERY	
Examination record or proforma*	For recording findings (see Annex 1).
Labels*	For attaching to various specimens.
Consent form*	This should be completed as required by local rules or protocols (see Annex 1).
Pathology/radiology referral forms	For referring patient for further investigation or tests.
Information brochure	Ideally the patient should be provided with information about the service they have accessed, methods of contacting the treating practitioner if required and details of follow-up services. These brochures should supplement any verbal information that the victim has been provided with. In addition to reinforcing important information that the victim may forget, brochures may provide information to other potential service users.
SUNDRY ITEMS	
Camera and film	Photography is useful but not necessarily an essential tool for injury documentation. Police or hospitals may also be able to assist.
Colposcope or magnifying lens	Useful for obtaining a magnified view of a wound.
Microscope	May be used by the practitioner to check for the presence of spermatozoa, particularly if no laboratory facility is accessible.

[c] Patients may present with a range of physical conditions. There should be ready access to the facilities, equipment and items required to treat these conditions. If not held at the centre they should be available nearby (e.g. at a hospital or clinic). Other medications (e.g. for the treatment of insomnia and anxiety) may also be required.

Table 4 ***Continued***

ITEM[a]	COMMENTS
Swab dryer	Forensic swabs should be dried before being packaged. This can be done with the use of a dryer or the swabs can be air-dried so long as they are protected from foreign DNA.
Measuring device (e.g. ruler, tape measure, calipers)*	For measuring the size of wounds.
Pens, pencils*	
Computer and printer	
Sterilization equipment	For medical instruments.
Children's drawing materials/toys	Useful to keep children occupied.

3.3 Establishing a service for victims of sexual abuse

3.3.1 Initial considerations

When planning service provision for victims of sexual violence, be it setting up a new facility or modifying an existing one, a number of issues need to be considered and addressed. These are outlined below.

In assessing local circumstances and needs, the types of questions that need to be asked are as follows:

- What are the needs of the community?
- What types of health care facilities, if any, already exist?
- What types of services are to be offered in the facility?
- Where will the facility be located?
- What are the hours of operation of the facility?
- Are there enough qualified female health care providers in the area?
- What are the local laws and regulations governing health care facilities and personnel?
- What are the laws regarding abortion, sexual violence, procedures for forensic evidence collection and the distribution of emergency contraceptive pills?
- Will services be provided to male and child victims?
- Who are the potential partners in the local area?
- What types of laboratory facilities are available?
- What types of medicines and equipment are available?
- What types of referrals are available in the local area (e.g. specialist physicians, rape crisis programmes, emergency shelters, specialized children's services)?

The structure of the proposed facility and the staffing requirements also need careful consideration, for example:

- How will the organization be structured?
- What are the mission, goals, and objectives of the programme?
- Who will be in charge and what qualifications do they require?
- Who will provide the services and what qualifications do they need to have (i.e. nurses, physicians, social workers, health aids)?

- How many personnel are required?
- What are the roles of the director and staff?
- Who will conduct programme education, training, research and evaluation of staff and other members of the multidisciplinary team?
- What monitoring and evaluation tools are needed and how will they be developed?

Funding is likely to be a critical issue. For instance, where will the funding come from for the building, equipment, medicines, staff salaries, staff training and utilities?

Consideration must also be given to the development of:

— policies, procedures and protocols for treating victims of sexual violence if they do not already exist;
— protocols for collecting forensic evidence;
— protocols for the administration of emergency contraception for pregnancy prevention, and for STI testing and prophylaxis;
— protocols for HIV testing and post-exposure prophylaxis;
— community awareness programmes and counselling services;
— data collection processes.

When developing services for victims of sexual assault, the availability of financial resources tends to be the overriding deciding factor governing decisions about staffing and stocking levels. In many settings, resources will be limited and services will have to be provided in less than ideal surroundings. Nevertheless, it should still be possible to provide a good quality medical service. In low-resource settings, it may be helpful to adopt a step-wise development strategy, that is to say, setting a series of goals aimed at improving and further developing the service over time as additional resources become available.

3.3.2 Evaluation and monitoring

Evaluation and monitoring are important aspects of all forms of health care provision and the key to maintaining high quality services and a satisfactory level of care. The aim of evaluation and monitoring is the assessment of the strengths and weaknesses of a facility or service, the results of which can be used to modify and improve services as appropriate. This type of information can also be useful for administrators and resource managers when deciding how to allocate scarce resources.

More specifically, evaluation and monitoring can be used to determine (*93*):

- By surveying those who use the facility, how well services are being delivered (e.g. by using patient satisfaction surveys).
- The output, performance and type of services provided (e.g. the number of patients seen monthly, the number of patients who return for follow-up, the number of education programmes provided to the community or in-service to health care professionals).
- Patient outcomes (e.g. the number of patients who acquired STIs as a result of sexual violence, the number of pregnancies resulting from sexual violence).

The planning of an evaluation and monitoring system generally involves the following steps (*93*):

— listing the goals of the health care facility;
— identifying questions, problems or areas of concern;
— identifying outcomes of patients who use the facility;
— developing questions for the evaluation or use of existing evaluation tools;
— deciding what type of information is needed to answer the evaluation questions;
— determining how to obtain the information;
— determining who will conduct the evaluation and analyse the data;
— determining the time-frame for collecting the information;
— determining how the information collected is to be used.

4 Assessment and examination of adult victims of sexual violence

SUMMARY

- In caring for victims of sexual violence the overriding priority must always be the health and well-being of the patient.
- The physical examination of sexual assault victims must be thorough; it will inevitably be intrusive and time consuming. In the interest of avoiding multiple examinations and further distress for the patient, the medical examination and forensic evidence collection should, when possible, occur simultaneously.
- Treating a victim of sexual assault with respect and compassion throughout the examination will aid her recovery.
- Obtaining informed consent for the examination and for the release of information to third parties is a crucial component of the service.
- All parts of the examination should be explained in advance; during the examination, patients should be informed when and where touching will occur and should be given ample opportunity to ask questions. The patient's wishes must be upheld at all times.
- All findings must be documented carefully; to help ensure that no important details are omitted, the use of a standard examination form is recommended (see Annex 1).

4.1 Overview

Individuals who have suffered sexual violence, irrespective of the point at which they present within the health sector, should be offered a full medical-forensic examination, the main components of which are as follows:

— an initial assessment, including obtaining informed consent (see section 4.2);
— a medical history, including an account of the events described as sexual violence (see section 4.3);
— a "top-to-toe" physical examination (see section 4.4.2);
— a detailed genito-anal examination (see section 4.4.3);
— recording and classifying injuries (see section 4.5);
— collection of indicated medical specimens for diagnostic purposes (see section 4.6);
— collection of forensic specimens (see section 5.2);
— labelling, packaging and transporting of forensic specimens to maintain the chain of custody of the evidence (see section 5.2);
— therapeutic opportunities (see sections 6.1–6.5);
— arranging follow-up care (see section 6.7);

— storage of documentation (see section 8.1.2);
— provision of a medico-legal report (see section 8.3).

Although these guidelines take the adult female as their subject, many of the principles and procedures described below apply equally to adult men. Specific concerns as they relate to the care of men are highlighted in Box 4. The special case of children is, however, covered separately (section 7 Child sexual abuse).

Rape victims need an unusual degree of professional reassurance, acceptance and understanding in regard to the therapeutic examination (*37*). Dealing with patients who have been subjected to sexual violence thus demands a broad range of skills:

— a knowledge of normal human sexual responses, genito-anal anatomy and physiology;
— a 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.

BOX 4

Medical management of adult male victims of sexual violence

With regard to the physical examination and medical interventions:

- Male victims of sexual violence should be triaged in the same manner as female victims.
- The same procedures for obtaining consent, taking a history, conducting the physical examination (although the genital examination will be different) and ordering diagnostic laboratory tests should be followed, that is:
  - perform a top-to-toe examination looking for any signs of injury;
  - conduct a thorough examination of the genito-anal area;
  - treat any injuries (men also need to be treated for STIs, hepatitis B and tetanus).
- Men need to 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.

4.2 The initial assessment

4.2.1 Assessing the priorities

On presentation, victims of sexual violence should be granted immediate access to a trained health worker. Their acute health care needs are the primary concern at this early stage and should be assessed as soon as possible.

In busy settings where several patients may present simultaneously, such as hospital emergency departments, it will be necessary to sort out the order of

urgency in which patients are seen. Victims of sexual violence who have serious or life-threatening injuries will need acute medical or surgical care, as appropriate. Under these circumstances, the safety, health and well-being of the patient always takes priority over all other considerations. It may not always be possible to attend to the medical needs of patients with less severe injuries immediately; if a wait is unavoidable, patients should not be left alone in a waiting room, but should have someone with them to offer comfort and support until their medical needs can be attended to.

4.2.2 How health workers should conduct themselves

A victim is often in a heightened state of awareness and very emotional after an assault due to circulating stress hormones; events may be recalled in dramatic detail. Many survivors of sexual assault have described the kindness of the treating personnel as being beneficial to their recovery. Conversely, many describe comments made by police, doctors, counsellors and other persons with whom they have had contact as a result of the assault that have haunted them for years. For this reason, health workers must choose their words with great care when dealing with sexual assault patients and take care not to contribute in any way to revictimization of the patient.

Use of insensitive language may contribute not only to patient distress during the examination but also hinder long-term recovery. Health workers are advised to choose words that are gentle and soothing; there is no place for judgmental or critical comments. It is imperative that all victims of sexual violence are treated with respect and dignity throughout the entire examination irrespective of their social status, race, religion, culture, sexual orientation, lifestyle, sex or occupation.

Some of the emotions and feelings that are commonly expressed by victims of sexual violence, together with suggestions for appropriate responses, are listed in Table 5. Box 5 also offers advice on appropriate health care provider conduct and demeanour.

Many victims cite a fear of not being believed as a reason for not reporting sexual assault and, indeed, recovery can be hindered when others disbelieve or blame the patient for the assault. Validation of the patient's feelings is thus critical to recovery (*52*). Body language, gestures and facial expressions all contribute to conveying an atmosphere of believing the patient's account. However, this does not relieve the health worker from his/her duty to consider carefully what they are being told. There is a big difference between scepticism and naivete, and it is in between these polarities that the health worker can best satisfy the differing needs of patient, law enforcement, criminal justice system and the wider society. To be seen to be impartial is vital for effective court testimony.

Health workers should also be aware of the impact on themselves of repeatedly hearing, seeing and dealing with cases of interpersonal violence. Recognition of the effects of exposure to what are inevitably, at least at times, extremely

Table 5 **Management of victims of sexual violence: helping patients to deal with their emotions**

THE FEELING	SOME WAYS TO RESPOND
Hopelessness	Say, "You are a valuable person."
Despair	Focus on the strategies and resourcefulness that the person used to survive.
Powerlessness and loss of control	Say, "You have choices and options today in how to proceed."
Flashbacks	Say, "These will resolve with the healing process."
Disturbed sleep	Say, "This will improve with the healing process."
Denial	Say, "I'm taking what you have told me seriously. I will be here if you need help in the future."
Guilt and self-blame	Say, "You are not to blame for what happened to you. The person who assaulted you is responsible for the violence."
Shame	Say, "There is no loss of honour in being assaulted. You are an honourable person."
Fear	Emphasize, "You are safe now." You can say, "That must have been very frightening for you."
Numbness	Say, "This is a common reaction to severe trauma. You will feel again. All in good time."
Mood swings	Explain that these are common and should resolve with the healing process.
Anger	A legitimate feeling and avenues can be found for its safe expression. Assist the patient in experiencing those feelings. For example, "You sound very angry."
Anxiety	Tell the patient that these symptoms will ease with the use of the appropriate stress management techniques and offer to explain these techniques.
Helplessness	Say, "It sounds as if you were feeling helpless. We are here to help you."

Source: adapted from references (*50, 51*).

BOX 5

Dealing with victims of sexual violence: useful techniques

You may find the following strategies and techniques helpful when dealing with victims of sexual violence:

- Greet the patient by name. Use her preferred name. Make her your central focus.
- Introduce yourself to the patient and tell her your role, i.e. physician, nurse, health worker.
- Aim for an attitude of respectful, quiet professionalism within the boundaries of your patient's culture.
- Have a calm demeanour. A victim who has been frightened and has experienced fear wants to be in the company of people who are not frightened.
- Be unhurried. Give time.
- Maintain eye contact as much as is culturally appropriate.
- Be empathetic and non-judgmental as your patient recounts her experiences

distressing events and an ability to develop mechanisms for coping are essential for maintaining one's personal health and well-being while working long-term in this field. Health service managers need to be aware of this and to ensure support is available to staff. There are a number of fora, both formal and informal, that can assist health workers address any issues they may have; these include psychological debriefing sessions and discussions with fellow workers.

4.2.3 Obtaining consent

Before a full medical examination of the patient can be conducted, it is essential that **informed consent** be obtained. In practice, obtaining informed consent means explaining all aspects of the consultation to the patient. Particular emphasis should be placed on the matter of the release of information to other parties, including the police. This is especially important in settings where there is a legal obligation to report an episode of violence (and hence details of the consultation) to the relevant authorities.

Thus, having determined the medical status of the patient, the next step in the assessment process is to inform the patient of her options. It is crucial that patients understand the options open to them and are given sufficient information to enable them to make informed decisions about their care. It is important that the correct environment is provided, i.e. one in which the patient feels secure and does not feel pressurized or intimidated in any way. This is a fundamental right of all patients but has particular relevance in this setting where patients may have been subjected to a personal and intrusive event against their will. It is also important to ensure that a patient has a sense of control returned to them when in medical care. Above all, the wishes of the patient must be respected.

Informed consent is a central issue in medico-legal matters. Examining a person without their consent could result in the medical officer in question being charged with offences of assault, battery or trespass. In some jurisdictions, the results of an examination conducted without consent cannot be used in legal proceedings.

4.3 Taking a history

Once you are satisfied that your patient has sufficient information to provide informed consent, ask her to sign or mark the consent form (if a consent form is required in your jurisdiction). Explain to the patient that should she decide to pursue legal action against the perpetrator, any information she discloses to you in the course of the examination may become part of the public record. If mandatory reporting is required in your jurisdiction, make sure the patient understands this. It is worth spending time obtaining consent as this may well help to develop the patient's trust in you. It will benefit everyone if you can make your patient feel safe and secure in the environment in which you are working, as well as with yourself, as her examiner.

4.3.1 General medical history

The primary purpose of taking a medical history is to obtain information that may assist in the medical management of the patient or may help to explain subsequent findings, e.g. easy bruising or loss of consciousness or memory loss. Health professionals are advised to refer to national guidelines or standards for conducting clinical examinations to ensure that they are in compliance.

As a minimum, the medical history should cover any known health problems (including allergies), immunization status and medications. In terms of obtaining information about the patient's general health status, useful questions to ask would be:

- Tell me about your general health.
- Have you seen a nurse or doctor lately?
- Have you been diagnosed with any illnesses?
- Have you had any operations?
- Do you suffer from any infectious diseases?

When seeking information about medications that your patient may be taking, the following questions may be helpful:

- Do you have any allergies?
- Do you take tablets given to you by a health worker?
- Do you take herbal preparations?
- Do you take any other potions?

If possible, a standard examination record (see Annex 1) should be used for recording details of the patient's medical history; use of a standard form acts as a guide for the examiner by prompting relevant questions and prevents the omission of important details. Observing an experienced practitioner taking a history is also an invaluable aid in this area.

4.3.2 Gynaecological history

A patient's recent gynaecological history is of particular relevance in cases of sexual assault. Questions that could be asked include:

- When was the first day of your last menstrual period?
- Have you had any sexual relationship prior to this event?
- Have you had any pregnancies? How many and how were they delivered?
- How many children do you have?
- Were there any complications during delivery?
- Have you had pelvic surgery?
- Do you use contraception? What type?
- Do you have a current sexual partner?
- When did you last have intercourse that you agreed to? (Details may be required if DNA analysis is to be performed.)

4.3.3 The assault itself

The main aims of obtaining an account of the violence inflicted are to:

— detect and treat all acute injuries;
— assess the risk of adverse consequences, such as pregnancy and STIs;
— guide relevant specimen collection;
— allow documentation (the history should be precise, accurate, without unnecessary information that may result in discrepancies with police reports);
— guide forensic examination.

When interviewing the patient about the assault, ask her to tell you in her own words what happened to her. Document her account without unnecessary interruption; if you need to clarify any details, ask questions after your patient has completed her account. Avoid questions commencing with the word, "Why?" as this tends to imply blame; instead use open-ended, non-leading questions. Be thorough, bearing in mind that some patients may intentionally avoid particularly embarrassing details of the assault (for example, patients may omit details of oral sexual contact or anal penetration); others may find it difficult to talk about the assault. Explain to the patient that you are interested in different aspects of the event to the police; as her health worker you are particularly concerned about any physical contacts between the patient and her assailant(s).

Always address patient questions and concerns in a non-judgmental, empathetic manner; for instance:

— use a very calm tone of voice;
— maintain eye-contact as is culturally appropriate;
— don't express shock or disbelief;
— avoid using victim-blaming statements such as, "What did you think would happen?", "What were you doing out alone?", "What were you wearing?" or "You should have known better."

Note that some victims experience involuntary orgasms during the assault; this may cause much confusion for the patient. The fact that a patient experienced orgasm does not imply consent.

The following details about the alleged assault must be documented, peferably in an examination proforma (*53*):

— the date, time and location of the assault, including 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;
— use of weapons and restraints;
— use of medications/drugs/alcohol/inhaled substances;
— how clothing was removed.

Details of actual or attempted sexual activity should also be carefully recorded, in particular whether or not the following occurred:

— 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 body the victim's body or at the scene.

The use of condoms and lubricant should be noted. Any subsequent activities by the patient that may alter evidence, for example, bathing, douching, wiping, the use of tampons and changes of clothing, should also be documented. Finally, details of any symptoms that have developed since the assault must be recorded; these may include:

— genital bleeding, discharge, itching, sores or pain;
— urinary symptoms;
— anal pain or bleeding;
— abdominal pain.

4.4 The physical examination

4.4.1 General principles

When conducting a physical examination of a victim of sexual violence, examiners are advised to proceed as follows (further information on selected parts of the recommended examination sequence are provided in subsequent subsections as indicated):

1. Note the patient's general appearance, demeanour and mental functioning. If the patient's mental functioning appears impaired, attempt to assess whether the impairment is recent (e.g. due to the effects of alcohol) or symptomatic of a longer-term illness or disability (e.g. mental retardation).
2. Note the patient's vital signs, that is her:
   — blood pressure;
   — temperature;
   — pulse;
   — respiration rate.
3. Examine the patient from head-to-toe, concluding with the genito-anal area[1] (see sections 4.4.2 and 4.4.3, respectively).
4. Note and describe in detail any physical injuries, even if forensic evidence is not being collected. Use body maps to indicate location and size of injury (see section 4.5).
5. Photograph any injuries, if possible (see section 8.2). A separate consent form for photography may be necessary.
6. Order diagnostic tests (e.g. X-rays, CT scan, ultrasound) to aid in diagnosing

[1] It is generally considered inappropriate to perform an internal gynaecological examination on a virgin. The decision as to whether this should be done should be based on medical and "humanitarian" grounds.

fractures, head and neck injuries, brain or spinal cord injuries, or abdominal trauma, as appropriate (see section 4.6).

7. Draw blood samples for testing for HIV (informed consent must be obtained for HIV testing), hepatitis B, syphilis and other STIs, as necessary (see sections 6.3–6.5).

It is important to observe the following general principles and procedures throughout:

- Before starting the physical examination, take time to explain all the procedures to your patient and why they are necessary. Give your patient a chance to ask any questions.
- Allow the patient to have a family member or friend present throughout the examination, if she so wishes.
- A chaperone for the patient should always be present, especially if the examiner is male. The primary role of the chaperone, preferably a trained health worker, is to provide comfort and support to the patient. The chaperone also protects the health worker in the event of a patient alleging that the examining health worker behaved in an unprofessional manner.
- Throughout the physical examination inform the patient what you plan to do next and ask permission. Always let the patient know when and where touching will occur. Show and explain instruments and collection materials. Patients may refuse all or parts of the physical examination and you must respect the patient's decision. Allowing the patient a degree of control over the physical examination is important to her recovery.
- The examination should be performed in a setting that is light, warm, clean and private. Ideally, the accommodation should provide both auditory and physical privacy, with separate areas for undressing (e.g. behind a screen or curtain, or another room) and the couch aligned so as to allow the health worker to approach from the patient's side. A gown should be provided.
- If the clothing removed was that worn during the assault and forensic evidence is to be collected, the patient needs to undress over a white sheet or large piece of light paper. Try to provide as much privacy as possible while the patient is undressing. Use a cover gown. If the patient has consented to the collection of her clothing then each item of clothing must be placed by the examiner's gloved hand into a paper bag. If clothing is to be held for forensic examination, replacement clothing needs to be provided. Section 5 (Forensic specimens) provides further details of the requirements of forensic examinations and evidence collection techniques.
- Both medical and forensic specimens should be collected during the course of the examination. Providing medical and legal (forensic) services simultaneously, i.e. at the same time, in the same place and by the same person, reduces the number of examinations the patient has to undergo and can ensure the needs of the patient are addressed more comprehensively.
- The following universal precautions should be observed at all times during the examination (*54*):

— wear gloves whenever in contact with blood or other body fluids;
— change gloves between patients; it may sometimes be necessary to change gloves during the examination in order to prevent contamination;
— wash hands with soap and water after any exposure to body fluids or blood, between clients, and after removing gloves;
— wear protective eye-wear, masks or face shields if there is a possibility of splashing blood or body fluids into your eyes, face or mouth;
— do not recap used needles;
— do not bend or break needles after use;
— dispose of used needles in special impermeable sharps containers immediately after use.

- The health worker should document all findings as the physical examination proceeds. The patient can thus expect periods of silence during the course of the examination. Make sure that the patient understands that she can stop the procedure at any stage if it is uncomfortable for her and give her ample opportunity to stop the examination, if necessary.
- Always address patient questions and concerns in a non-judgmental, emphatic manner. Use a calm tone of voice.

4.4.2 The "top-to-toe" physical examination

A systematic, "top-to-toe" physical examination of the patient should be conducted in the following step-wise manner (*48*). The numbered list of actions refers to the numbered body parts shown in Fig. 1. The genito-anal examination is described separately (see section 4.4.3). See section 4.5 for guidance on recording and classifying injuries.

Step 1

First note the patient's general appearance and demeanour. Start with the patient's hands; this will reassure the patient. Take the vital signs, i.e. pulse, blood pressure, respiration and temperature. Inspect both sides of both hands for injuries. Observe the wrists for signs of ligature marks. Trace evidence may need to be collected (some jurisdictions require fingernail scrapings).

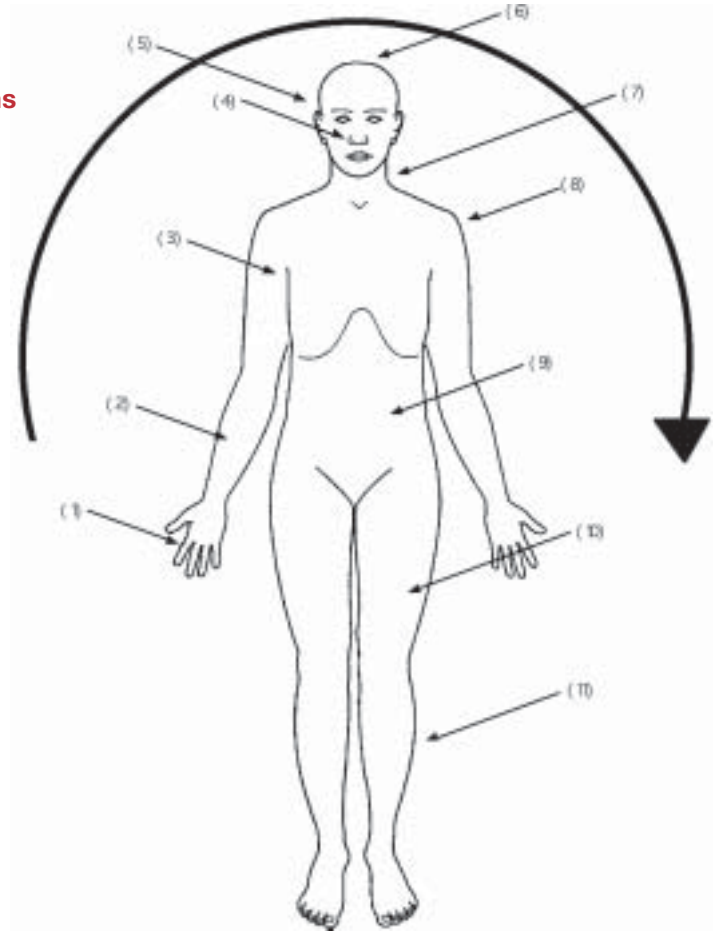
Step 2

Inspect the forearms for defence injuries; these are injuries that occur when the subject raises a limb to ward off force to vulnerable areas of the body. Defensive injuries include bruising, abrasions, lacerations or incised wounds. In dark skinned people bruising can be difficult to see, and thus tenderness and swelling is of great significance. Any intravenous puncture sites should be noted.

Step 3

The inner surfaces of the upper arms and the armpit or axilla need to be carefully observed for signs of bruising. Victims who have been restrained by hands often display fingertip bruising on the upper arms (see Fig. 6). Similarly,

Figure 1 **Inspection sites for a "top-to-toe" physical examination of victims of sexual violence**



when clothing has been pulled, red linear petechial bruising can sometimes be seen.

Step 4

Inspect the face. Black eyes can be subtle. Look in the nose for signs of bleeding. Gentle palpation of jaw margins and orbital margins may reveal tenderness indicating bruising. The mouth should be inspected carefully, checking for bruising, abrasions and lacerations of buccal mucosa. Petechiae on the hard/soft palate may indicate penetration. Check for a torn frenulum and broken teeth. Collect an oral swab, if indicated.

Step 5

Inspect the ears, not forgetting the area behind the ears, for evidence of shadow bruising; shadow bruising develops when the ear has been struck onto the scalp. Use an otoscope to inspect the eardrum.

Step 6

Gentle palpation of the scalp may reveal tenderness and swelling, suggestive of haematomas. Hair loss due to hair pulling during the assault may cause large amounts of loose hair to be collected in the gloved hands of the examiner; alternatively, a gentle combing may recover any loose hair. Electrostatic forces

can, however, cause large amounts of loose hair to be retained in the head until the patient next takes a shower or bath.

Step 7

The neck area is of great forensic interest. Bruising on the neck can indicate a life-threatening assault. Imprint bruising may be seen from necklaces and other items of jewellery on the ears and on the neck. Suction-type bruising from bites should be noted and swabbed for saliva before being touched.

Step 8

The breasts and trunk should be examined with as much dignity and privacy as can be afforded. It is generally most convenient to start with the back. It is possible to expose only that area that is being examined; for example, the gown may be taken aside on the right side of the back and then the left side of the back. The shoulders should be separately viewed. Subtle bruising and more obvious bruising may be seen in a variety of places on the back. If the patient is able to sit up on the couch, the gown can be taken down to the upper breast level just exposing the upper chest on the right and left and then each breast can be examined in turn. Breasts are frequently a target of assault and are often bitten and so may reveal evidence of suction bruises or blunt trauma. If the breasts are not examined, the reasons for not doing so should be documented.

Step 9

The patient can then be reclined for an abdominal examination, that is to say an inspection for bruising, abrasions, lacerations and trace evidence. Abdominal palpation should be performed to exclude any internal trauma or to detect pregnancy.

Step 10

With the patient still in a reclined position, the legs can be examined in turn, commencing with the front of the legs. Inner thighs are often the target of fingertip bruising or blunt trauma (caused by knees). The pattern of bruising on the inner thighs is often symmetrical. There may be abrasions to the knee (as a consequence of the patient being forced to the ground); similarly, the feet may show evidence of abrasions or lacerations. It is important to inspect the ankles (and wrists) very closely for signs of restraint with ligatures. The soles of the feet should also be examined.

Step 11

It is advisable, if possible, to ask the patient to stand for the inspection of the back of the legs. An inspection of the buttocks is also best achieved with the patient standing. Alternatively, the patient may be examined in a supine position and asked to lift each leg in turn and then rolled slightly to inspect each buttock. The latter method may be the only option if the patient is unsteady on her feet for any reason, but does not afford such a good view of the area. Any biological

evidence should be collected with moistened swabs (for semen, saliva, blood) or tweezers (for hair, fibres, grass, soil).

As a general rule, the presence of any tattoos should be documented in the examination record, together with a brief description of their size and shape, as these may become a means of assessing the accuracy of the observations of the examining practitioner in court. Similarly, obvious physical deformities should be noted. If tattoos and obvious deformities are not recorded, the medical examiner should be prepared to justify his/her decision for not so doing. The examiner should weigh up the evidential value of observations of this nature against the prejudicial value they may have when discussed in front of a jury on a case-by-case basis.

The use of Wood's lamps to detect semen on areas of skin where this is suspected is no longer recommended clinical practice. Wood's lamps do not fluoresce semen as well as previously thought, and more reliable methods of detecting semen (e.g. swabs) should therefore be used (see sections 4.4.3 below and 5.2 Forensic specimen collection techniques).

4.4.3 The genito-anal examination

Before embarking on a detailed examination of the genito-anal area, it is important to try and make the patient feel as comfortable and as relaxed as possible. It will greatly assist many patients if each step of the examination is explained to them; for example, say, "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."

Initially the patient should be placed lying on her back with her knees drawn up, heels together and legs gently flopped apart, i.e. in the lithotomy position. The patient's breasts, abdomen, pelvic area and legs can be covered by a sheet until the examination actually takes place, at which point the sheet can be drawn up. Lighting should be directed onto the patient's vulval area. Injuries to the genital or anal regions can cause considerable pain when the area is touched. In some instances, only a limited examination may be necessary; alternatively, analgesia may be required.

The following procedures form the basis of a routine genito-anal examination:

Step 1

The external areas of the genital region and anus should be examined, as well as any markings on the thighs and buttocks. Inspect the mons pubis. The vaginal vestibule should be examined paying special attention to the labia majora, labia minora, clitoris, hymen or hymenal remnants, posterior fourchette and perineum. A swab of the external genitalia should be taken before any digital exploration or speculum examination is attempted (see section 5.2 Forensic specimen collection techniques). A gentle stretch at the posterior fourchette area may reveal abrasions that are otherwise difficult to see, particularly if they are hidden within slight swelling or within the folds of the mucosal tissue. Gently pulling the labia (towards the examiner) will improve visualization of the hymen. Asking the patient to bear down may assist the visualizing of the introitus.

Step 2

If any bright blood is present, it should be gently swabbed in order to establish its origin, i.e. whether it is vulval or from higher in the vagina.

Step 3

A speculum examination allows the examiner to inspect the vaginal walls for signs of injury, including abrasions, lacerations and bruising (see Fig. 2). (Use of a transparent plastic speculum is especially helpful for visualizing the vaginal walls.) Trace evidence, such as foreign bodies and hairs, may be found and, if so, collected (see section 5.2 Forensic specimen collection techniques). The endocervical canal can also be visualized.

This part of the examination may be particularly difficult for the patient, as it may remind her of the assault. It should therefore be introduced gently and its importance explained carefully.

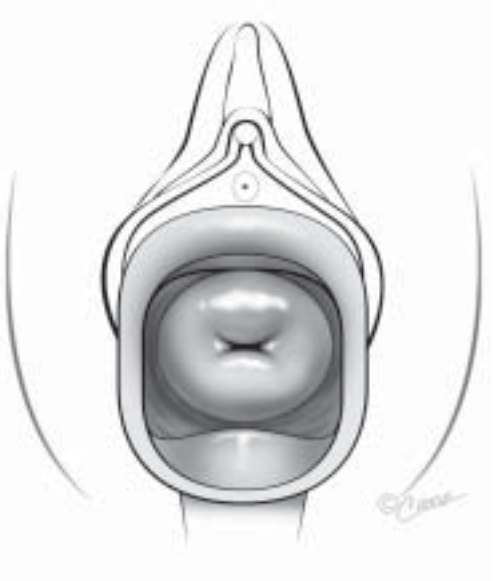


Figure 2 **View of the cervix of a multiparous woman as viewed with a speculum**

Warming of the speculum prior to use is advisable and can be achieved by immersing the instrument in warm water in a sink. Traditionally, the recommended technique for speculum examinations involved inserting the speculum along the longitudinal plane of the vulval tissues and then rotating it into its final position once the initial muscle resistance had relaxed. More recently, however, an alternative technique, one that is generally more comfortable for the subject, has gained widespread acceptance. The duckbill speculum is rested in its broader dimension on the posterior fourchette, allowing the dimension of the object to be anticipated by the vaginal tissues. This also allows some relaxation of the introital tissues prior to insertion, in much the same way as the perianal sphincters do when the examining digit is rested at the opening prior to insertion (see Step 5). With the duckbill speculum resting as described, and the patient in the lithotomy position, the speculum can be smoothly introduced, with no twisting, in a downwards direction, opening the duckbills gently as it progresses. This avoids any contact with the urethra, which is painful, and allows the cervix to be visualized with ease.

In most cases, a speculum examination should be performed as a matter of course. It is particularly relevant if there is significant vaginal or uterine pain post assault, vaginal bleeding or suspicion of a foreign body in the vagina. Furthermore, in assaults that occurred more than 24 hours but less than 96 hours (approximately) prior to the physical examination, a speculum examination should be performed in order to collect an endocervical canal swab (for semen). If a speculum examination is not conducted (e.g. because of patient refusal) it may still be possible to collect a blind vaginal swab (see section 5.2 Forensic specimen collection techniques).

Step 4

Although an anal examination can be performed while the patient is still in the lithotomy position, it is usually easier to do this with the patient in the left lateral position. Thus on completion of the genital examination, ask the patient to roll over on to her side, and face the wall with her legs drawn up. Respectful covering of the thighs and vulva with a gown or sheet during this procedure can help prevent a feeling of exposure. The uppermost buttock needs to be lifted to view the anus. This should be explained. The patient can hold the buttock up herself, if she is comfortable and able to do so. Gentle pressure at the anal verge may reveal bruises, lacerations and abrasions.

Step 5

Digital rectal examinations are recommended if there is a reason to suspect that a foreign object has been inserted in the anal canal, and should be performed prior to a proctoscopy or anoscopy. In a digital rectal examination, the examining finger should be placed on the perianal tissues to allow relaxation of the natural contraction response of the sphincter. Once relaxation is sensed then insertion can take place.

Step 6

Proctoscopy need only be used in cases of anal bleeding or severe anal pain post-assault, or if the presence of a foreign body in the rectum is suspected.

4.5 Recording and classifying injuries

Clinicians and pathologists are frequently required to respond to questions about injuries from investigators, lawyers or the courts. The sorts of things that investigating teams want to know about are:

— the age of an injury;
— how (i.e. the mechanism by which) the injury was produced;
— the amount of force required to produce the injury;
— the circumstances in which the injury was sustained;
— the consequences of the injury.

Injury interpretation is, however, both a complex and challenging matter. It requires a broad-based comprehension of anatomical, physiological and pathological principles. Individuals performing this role should have proven expertise in the field; this expertise should be reinforced by exposure to peer review, continuing education and quality assurance programmes.

A brief overview of the procedures involved in recording and interpreting wounds, including some of the practical difficulties frequently encountered, is given below. Further information can be sought from the recommended reference texts listed in the bibliography.

Without accurate documentation and expert interpretation of injuries, any conclusions drawn about how injuries occurred might be seriously flawed. This will have profound consequences for both the victim and

the accused. Health workers who do not have the necessary training and skills to provide this service are advised to document any injuries, using standard terminology (see section 4.5.2), but to refer the task of injury interpretation to a forensic specialist.

4.5.1 Injury description

Injury interpretation is entirely dependent on the accuracy and completeness of the recorded observations of wounds. Table 6 lists the features of a wound that need to be carefully observed and described in order to support injury interpretation. Adoption of a systematic approach to describing and recording the physical characteristics of wounds will ensure that none of the critical elements is omitted. Ideally, such observations should be recorded contemporaneously in the notes of the medical consultation (see section 4.4 The physical examination).

4.5.2 Classification of wounds

There are a number of advantages of using standard, universally accepted descriptive terms for classifying wounds. Use of a standard terminology not only assists in identifying the mechanism by which the injury was sustained but also contributes to a better understanding of the circumstances in which the injuries may have been sustained. When used correctly, a standardized system of wound classification and description may allow deductions about the weapon or object that caused the injury. Furthermore, an examination of the pattern of injuries may assist in answering questions about whether the injuries were sustained in an accidental, assaultive or self-inflicted manner.

Wounds are generally classified as either abrasions, bruises, lacerations,

Table 6 **Describing features of physical injuries**

FEATURE	NOTES
Site	Record the anatomical position of the wound(s).
Size	The dimensions of the wound(s) should be measured.
Shape	Describe the shape of the wound(s) (e.g. linear, curved, irregular).
Surrounds	Note the condition of the surrounding or the nearby tissues (e.g. bruised, swollen).
Colour	Observation of colour is particularly relevant when describing bruises.
Course	Comment on the apparent direction of the force applied (e.g. in abrasions).
Contents	Note the presence of any foreign material in the wound (e.g. dirt, glass).
Age	Comment on any evidence of healing. Note that accurate ageing is impossible and great caution is required when commenting on this aspect.
Borders	The characteristics of the edges of the wound(s) may provide a clue as to the weapon used.
Classification	Use accepted terminology wherever possible (see section 4.5.2 Classification of wounds).
Depth	Give an indication of the depth of the wound(s); this may have to be an estimate.

incisions, stab wounds or gun shot wounds. The main features of each wound category are summarized below.

Abrasions

Abrasions are defined as *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.

Careful examination of an abrasion may allow identification of the causative implement and the direction of the force applied. There are a number of different types of abrasions; these are subdivided as follows:

— scratches (e.g. produced by fingernails or thorns);
— imprint (whereby the pattern of the weapon may leave a characteristic abrasion on the skin);
— friction (e.g. grazes from contact with carpet or concrete).

Bruises

Bruises are defined as *an area of haemorrhage beneath the skin*. Bruises are also known as a haematomas or contusions.

Bruising follows blunt trauma; the discolouration is caused by blood leaking from ruptured blood vessels. Bruises may also occur within a body cavity or within an organ. When commenting on bruises, caution must be exercised for the following reasons:

- The current consensus view is that the age of a bruise cannot be determined with any degree of accuracy. However, this was previously thought possible and is widely taught in older textbooks.
- The apparent colour of the bruise may be affected by skin pigmentation (e.g. bruising may not be readily visible on darker skin) and by different types of lighting. Furthermore, describing colour inevitably involves a subjective element.
- The site of bruising is not necessarily the site of trauma; for instance:
  — bruising may extend beyond the site of the impact;
  — bruising may appear at a site distant from the impact;
  — visible bruising may be absent despite considerable force being used.
- The shape of the bruise does not necessarily reflect the shape of the weapon used (i.e. blood may infiltrate surrounding tissues).
- The size of the bruise is not necessarily proportional to the amount of force delivered.

Nevertheless, some bruises bear features that may well assist in their interpretation:

- *Bite marks*. These are oval or circular bruises with a pale central area; there may also be some abrasion. In some instances, there may be a discernable dentition pattern. (Measurements and a photographic scale are important here.)

- *Fingertip bruises*. These are caused by the forceful application of fingertips. These usually appear as 1–2 cm oval or round shaped clusters of three to four bruises. There may also be a linear or curved abrasion from contact with the fingernail (see Fig. 6).
- *Patterned (imprint) bruises*. These occur when a bruise takes on the specific characteristics of the weapon used (e.g. the sole of a shoe). A clothing imprint may also occur 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. This type of bruising is usually seen in the face, scalp or eyes after neck compression.
- *Trainline bruises*. These are parallel linear bruises with a pale central area produced by forceful contact with a linear object (e.g. a stick or a baton). See Fig. 7.

Lacerations

Lacerations are defined as *ragged or irregular tears or splits in the skin, subcutaneous tissues or organs resulting from blunt trauma* (e.g. trauma by impact).

The main characteristics of a lacerated wound are:

— ragged, irregular or bruised margins, which may be inverted;
— intact nerves, tendons and bands of tissue within the wound;
— the presence of foreign materials or hair in the wound.

The shape of the laceration may reflect the shape of the causative implement.

Incised wounds

Incised wounds are defined as *injuries produced by sharp edged objects whose length is greater than their depth*.

Incised wounds may be produced by a knife, razorblade, scalpel, sword or glass fragment. It is important to distinguish between lacerations and incised wounds (also referred to as incisions or cuts) as this may assist in identifying the type of causative weapon. Lacerations and incised wounds are compared in Table 7.

Table 7 **Distinguishing incised wounds and lacerations**

FEATURES	INCISED WOUNDS	LACERATIONS
Borders	Sharply defined edges	Ragged irregular margins
Surrounds	Minimal damage	Bruised or abraded
Blood loss	Variable, often profuse	Variable, often relatively small amounts
Contents	Rarely contaminated	Frequently contaminated; tissue bridges often visible

Source: reference (*47*).

Stab wounds

Stab wounds are defined as *incised wounds whose depth is greater than their length on the skin surface*. The depth of such wounds and, in particular, the degree of trauma to deeper structures, will determine the seriousness of the injury, i.e. whether the outcome is fatal or not.

Important points to note with respect to stab wounds include:

- The dimensions of the wound may not be the dimensions of the blade.
- The depth of stab wounds are affected by a number of factors, such as:
  — the amount of force delivered;
  — the robustness of protective clothing;
  — the sharpness of the tip of the blade,
  — tissue resistance and any movement of the victim.
- The dynamics of a stabbing (unless the victim is otherwise immobilized) demand great caution when interpreting the relative positions and movements of assailant and victim.
- There may be no relationship between the external dimensions of the wound and the resultant trauma to internal structures.

Gunshot wounds

Health workers should have a reasonable working knowledge of ballistics and gunshot wounds. However, it is quite likely that treatment of gunshot wounds will become the responsibility of a surgeon and their interpretation may require the assistance of a forensic pathologist. Unless such wounds are a regular part of your practice, you should be prepared to refer cases to more experienced practitioners for analysis.

4.5.3 Genito-anal injuries related to penetration

Trauma to the female genitalia and anus can be caused by forceful penetration. Penetration may be by an erect or semi-erect male penis, by other parts of the body including the fingers and tongue, or by objects of various dimensions and characteristics.

The act of penetration causes the soft tissues around the orifice to stretch. The likelihood and extent of any resultant injuries will depend on:

— the state of the tissues (i.e. size, lubrication, durability);
— size and characteristics of the penetrating object;
— the amount of force used;
— degree of relaxation in the pelvic and perineal musculature;
— the position of the perpetrator and angle of penetration.

The posterior fourchette, the labia minora and majora, the hymen and the perianal folds are the most likely sites for injury, and abrasions, bruises and lacerations are the most common forms of injury (see Figs. 3–5).

The distinction between genital injury caused by consensual penetration and that caused by non-consensual penetration is an important one. Genital injuries may occur during consensual intercourse (*44*), but visible signs of injuries (to the naked eye) are rare, and usually confined to minor abrasions to the posterior fourchette and introitus. Injury to the hymen, sufficient to cause bleeding, may occur in some females previously unaccustomed to sexual intercourse. Anal and rectal injuries are seldom seen after consensual penetration.

On the other hand, not all women who allege sexual assault will have genital injury that is visible on examination performed without magnification. Indeed, in many cases, none would be expected. 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. Most studies indicate that less than 30% of premenopausal women will have genital injuries visible to the naked eye after non-consensual penetration. This figure increases to less than 50% in postmenopausal women (*45, 46*). An understanding of this issue is of fundamental importance in sexual assault medicine.

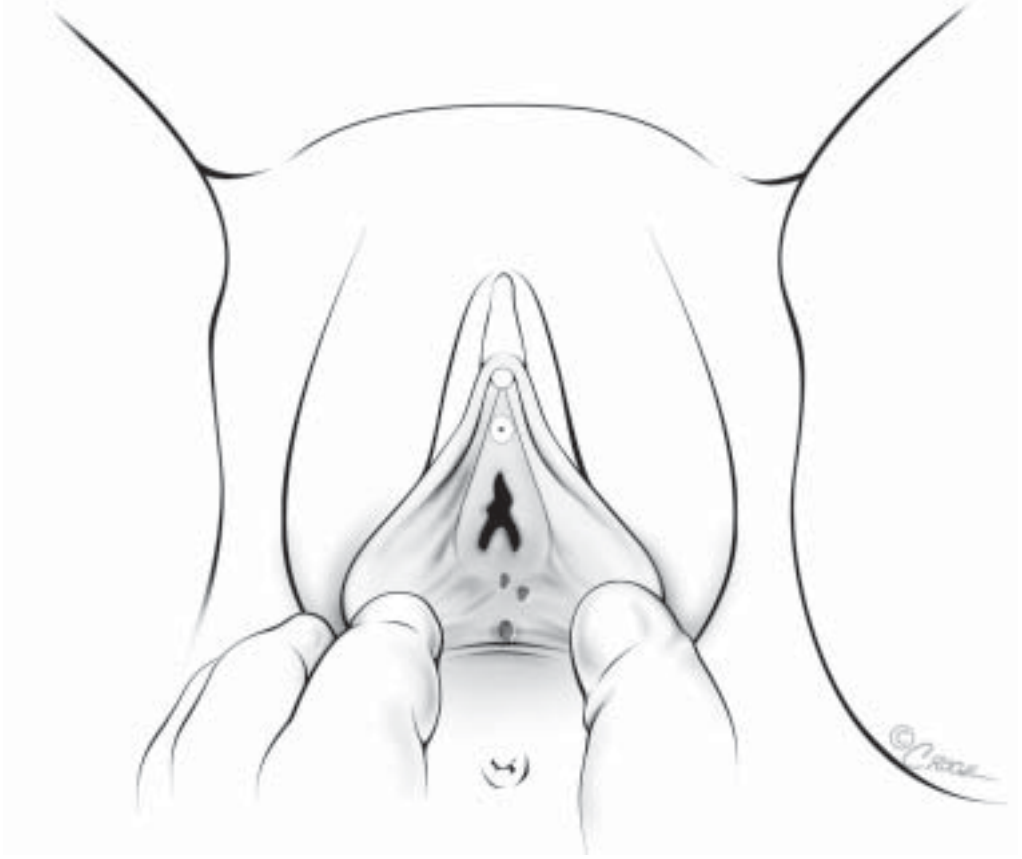


Figure 3 **Posterior fourchette lacerations**

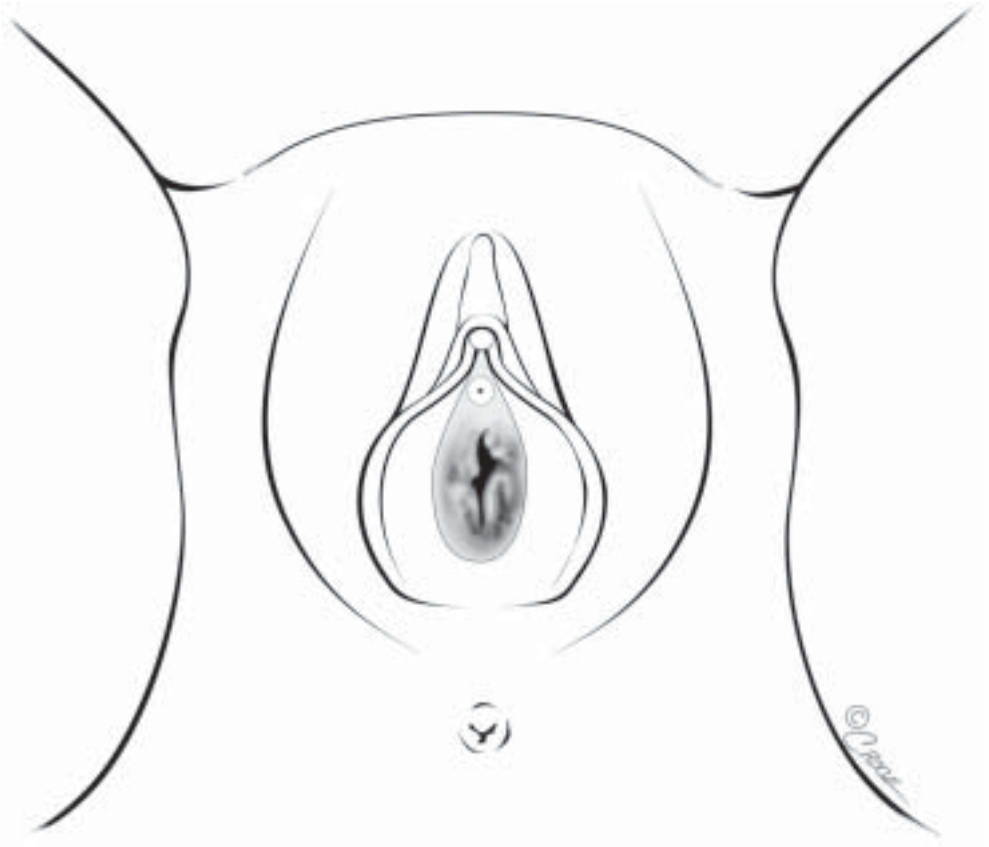


Figure 4 **A bruised hymen**

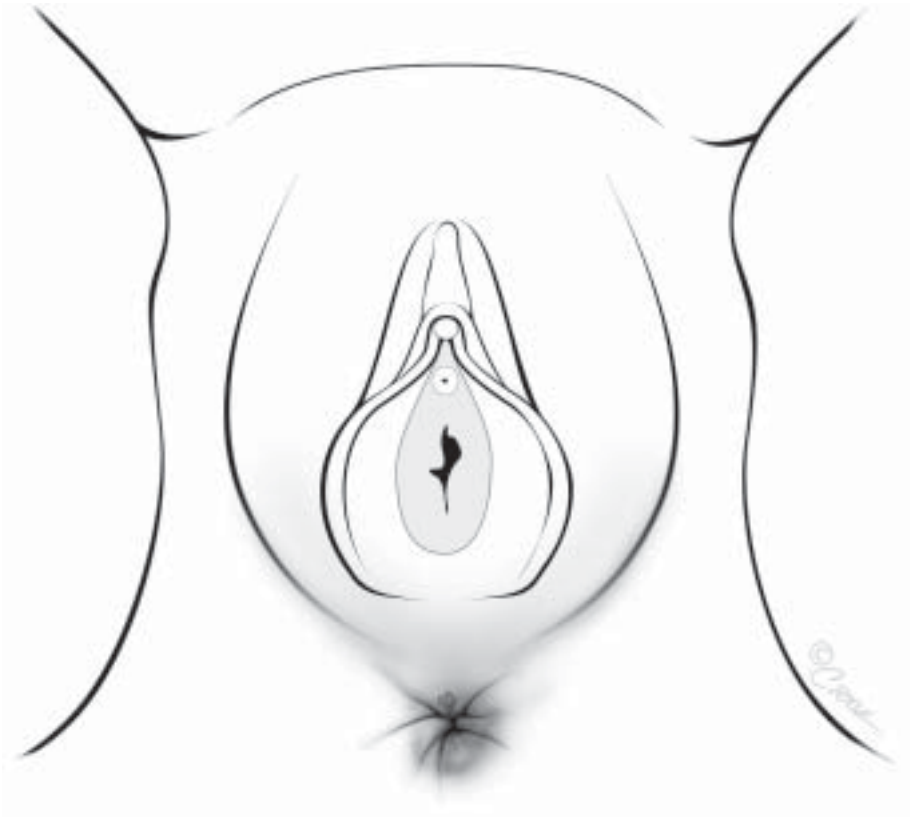


Figure 5 **Perianal bruising and laceration**

4.5.4 Injury patterns and their interpretation

The classification of wounds, according to their main characteristics (as described above) allows certain conclusions to be drawn about their causes. However, as mentioned earlier, this is an area that should be approached with caution: the interpretation of injury patterns for medico-legal purposes should only be performed by practitioners with considerable experience in the field.

Assaults produce a huge range of different types of injury; indeed, injuries are as varied as the assaultive actions that caused them. This diversity complicates the task of injury interpretation and, more often than not, precludes definitive conclusions. Nevertheless, some inferences about the nature and circumstances of an assault can be made from the pattern of injury in many cases; Table 8 lists a selection of violent acts and their most probable associated pattern of injury; frequently observed patterns of bruising, laceration and abrasion are illustrated in Figs. 6–10.

Table 8 **Assaultive injury patterns**

ACTION	SITE	POSSIBLE INJURIES
Bite	Neck	Bite marks, bruising, abrasions Suction-type petechial bruising
	Breasts	Bite marks, abrasions/lacerations to nipples
Blows	Scalp	Bruising (including haematomas), lacerations
	Face	Fractures (cheek, jaw, nose) Dental trauma Intra-oral bruises/abrasions, frenulum damage Facial bruises (slap marks)
	Eyes	Periorbital haematomas (black eyes) Subconjunctival haemorrhage (bleeding into the white of the eye)
	Ears	Eardrum perforation (usually slapping) Bruises/lacerations to ear Bruises on scalp behind ear
	Neck	Laryngeal skeleton trauma Voice changes (i.e. hoarseness, dysphonia), difficulty with swallowing
	Hands	Knuckle abrasions (punching), bruising, lacerations, fractures
	Limbs	Bruises, abrasions, lacerations, fractures
	Trunk	Bruises, abrasions, fractures (especially ribs)
Burns (cigarette burns)		Circular burns 5–15 mm in size on any part of the body Partial or full thickness (flame, scald, contact)
Defensive responses	Limbs	Bruising (especially on medial and lateral aspects of forearms and hand), "warding off" type injuries Incised wounds (knife, bottle) Lacerations, fractures (blunt implements)
	Hands	Incised wounds to palms and web space (grasping sharp weapon) Incised wounds and bruises to dorsum (deflecting blows) Nail damage (may also occur in counter assault, e.g. scratching)
Dragging	Limbs	Abrasions, bruises on exposed skin surfaces
	Trunk	Embedded foreign material

Table 8 ***Continued***

ACTION	SITE	POSSIBLE INJURIES
Falls	Limbs	Abrasions, bruising especially to bony prominences (e.g. elbows, knees and heel of hands) Lacerations, fractures
Fingernail scratches		Linear scratch abrasions to any part of body
Flight	Limbs	Linear curved scratch abrasions from contact with vegetation Bruises from contact with other objects Abrasions, bruises on knees, elbows, hands and hips from falls
Grasping	Ears	Bruising Trauma secondary to earring contact/loss
	Limbs	Fingertip bruises, especially to medial aspect of upper arms and forearms, and medial thighs
Hair pulling		Hair follicle haematomas, bald patches, tenderness
Injections	Upper limbs	Puncture site over the course of a vein
Kissing	Multiple sites	Contact with whiskers may cause superficial abrasions and erythema
Ligature/manual compression	Neck	Ligature marks or imprint bruising (necklace, clothing) Fingertip bruises, abrasions (due to fingernails) Facial petechiae, intra-oral petechiae, conjunctival haemorrhages
Penetration	Mouth	Pharyngeal bruising, palate bruising, frenulum trauma
Restraint	Limbs	Ligature marks (wrists and ankles), fingertip bruising
Squeezing/ pinching	Breasts	Bruising
Whipping with rope/cord	Trunk/limbs	Linear, curved or looped bruising, abrasions Trainline bruises

Sources: adapted from references (*48, 49*).

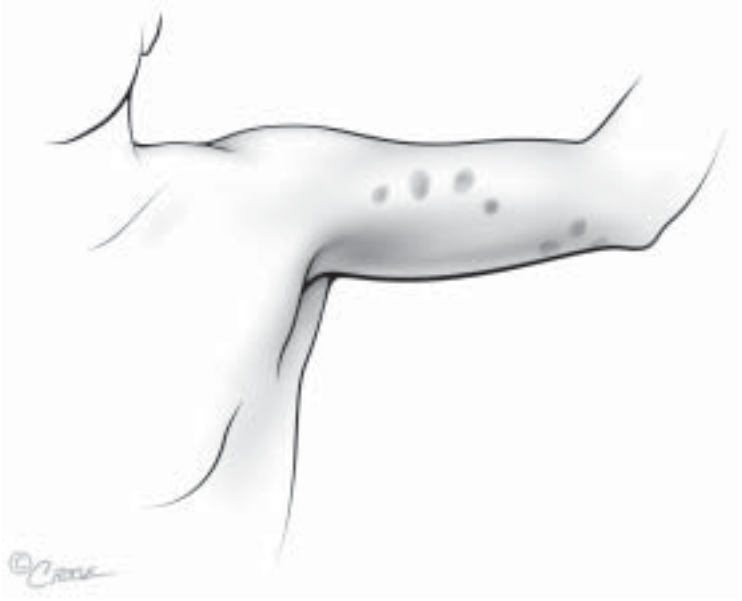


Figure 6 **Fingertip bruising on the upper arm**

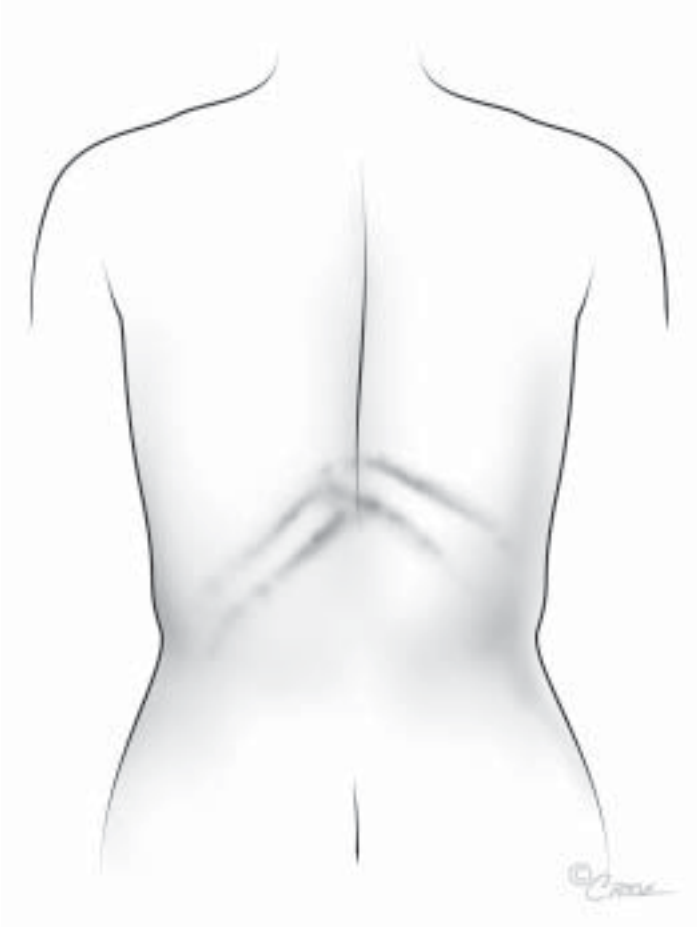


Figure 7 **Trainline bruising on the back**

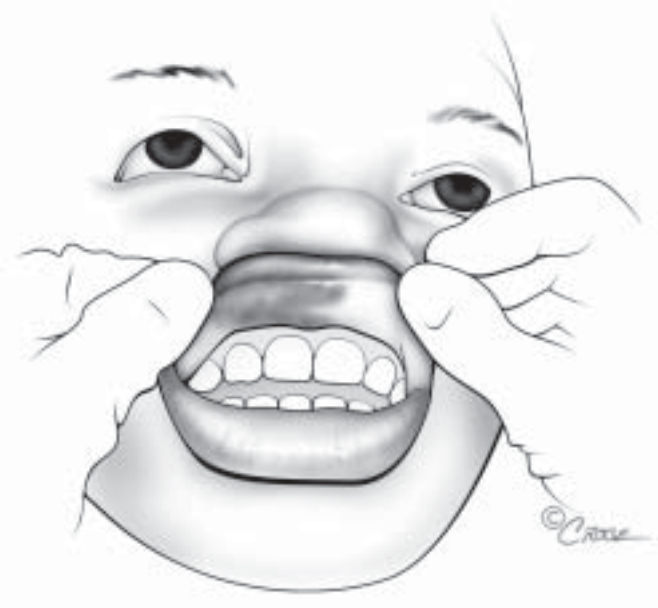


Figure 8 **Bruising on the inner upper lip of a dark-skinned woman**

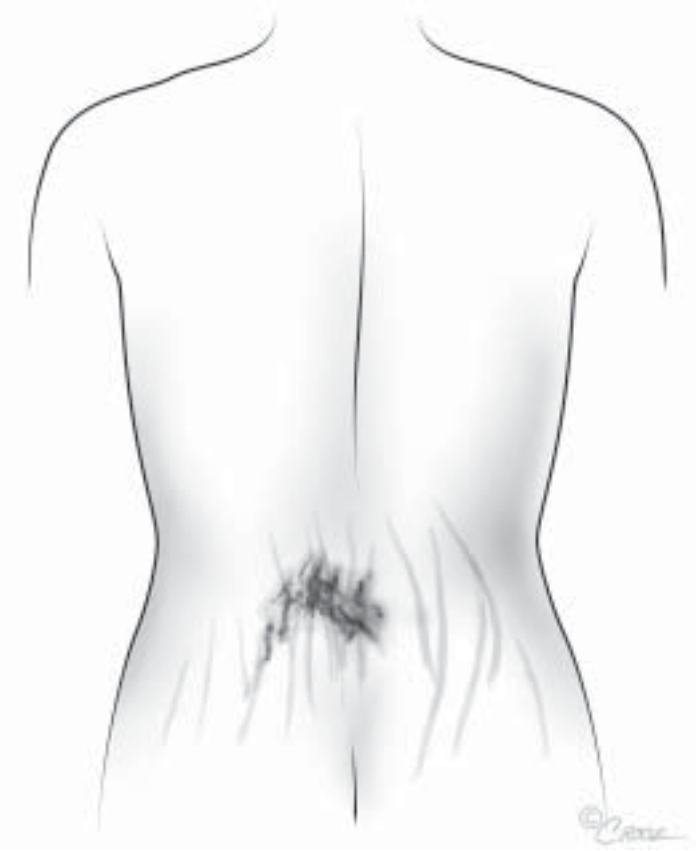


Figure 9 **Abrasions on the lower back from a sexual assault on a rough road surface**

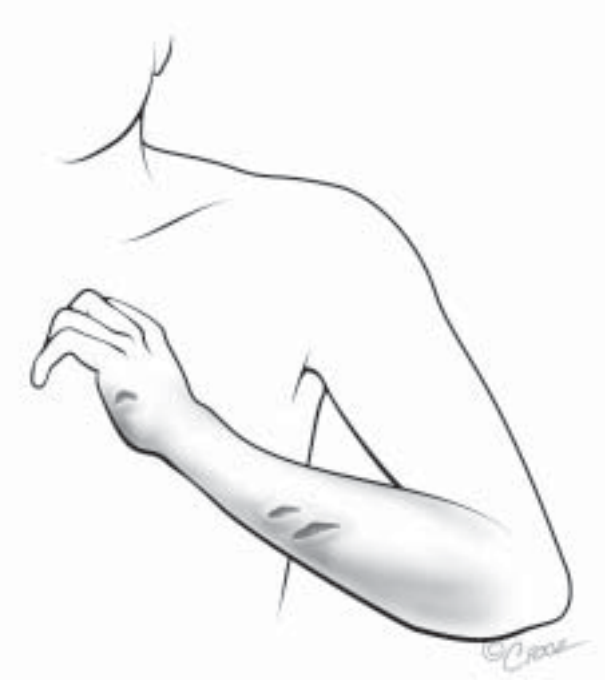


Figure 10 **Defensive lacerations and bruising on forearm and hand**

The following points should be kept in mind when assessing injury patterns in cases involving sexual violence:

- The pattern of injuries sustained during a sexual assault may show considerable variation. This may range from a complete absence of injuries (most frequently) to fatal injuries (very rare).
- There are few situations where it will be possible to state that a specific injury has been sustained in a particular way or with a particular object. In many cases it can only be concluded that the injury was caused by blunt trauma (e.g. "a black eye" or bruising about the eye) or sharp trauma (e.g. an incised wound to the head).
- Falls during an assault or when fleeing from an assailant may produce a number of injuries. These will usually be abrasions or bruises (and occasionally lacerations) to the bony prominences (e.g. forehead, nose, elbows, knees, hips), with the severity of the injuries being proportional to the distance fallen.
- In some situations, individuals may deliberately inflict injuries upon themselves. Reasons for this include an underlying psychiatric illness or secondary gain. These cases require very careful consideration before the diagnosis of self-inflicted injury is made.

Information about injuries and patterns of injury is often vital in cases of sexual assault. In the event of a case proceeding to criminal prosecution, health workers may be required to answer questions about injury patterns and to draw inferences from injury patterns about the circumstances surrounding the alleged assault, either in court or in the form of a written report. A comprehensive assessment of injuries sustained *may* allow comments to be made about:

— whether the injuries were due to blunt or sharp trauma (or both);
— how many applications of force were required to produce the injuries, and the 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 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.

Health workers required to perform this function should consider carefully their responses to each of the above questions. Further guidance on issues relating to the documentation and reporting of cases of sexual violence, including the giving of evidence, is provided in section 8 (Documentation and reporting) of these guidelines.

4.6 Diagnostic tests, specimen collection and forensic issues

Depending on the nature of the assault and the severity of the injuries sustained, the patient may require a number of diagnostic tests, such as X-rays, CT scans and/or ultrasound. In addition, a number of specimens may need to be collected for medical testing purposes (e.g. pregnancy, STIs). Which tests and specimens

are appropriate should be decided on a case-by-case basis. Given the wide variation in collection techniques for medical specimens between jurisdictions, these are not described in detail in this document. Health workers should check with their clinic, hospital or laboratory as to what medical specimens are required, when and how they should be collected, and how long each test takes to process. Guidelines for the treatment of various conditions (e.g. STIs) are, however, provided in section 6 (Treatment and follow-up care).

It will be of great benefit to the patient if any forensic evidence, if relevant, is collected during the medical examination; ideally, the health worker performing the medical assessment should also provide the forensic or medico-legal service, if properly trained to do this. Similarly, the patient will benefit if the forensic examiner is able to provide acute care and/or make referrals as necessary. Forensic specimen collection techniques are described in greater detail in the next section of these guidelines (see section 5 Forensic specimens).

A forensic examination is formally defined as a "medical examination conducted in the knowledge of the possibility of judicial proceedings in the future requiring medical opinion". 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.

It is imperative that health workers who attend victims of sexual violence have a good understanding of the main components and requirements of a forensic examination. Steps which can be taken to ensure adequate skills in this field include:

1. Obtain training in medico-legal matters (see Annex 3).
2. Have access to written material to refer to during and after training.
3. Perform severl (ideally 15–20) forensic examination under supervision.
4. Perform a forensic examination alone.

5 Forensic specimens

SUMMARY

■ The primary aim of a forensic examination is to collect evidence that may help prove or disprove a link between individuals and/or between individuals and objects or places.

■ In sexual violence cases, as in any other criminal investigation, the following principles for specimen collection should be strictly adhered to:

- collect carefully, avoiding contamination;
- collect specimens as early as possible; 72 hours after the assault the value of evidentiary material decreases dramatically;
- label all specimens accurately;
- dry all wet specimens;
- ensure specimens are secure and tamper proof;
- maintain continuity;
- document details of all collection and handling procedures.

■ Health workers should be aware of the capabilities and requirements of their forensic laboratory; there is no point collecting specimens that cannot be tested.

5.1 The purpose of forensic specimens

The objective of forensic evidence is to prove or exclude a physical connection between individuals and objects or places. Such evidence comprises a wide variety of substances or objects, the analysis of which requires specific, often specialized scientific skills.

The close encounter of assailant, victim and crime scene may result in an interchange of traces of evidence (Locard's principle). Biological traces (i.e. hair, blood, semen, skin fragments) may be found on both the victim and assailant; for instance, the victim's blood could get onto the assailant's clothes. Fragments from the scene (e.g. mud, vegetation) may link a victim and assailant to a particular location, or they may each have left traces of clothing or biological traces at the scene.

On the basis of the facts available and information provided by the patient and investigators, the health worker must decide which specimens to collect from the individuals involved. When faced with such decisions, it is important to be mindful of what purpose the specimen will serve, what link is potentially going to be established and whether such a link may assist the investigation of the case. Important points to keep in mind when conducting an examination of a victim of sexual violence with a view to obtaining forensic evidence are highlighted in Box 6.

BOX 6

Examining a victim of sexual violence: forensic considerations

The main features of a forensic examination of sexual assault victims are as follows:

- A consent form may be required. Information gained under informed consent may need to be provided to other parties, in particular, law enforcement authorities (i.e. the police) and the criminal justice system if the patient pursues legal action on the case.
- It takes time to conduct a thorough forensic examination; the examination usually involves a "top-to-toe" inspection of the skin and a genito-anal examination.
- Detailed documentation is required; information so recorded may be used in criminal proceedings.
- Certain areas of the body (e.g. the axilla, behind the ears, in the mouth, the soles of feet) not usually examined as part of a routine medical examination are of forensic interest and must be inspected.
- Unusual specimens, such as clothing, drop sheets and hair, are collected as part of a forensic examination.
- The chain of custody of specimens must be documented.
- Opportunities for follow-up examinations may not arise; it is thus vital to make full use of this single patient contact.

There is a wide range of specimens that could be collected in order to assist the criminal investigation process. It is essential that health workers have a clear understanding of the capabilities and requirements of their forensic laboratory. For instance:

- What specimens can be tested?
- How should individual specimens be collected, stored and transported? It is important to be aware of the fact that all aspects of the collection, transport and analysis of forensic specimens may be subject to legal scrutiny, the results of which may affect the outcome of criminal proceedings.
- How are results made available?

All these questions need to be considered before a forensic service is provided: there is no point collecting specimens that will not or cannot be tested.

5.2 Forensic specimen collection techniques

When collecting specimens for forensic analysis, the following principles should be strictly adhered to:

- *Avoid contamination*. Ensure that specimens are not contaminated by other materials. Wear gloves at all times. Modern DNA assay systems are very sensitive and may detect small amounts of extraneous material.
- *Collect early*. Try to collect forensic specimens as soon as possible. The likelihood of collecting evidentiary material decreases with the passing of time. Ideally, specimens should be collected within 24 hours of the assault; after 72 hours, yields are reduced considerably.
- *Handle appropriately*. Ensure that specimens are packed, stored and transported correctly. Analytical laboratories should be able to provide

guidance on special requirements for specimen handling and storage. As a general rule, fluids should be refrigerated; anything else should be kept dry.

- *Label accurately*. All specimens must be clearly labelled with the patient's name and date of birth, the health worker's name, the type of specimen, and the date and time of collection.
- *Ensure security*. Specimens should be packed to ensure that they are secure and tamper proof. Only authorized people should be entrusted with specimens.
- *Maintain continuity*. Once a specimen has been collected, its subsequent handling should be recorded. Details of the transfer of the specimen between individuals should also be recorded. It is advisable to check with local authorities regarding the protocols for the recording of such information.
- Document collection. It is good practice to compile an itemized list in the patient's medical notes or reports of all specimens collected and details of when, and to whom, they were transferred.

Table 9 lists the range of forensic specimens that are typically of interest in cases of sexual violence, together with notes about appropriate collection techniques and comments on their relevance.

Table 9 **Forensic specimens**

SITE	MATERIAL	EQUIPMENT	SAMPLING INSTRUCTIONS	NOTES
Anus (rectum)	Semen	Cotton swabs and microscope slides	Use swab and slides to collect and plate material; lubricate instruments with water, not lubricant.	1
	Lubricant	Cotton swab	Dry swab after collection.	
Blood	Drugs	Appropriate tube	Collect 10 ml of venous blood.	2
	DNA (victim)	Appropriate tube	Collect 10 ml of blood.	
Clothing	Adherent foreign materials (e.g. semen, blood, hair, fibres)	Paper bags	Clothing should be placed in a paper bag(s). Collect paper sheet or drop cloth. Wet items should be bagged separately.	3
Genitalia	Semen	Cotton swabs and microscope slide	Use separate swabs and slides to collect and plate material collected from the external genitalia, vaginal vault and cervix; lubricate speculum with water not lubricant or collect a blind vaginal swab (see Fig. 11).	1
Hair	Comparison to hair found at scene	Sterile container	Cut approximately 20 hairs and place hair in sterile container.	4
Mouth	Semen	Cotton swabs, sterile container (for oral washings) or dental flossing	Swab multiple sites in mouth with one or more swabs (see Fig. 12). To obtain a sample of oral washings, rinse mouth with 10 ml water and collect in sterile container.	1
	DNA (victim)	Cotton swab		5

Table 9 ***Continued***

SITE	MATERIAL	EQUIPMENT	SAMPLING INSTRUCTIONS	NOTES
Nails	Skin, blood, fibres, etc. (from assailant)	Sterile toothpick or similar or nail scissors/clippers	Use the toothpick to collect material from under the nails or the nail(s) can be cut and the clippings collected in a sterile container.	6
Sanitary pads/ tampons	Foreign material (e.g. semen, blood, hair)	Sterile container	Collect if used during or after vaginal or oral penetration.	7
Skin	Semen	Cotton swab	Swab sites where semen may be present.	1
	Saliva (e.g. at sites of kissing, biting or licking), blood	Cotton swab	Dry swab after collection.	
	Foreign material (e.g. vegetation, matted hair or foreign hairs)	Swab or tweezers	Place material in sterile container (e.g. envelope, bottle).	
Urine	Drugs	Sterile container	Collect 100 ml of urine.	2

1. The following general procedures apply to the use of swabs for the collection of various materials for forensic analysis:
   - Use only sterile, cotton swabs (or swabs recommended by your laboratory).
   - Do not place the swabs in medium as this will result in bacterial overgrowth and destruction of the material collected by the swab. Swabs placed in medium can only be used for the collection of bacteriological specimens.
   - Moisten swabs with sterile water or saline when collecting material from dry surfaces (e.g. skin, anus).
   - If microscopy is going to be performed (e.g. to check for the presence of spermatozoa), a microscope slide should be prepared. Label slide and after collecting the swab, rotate the tip of the swab on the slide. Both swab and slide should be sent to the laboratory for analysis.
   - All swabs and slides should be dried before sealing in appropriate transport containers. A hole or cut may be made in the swab sheath to allow drying to continue.
2. Toxicological analysis may be indicated if there is evidence that a victim may have been sedated for the purpose of a sexual assault. In cases where the patient presents within 12–14 hours after possible drug administration, blood samples should be taken; urine samples are appropriate where there are longer delays. Seek the advice of the laboratory regarding suitable containers for specimens of this type.
3. There are a number of ways in which foreign material attached to a victim's skin or clothing can be collected. If there is a possibility that foreign materials have adhered to the victim's skin or clothing, the victim should be asked to undress over a large sheet of paper. Any loose material will fall onto the paper and can either be collected with a pair of tweezers or the entire sheet of paper can be folded in on itself and sent to the laboratory. Alternatively, the victim's clothing can be collected and sent to the laboratory. If clothing is wet, however, it should be dried before being packaged up or sent to the laboratory without delay.
4. Collection of scalp hair is rarely required, but may be indicated if hair is found at the scene. About 20 hairs can be plucked or cut. Ask for guidance from the laboratory regarding the preferred sampling techniques for scalp hair. The victim's pubic hair may be combed if seeking the assailant's pubic hair; the combings should be transported in a sterile container.
5. Firmly wiping a cotton swab on the inner aspect of a cheek (i.e. a buccal swab) will collect enough cellular material for analysis of the victim's DNA. Alternatively, blood may be taken. Buccal swabs should be dried after collection. They should not be collected if there is any possibility of foreign material being present in the subject's mouth (e.g. if ejaculation into the victim's mouth occurred).
6. If there is a history of the victim scratching the assailant, material collected from under the nails of the victim may be used for DNA analysis.
7. Sanitary pads or tampons should be air-dried if possible. They should then be wrapped in tissue and placed in a paper bag.

The presence of semen is best confirmed by taking a swab followed by microscopy. Fig. 11 illustrates the recommended technique for taking a blind vaginal swab. The swab is gently introduced beyond the hymen, taking care not to touch the external structures as it is being introduced and is advanced towards the vaginal vault. Fig. 12 demonstrates how to swab the mouth if there has been an allegation of ejaculation into the mouth. As the spermatozoa and semen tend to collect in the spaces between the teeth and the gingival margins of the lower jaw, a dry swab should be firmly but gently placed in the spaces between the teeth. This swab should be dried, capped and labelled.

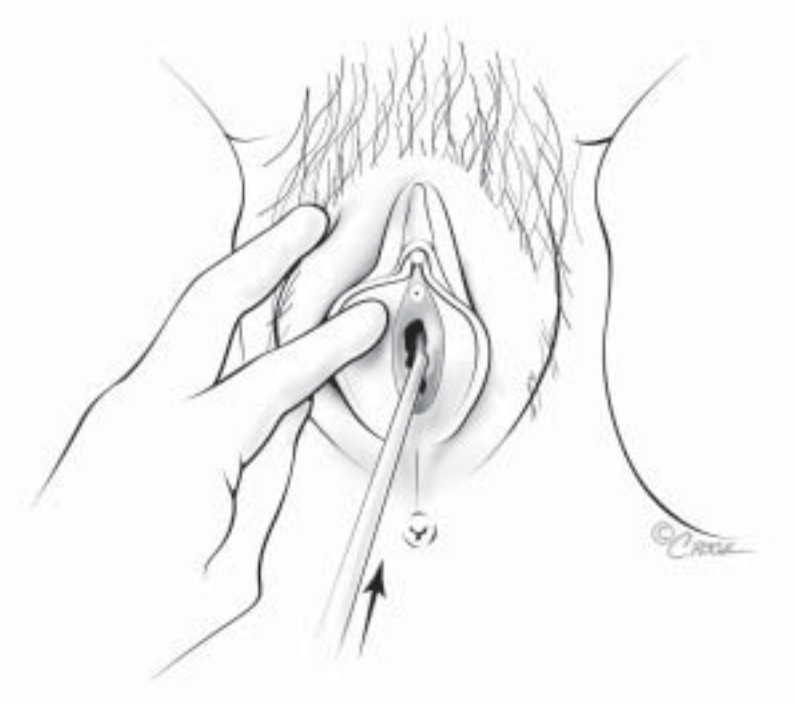


Figure 11 **Taking a blind vaginal swab**

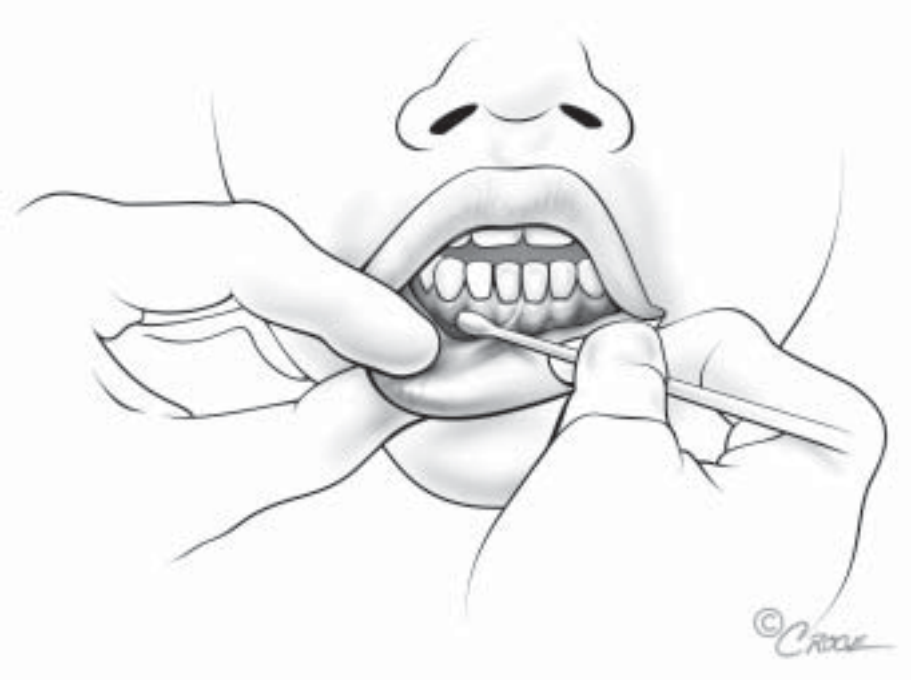


Figure 12 **How to perform a swab of the mouth for spermatozoa**

6 Treatment and follow-up care

SUMMARY

- Exposure to sexual violence is associated with a range of health consequences for the victim. Comprehensive care must address the following issues: physical injuries; pregnancy; STIs, HIV and hepatitis B; counselling and social support; and follow-up consultations.
- The possibility of pregnancy resulting from the assault should be discussed. If the woman is first seen up to 5 days after the assault took place, emergency contraception should be offered. If she is first seen more than 5 days after the assault, she should be advised to return for pregnancy testing if she misses her next period.
- If sexual violence results in a pregnancy that a woman wishes to terminate, referral to legal abortion services should be made.
- When appropriate, patients should be offered testing for chlamydia, gonorrhoea, trichomoniasis, syphilis, HIV and hepatitis B; this may vary according to existing local protocols.
- The decision to offer STI prophylaxis should be made on a case-by-case basis. Routine prophylactic treatment of all patients is not generally recommended.
- Health workers must discuss thoroughly the risks and benefits of HIV post-exposure prophylaxis so that they can help their patients reach an informed decision about what is best for them.
- Social support and counselling are important for recovery. Patients should receive information about the range of normal physical and behavioural responses they can expect, and they should be offered emotional and social support.
- All patients should be offered access to follow-up services, including a medical review at 2 weeks, 3 months and 6 months post assault, and referrals for counselling and other support services.

6.1 Physical injuries

Patients with severe, life-threatening conditions should be referred for emergency treatment immediately. Patients with less severe injuries, for example, cuts, bruises and superficial wounds can usually be treated in situ by the examining health care worker or other nursing staff. Any wounds should be cleaned and treated as necessary. The following medications may be indicated:

— antibiotics to prevent wounds from becoming infected;
— a tetanus booster or vaccination (according to local protocols);
— medications for the relief of pain, anxiety or insomnia.

6.2 Pregnancy prevention and management

Most female victims of sexual violence are concerned about the possibility of becoming pregnant as a result of the assault. If a woman seeks health care within a few hours and up to 5 days after the sexual assault, emergency contraception should be offered (see section 6.2.1). If she presents more than 5 days after the assault she should be advised to return for pregnancy testing if she misses her next menstrual period (see section 6.2.2).

6.2.1 Emergency contraception

The most widely used means of pregnancy prevention is the oral administration of the emergency contraceptive pill (ECP), otherwise known as the "morning after pill". ECPs act by preventing or delaying ovulation, by blocking fertilization, or by interfering with implantation. They are not abortion pills and do not affect an existing pregnancy (*55*).

Criteria for administering ECPs include:

— a risk of pregnancy;
— patient presents for treatment within 5 days of the assault and wants to prevent pregnancy;
— patient has a negative pregnancy test or it has been determined that she is not currently pregnant (if pregnancy cannot be ruled out with certainty, ECPs can still be prescribed so long as the patient is informed that if she is already pregnant, the pills will not be effective but neither will they affect the pregnancy nor harm the foetus).

There are no known medical conditions for which ECP use is contraindicated. Medical conditions that limit the continuous use of oral contraceptive pills are not relevant for the use of ECPs (*56*). Some jurisdictions require the patient to sign an informed consent form for emergency contraception.

ECP dosing regimens

Pre-packaged ECPs are available in some, but not all, countries. If pre-packaged pills are not available, other oral contraceptives can be substituted (the placebo tablets must not be used).

There are two main categories of ECPs, the combined estrogen-progesterone pill, and the progestin-only pill (i.e. levonorgestrel only). The preferred regimen for emergency contraception is the latter; relative to the progestin-only pill, the combined estrogen-progesterone pill appears to be less effective and more likely to cause side-effects such as nausea and vomiting (*57*). With all ECPs, the sooner they are taken after the assault, the more effective they are.

The recommended dosing regimens for ECPs are given in Table 10; important points are as follows:

- Progestin-only ECPs can be given in a single dose, up to 5 days after unprotected intercourse (*58*).
- In the absence of progestin-only pills, combined estrogen-progesterone pills can be given in two doses, 12 hours apart and within 72 hours of the assault.

Table 10 **Sample emergency contraception regimens**[a]

REGIMEN	PILL COMPOSITION (PER DOSE	BRAND NAMES	1ST DOSE (NO. OF PILLS)	2ND DOSE (NO. OF PILLS)
Levonorgestrel only	LNG 750 µg	Levonelle-2 NorLevo Plan B Postinor-2 Vikela	2	NA
	LNG 30 µg	Microlut Microval Norgeston	50	NA
	LNG 37.5 µg	Ovrette	40	NA
Combined estrogen-progesterone	EE 50 µg + LNG 250 µg or EE 50 µg + NG 500 µg	Eugynon 50 Fertilan Neogynon Noral Nordiol Ovidon Ovral Ovran Tetragynon/PC-4 Preven	2	2
	EE 30 µg + LNG 150 µg or EE 30 µg + NG 300 µg	Lo/Femenal Microgynon 30, Nordette Ovral L Rigevidon	4	4

EE = ethinylestradiol; LNG = levonorgestrel; NG = norgestrel; NA = not applicable.

[a] Levonorgestrel-only pills should be given in a single dose within 5 days of the assault. The first dose of a combined ECP regimen should be given within 72 hours of the assault, and the second dose 12 hours after the first dose.

Source: Adapted from reference (*55*).

- If the patient vomits within 1 hour of taking ECPs the dose needs to be repeated (*55*).

Patients who are prescribed ECPs must be fully briefed about their medication; patient information is summarized in Box 7.

Side effects

Although nausea and vomiting, and breast tenderness have been associated with the use of ECPs in some patients, symptoms are usually only brief and mild. Women may also have some spotting/bleeding after taking ECPs. Serious side effects are rare.

6.2.2 Pregnancy testing and management

- Female patients should be assessed for the possibility of pregnancy. When available, pregnancy testing kits can be offered. However, most of the testing kits commonly available will not detect a pregnancy before expected menses.

BOX 7

Instructions and information for patients prescribed ECPs

Patients who are offered emergency contraception to prevent pregnancy following sexual assault must be made aware of the following facts about ECPs:

- The risk of becoming pregnant as a result of an assault will be decreased if the ECPs are taken within 5 days of the assault.
- ECPs are not 100% effective.
- ECPs do not cause abortion. They prevent or delay ovulation, block fertilization, or interfere with implantation; they will not affect an existing pregnancy.

Instructions for patients prescribed ECPs are as follows:

- Take pills as directed (see Table 10). (Note: The number of pills varies depending on the type of regimen prescribed).
- The pills may cause nausea and vomiting. If vomiting occurs within 1 hour of taking the ECPs, repeat the same dosage regimen.
- In most cases, the patient's next menstrual period will occur around the expected time or earlier. If it is delayed, a pregnancy test should be performed to assess the possibility of pregnancy. ECPs do not cause immediate menstruation.

Finally, patients should be advised that if they experience any of the following symptoms, they should seek help immediately:

— severe abdominal pain;
— severe chest pain;
— shortness of breath;
— severe headaches;
— blurred vision or loss of vision;
— severe pain in the calf or thigh.

Advise the patient to make sure she gets tested for pregnancy in the event that she misses her next period.

- In the event of a confirmed pregnancy patients should be fully informed of their rights and briefed as to their options.

The choices to be made are then:

— maintaining the pregnancy, and either keeping the infant or giving up the infant for adoption;
— terminating the pregnancy.

In order to advise their patients, health workers must have a good working knowledge of the law governing matters of this nature as it applies to their local jurisdiction. In many countries where abortion is otherwise illegal, pregnancy termination is allowed after rape. If a woman wishes to terminate her pregnancy she should be referred to legal, safe abortion services.

Choices about emergency contraception and pregnancy termination are personal choices that can only be made by the patient herself. Your role is to provide the necessary information to help your patient make the decision that suits her best. Above all, respect your patient's decision.

6.3 Sexually transmitted infections

Victims of sexual violence may contract a sexually transmitted infection (STI) as a direct result of the assault. Infections most frequently contracted by sexual violence victims, and for which there are effective treatment options, are:

— chlamydia;
— gonorrhoea;
— syphilis;
— trichomoniasis.

Victims of sexual violence may also be at risk of contracting human papilloma virus (HPV), herpes simplex virus type 2 (HSV-2), HIV and the hepatitis B virus; the latter two are covered separately (see sections 6.4 and 6.5, respectively).

6.3.1 STI testing

Where appropriate tests and laboratory facilities exist, the following tests for STIs should be offered:

— cultures for *Neisseria gonorrhoeae* and *Chlamydia trachomatis* (the nucleic acid amplification tests can be substituted for culture);
— wet mount and culture for *Trichomonas vaginalis*;
— blood sample for syphilis, HIV and hepatitis B testing (see sections 6.4 and 6.5, respectively).

If the test results are positive, patients can be prescribed treatment according to the regimens listed in Tables 11 and 12. It is important to note that negative test results do not necessarily indicate a lack of infection as STIs can take between 3 days and 3 months to incubate and become identifiable through laboratory testing. Thus if the sexual assault was recent, any cultures will most likely be negative unless the victim already has a STI. Follow-up tests, at a suitable interval to account for each respective infection, are therefore recommended in the case of negative test results. Health care workers should follow national and local protocols on STI testing and diagnosis.

6.3.2 Prophylactic treatment for STIs

The decision to offer prophylactic treatment should be made on a case-by-case basis after the physical examination (see Tables 11 and 12 for recommended treatment regimens that can also be used for prophylaxis). Routine prophylactic treatment of patients who have been sexually assaulted is not recommended, as evidence regarding the effectiveness of this strategy is scant. Practitioners

Table 11 **WHO recommended STI treatment regimens (may also be used for prophylaxis)[a]**

STI	MEDICATION	ADMINISTRATION ROUTE AND DOSAGE
Gonorrhoea	Ciprofloxacin[b]	500 mg orally in a single dose
	or	
	Ceftriaxone	125 mg IM in a single dose
	or	
	Cefixime	400 mg orally in a single dose
	PLUS	
Chlamydia	Azithromycin	1 g orally in a single dose
	or	
	Doxycycline[b]	100 mg orally twice a day for 7 days
	PLUS	
Trichomoniasis and bacterial vaginosis	Metronidazole[c]	2 g orally in a single dose or 1 g orally every 12 hours for 1 day
Syphilis	Benzathine penicillin G[d]	2.4 million IU IM in a single dose
	or	
	Doxycycline[b,e]	100 mg orally twice a day for 14 days
	or	
	Tetracycline[b,e]	500 mg orally 4 times a day for 14 days

IM = intramuscularly; IU = International Units.

[a] The following regimens are intended to be guidelines only and are not inclusive of all available treatment regimens for STIs. Accepted local regimens and protocols should be followed as appropriate.
[b] Contraindicated during pregnancy (see Table 12).
[c] Contraindicated in the 1st trimester of pregnancy.
[d] If not allergic to penicillin.
[e] If allergic to penicillin.

Source: adapted from reference (*59*)

should follow national and local protocols on this matter. Further guidance on STI treatment (including prophylactic treatment) is provided in the latest edition of the WHO *Guidelines for the Management of Sexually Transmitted Infections* (*59*).

6.4 HIV/AIDS

Although there are no accurate data on the number of victims of sexual violence who become infected with HIV as a result of an assault, the risk of contracting HIV from sexual violence is estimated to be relatively low (*20*, *25*, *60*).

The likelihood of acquiring HIV from sexual assault depends on several factors (*20*, *25*, *60*):

— type of assault (i.e. vaginal, oral, anal);
— vaginal or anal trauma (including bleeding);
— whether and where on, or in, the body ejaculation occurred;
— viral load of ejaculate;
— presence of STI(s);
— presence of genital lesions in either the victim or perpetrator;
— intravenous drug use by perpetrator;
— frequency of assaults;
— number of perpetrators;

Table 12 **WHO recommended STI treatment regimens for pregnant women (may also be used for prophylaxis)[a]**

STI	MEDICATION	ROUTE OF ADMINISTRATION AND DOSAGE
Gonorrhoea	Ceftriaxone	125 mg IM in a single dose
	or	
	Cefixime	400 mg orally in a single dose
	PLUS	
Chlamydia	Erythromycin	500 mg orally 4 times a day for 7 days
	or	
	Amoxicillin	500 mg orally 3 times a day for 7 days
	or	
	Azithromycin	1 g orally in a single dose
	PLUS	
Trichomoniasis and bacterial vaginosis	Metronidazole[b]	2 g orally in a single dose or 1 g orally every 12 hours for 1 day
Syphilis	Benzathine penicillin G[c]	2.4 million IU IM in a single dose
	or	
	Erythromycin[d]	500 mg orally 4 times a day for 14 days

[a] The following regimens are intended to be guidelines only and are not inclusive of all available treatment regimens for STIs. Accepted local regimens and protocols should be followed as appropriate.
[b] Contraindicated in the 1st trimester of pregnancy.
[c] If not allergic to penicillin.
[d] If allergic to penicillin. If pregnant patients are allergic to penicillin it is recommended that they undergo desensitization and then be treated with penicillin.

Source: adapted from reference (*59*)

— HIV status of perpetrator(s);
— high prevalence of HIV in the area;
— whether a barrier contraceptive method was used.

Male victims of sexual violence have a higher risk of acquiring HIV from an assault as they are usually penetrated anally (*25*, *60*). Incarcerated males are likely to be at greater risk, given the high prevalence of HIV in prison populations and the fact that incarcerated males are at an increased risk of sexual violence relative to the general population.

6.4.1 HIV testing

Sexual assault victims should be offered a baseline test for HIV. If there are appropriate facilities for confidential HIV testing and counselling, this could be done on-site. Alternatively, the patient could be referred to a HIV specialist or to a centre that specializes in confidential HIV testing and counselling.

Appropriate counselling services should be made available before and after HIV testing. Ideally, these services should be available on site. If not, the appropriate referrals should be arranged.

6.4.2 Post-exposure prophylaxis

Post-exposure prophylaxis for HIV is an area where practice is changing frequently. Although the recommendations given here are valid at the time of writing, it is possible that they may change in the near future. For these reasons health workers are strongly urged to:

- maintain a knowledge of the current recommendations in this field;
- familiarize themselves with local or national policy and/or guidelines;
- ensure that they are aware of the costs, risks and benefits of the various regimes so that they are able to fully inform their patients of these issues.

At the present time, routine prophylaxis for HIV is a matter of considerable controversy and not a universally accepted standard of practice. The risk factors for acquiring HIV from a sexual assault (see list in section 6.4) will determine whether or not PEP should be offered to a patient. Health workers should refer to local protocols dealing with PEP, if they exist. The patient and health worker must evaluate the risks and benefits of initiating or refraining from post-exposure prophylactic (PEP) treatment and decide together the best option for the patient (*20*, *60*).

The patient needs to be fully informed of the following:

— the limited data regarding the efficacy of PEP;
— possible side effects of the medications;
— the need for strict compliance when taking the medications;
— length of treatment;
— importance of follow-up;
— the need to begin treatment immediately for maximal effect of medications.

If prescribed, PEP should be initiated within 72 hours of an assault and be given for 28 days. Antiemetics should be offered to counteract the side effects of the medication. Patient liver enzyme levels should be measured and a complete blood count (CBC) made prior to the commencement of PEP (to establish baseline values) and then monitored at regular intervals until the treatment has been completed.

If the initial test results for HIV were negative, patients should have the test repeated at 6, 12 and 24 weeks after the assault.

6.5 Hepatitis B

Victims of sexual violence may be at risk for hepatitis B and should therefore be offered testing and immunization. A variety of hepatitis B vaccines, with varying dosages and immunization schedules, are available throughout the world. Health workers should use the appropriate type of vaccine, dosage and immunization schedule for their local area (*61*).

Guideline protocols for the administration of the hepatitis B vaccine, according to patient immunization status, are given in Table 13. Generally speaking, it is not necessary to administer hepatitis B immune globulin (HBIG) unless the perpetrator is known to have acute hepatitis B. The administration of HBIG or the hepatitis vaccine is not contraindicated in pregnant women.

Table 13 **Hepatitis B immunization for victims of sexual violence**

PATIENT IMMUNIZATION STATUS	TREATMENT GUIDELINES
Never vaccinated for hepatitis B	First dose of vaccine should be administered at the initial visit, the second dose should be administered 1–2 months after the first dose, and the third dose should be administered 4–6 months after the first dose. The vaccine should be administered intramuscularly in the deltoid region. A vaccine without (HBIG) can be used.
Not completed a series of hepatitis B vaccinations	Complete the series as scheduled.
Completed a series of hepatitis B vaccinations	No need to re-vaccinate.

6.6 Patient information

On completion of the assessment and medical examination, it is important to discuss any findings, and what the findings may mean, with the patient. In particular: (*20*, *32*, *61*):

- Give the patient ample opportunity to voice questions and concerns.
- Reassure the patient that she did not deserve to be sexually assaulted and that the assault was not her fault.
- Teach patients how to properly care for any injuries they have sustained.
- Explain how injuries heal and describe the signs and symptoms of wound infection.
- Teach proper hygiene techniques and explain the importance of good hygiene.
- Discuss the signs and symptoms of STIs, including HIV, and the need to return for treatment if any signs and symptoms should occur. Stress the need to use a condom during sexual intercourse until STI/HIV status has been determined.
- Explain the importance of completing the course of any medications given.
- Discuss the side effects of any medications given.
- Explain the need to refrain from sexual intercourse until all treatments or prophylaxis for STIs have been completed and until her sexual partner has been treated for STIs, if necessary.
- Explain rape trauma syndrome (RTS) and the range of normal physical, psychological and behavioural responses that the patient can expect to experience to both the patient and (with the patient's permission) family members and/or significant others. Encourage the patient to confide in and seek emotional support from a trusted friend or family member.
- Inform patients of their legal rights and how to exercise those rights.
- Give patients written documentation regarding:
  — any treatments received;
  — tests performed;
  — date and time to call for test results;
  — meaning of test results;
  — date and time of follow-up appointments;
  — information regarding the legal process.

- Assess for patient safety. If it is not safe for the patient to return home, make appropriate referrals for shelter or safe housing, or work with her to identify a safe place that she can go to. Discuss strategies that may help prevent another assault.
- Stress the importance of follow-up examinations at two weeks and three and six months.
- Tell the patient that she can telephone or come into the health care facility at any time if she has any further questions, complications related to the assault, or other medical problems.

6.7 Follow-up care

6.7.1 Medical review

Follow-up visits are recommended at 2 weeks, 3 months and 6 months post assault (*20, 32*).

The 2-week follow-up visit

As part of the 2-week post-assault visit, the following routine tasks and checks should be performed:

- Examine any injuries for proper healing.
- Photograph injuries if indicated (i.e. to document healing, comparisons in court).
- Check that the patient has completed the course of any medications given for STIs.
- Obtain cultures and draw blood to assess STI status, especially if prophylactic antibiotics were not given at the initial visit.
- Discuss results of any tests performed.
- Test for pregnancy if indicated. If pregnant, advise about options.
- Remind patients to return for their hepatitis B vaccinations in 1 month and 6 months, other immunizations as indicated, and HIV testing at 3 and 6 months or to follow-up with their usual health care provider.
- Make follow-up appointments.
- Assess the patient's emotional state and mental status, and encourage the patient to seek counselling if they have not yet done so.

The 3-month follow-up visit

At 3 months post assault:

- Test for HIV. Make sure that pre- and post-testing counselling is available or make the appropriate referral. Assess pregnancy status and provide advice and support.
- Discuss results.
- Draw blood for syphilis testing if prophylactic antibiotics were not given previously.
- Assess patient's emotional state and mental status and encourage the patient to seek counselling if they have not yet done so.

The 6-month follow-up visit

At 6 months post assault:

- Test for HIV. Make sure that pre- and post-testing counselling is available or make an appropriate referral.
- Discuss results.
- Administer the third dose of the hepatitis B vaccine.
- Assess the patient's emotional health and refer as necessary.

6.7.2 Counselling and social support

Not all victims of sexual violence react in the same way. Some victims experience immediate psychological distress, others short-term and/or long-term psychological problems. The amount and length of social support and/or psychological counselling required by victims of violence varies enormously, depending on the degree of psychological trauma suffered and the victim's own coping skills and abilities. The level of social support post assault is therefore best determined on a case-by-case basis. Unfortunately, many victims of sexual violence do not pursue counselling; according to Campbell (*36*), for example, only about 24–40% of victims ever seek counselling post assault.

Male victims tend to be especially reluctant to go for counselling, but in fact have much the same needs as women in terms of counselling and crisis intervention post assault. Men should therefore be strongly encouraged to seek counselling and to this end, the following approaches may be useful:

— explain that counselling and social support will help to facilitate recovery;
— listen carefully to the history of the event, ask about his concerns and address them appropriately;
— explain to him that he did not deserve to be sexually violated;
— reinforce that the assault was not his fault;
— stress that sexual violence is an issue of power and control.

Counselling services take a variety of forms, and victims interested in counselling can choose between individual, family or group therapies, and/or opt for formal or more informal support groups. Overall, social support in a group setting is generally recommended as it offers the following benefits:

— it helps to decrease the isolation that victims often feel;
— it provides a supportive atmosphere;
— victims are encouraged to share their experiences;
— it helps victims to establish their own support network.

The group experience is especially helpful to victims who have little or no existing social support. However, individual therapy may be better for victims who have pre-existing psychopathology and thus find group settings more difficult to cope with.

Crisis intervention, critical incident stress debriefing, cognitive-behavioural therapy and feminist therapy are all forms of treatment that have been reported to work well with sexual assault victims (*32, 34, 36*). Regardless of the type of

therapy used or chosen, the therapist should have special training in matters relating to sexual violence.

The role of therapy, or psychological counselling, in recovery is well established, yet many victims do not have access to formal services of this nature. In such cases, informal systems of social support are vital to the healing process and should be discussed with the patient.

6.7.3 Referrals

Patients should be given both verbal and written referrals for support services which may include:

— rape crisis centres;
— shelters or safe houses;
— HIV/AIDS counselling;
— legal aid;
— victim witness programmes;
— support groups;
— therapists;
— financial assistance agencies;
— social service agencies.

The types of referrals given will vary depending on the patient's individual needs and circumstances, and also on the availability of facilities and resources. Health care providers should be familiar with the full range of formal and informal resources that are available locally for victims of sexual violence. It is the role of the health care worker to help patients identify and choose the most suitable option(s) for their particular requirements.

Health workers may be required to provide a certificate for absenteeism from school or work; these should be non-specific as to the reason for the absence (i.e. not stating that the patient was sexually assaulted).

Information regarding sexual violence, and about support services for victims in particular, should be readily accessible; strategies that might be helpful in this regard include:

- Compile a list of local services and telephone numbers that can be kept in a place that is easily accessible.
- Display posters about sexual violence and where to go for help on the walls of health facilities (having information prominently displayed may make victims feel more comfortable in disclosing and talking about the sexual violence in their lives).
- Place pamphlets and brochures regarding sexual violence in examination rooms and women's toilets so that patients can take them away with them or read the information in private.
- Develop small pocket-size materials with lists of useful telephone numbers and addresses.

7 Child sexual abuse

SUMMARY

■ The dynamics of child sexual abuse differ from those of adult sexual abuse. In particular, children rarely disclose sexual abuse immediately after the event. Moreover, disclosure tends to be a process rather than a single episode and is often initiated following a physical complaint or a change in behaviour.

■ The evaluation of children requires special skills and techniques in history taking, forensic interviewing and examination; the examiner may also need to address specific issues related to consent and reporting of child sexual abuse.

■ Definitive signs of genital trauma are seldom seen in cases of child sexual abuse, as physical force is rarely involved. The accurate interpretation of genital findings in children requires specialist training and wherever possible, experts in this field should be consulted.

■ Decisions about STI testing in children should be made on a case-by-case basis. If testing is warranted, age-appropriate diagnostic tests should be used. Presumptive treatment of children for STIs is not generally recommended.

■ A follow-up consultation is strongly recommended. Although a physical examination may not be necessary, a follow-up consultation provides an opportunity to assess any psychological problems that may have since arisen and to ensure that the child and his/her caregiver are receiving adequate social support and counselling.

7.1 Definition of child sexual abuse

These guidelines adopt the definition of child sexual abuse formulated by the 1999 WHO Consultation on Child Abuse Prevention (*62*) which stated that:

"Child sexual abuse is the involvement of a child in sexual activity that he or she does not fully comprehend, is unable to give informed consent to, or for which the child is not developmentally prepared and cannot give consent, or that violates the laws or social taboos of society. Child sexual abuse is evidenced by this activity between a child and an adult or another child who by age or development is in a relationship of responsibility, trust or power, the activity being intended to gratify or satisfy the needs of the other person. This may include but is not limited to:

— the inducement or coercion of a child to engage in any unlawful sexual activity;
— the exploitative use of a child in prostitution or other unlawful sexual practices;
— the exploitative use of children in pornographic performance and materials".

7.2 Dynamics of child sexual abuse

The sexual abuse of children is a unique phenomenon; the dynamics are often very different to that of adult sexual abuse and therefore abuse of this nature cannot be handled in the same way (*38, 63–65*). Features that characterize child sexual abuse include:

- Physical force/violence is very rarely used; rather the perpetrator tries to manipulate the child's trust and hide the abuse.
- The perpetrator is typically a known and trusted caregiver.
- Child sexual abuse often occurs over many weeks or even years.
- The sexual abuse of children frequently occurs as repeated episodes that become more invasive with time. Perpetrators usually engage the child in a gradual process of sexualizing the relationship over time (i.e. grooming).
- Incest/intrafamilial abuse accounts for about one third of all child sexual abuse cases.

Paedophiles are individuals who prefer sexual contact with children to adults. They are usually skilled at planning and executing strategies to involve themselves with children. There is evidence to suggest that paedophiles may share their information about children (e.g. child pornography). This can occur at an international level, particularly through the use of the Internet.

Adequate training in the dynamics of child sexual abuse is essential for health care professionals to ensure that potential harm to children and their families is avoided by missing a diagnosis or by over-diagnosing.

7.2.1 Risk factors for victimization

A number of factors that make individual children vulnerable to sexual abuse have been identified; although based largely on experience in North American countries, the key determinants are believed to be (63, 66):

— female sex (though in some developing countries male children constitute a large proportion of child victims);
— unaccompanied children;
— children in foster care, adopted children, stepchildren;
— physically or mentally handicapped children;
— history of past abuse;
— poverty;
— war/armed conflict;
— psychological or cognitive vulnerability;
— single parent homes/broken homes;
— social isolation (e.g. lacking an emotional support network);
— parent(s) with mental illness, or alcohol or drug dependency.

7.2.2 Dynamics of disclosure

In the majority of cases, children do not disclose abuse immediately following the event. The reluctance to disclose abuse tends to stem from a fear of the

perpetrator; the perpetrator may have made threats, such as "If you tell anyone I will kill you/ kill your mother" (*66–69*).

The "child sexual abuse accommodation syndrome", proposed by Summit (*69*), has been invoked by a number of researchers to explain why children's disclosures are often delayed following abuse and why disclosure is sometimes problematic or retracted. According to its author, the typical pattern of events is as follows: the child is forced to keep the sexual abuse a secret and initially feels trapped and helpless. These feelings of helplessness and the child's fear that no one will believe the disclosure of abuse lead to accommodative behaviour. If the child does disclose, failure of family and professionals to protect and support the child adequately, augment the child's distress and may lead to retraction of the disclosure (*69*).

Disclosure of sexual abuse in children can be purposeful or accidental (i.e. either intended or not intended by the child or perpetrator). Disclosure is often initiated after an enquiry about a physical complaint, for example, pain when washing the genital area or a bloodstain in the panties. Child sexual abuse disclosures are usually a process rather than a single event.

When children do disclose it is usually to their mother; however, the mother may also be the victim of abusive behaviour by the same perpetrator. Alternatively, disclosure may be to a close friend, peer or teacher.

7.3 Physical and behavioural indicators of child sexual abuse

Physical and behavioural indicators of child sexual abuse are summarized in Table 14. It is important to note that while that the presence of one or more of the findings listed in Table 14 may raise concern, it does not necessarily prove that a child has been sexually abused (*38–40*).

Many health care professionals rely on indicators of this type to assist in the detection of cases of child sexual abuse, especially in children who are non-verbal. However, these indicators must be used with caution, especially in the absence of a disclosure or a diagnostic physical finding.

7.3.1 Sexualized behaviours

Sexualized behaviours include such activities as kissing with one's tongue thrust into the other person's mouth, fondling one's own or another person's breasts or genitals, masturbation, and rythmic pelvic thrusting. Distinguishing inappropriate from developmentally appropriate, i.e. normal, sexual behaviours is often very difficult.

There is a growing body of research on sexualized behaviour in children and its relationship to sexual abuse (*70–73*). Although the majority of sexually abused children do not engage in sexualized behaviour, the presence of inappropriate sexual behaviour may be an indicator of sexual abuse. Generally speaking, sexualized behaviour in children could be defined as problematic when (*71*):

— it occurs at a greater frequency or at a much earlier stage than would be developmentally appropriate (e.g. a 10 year-old boy versus a 2 year-old

Table 14 **Physical and behavioural indicators of child sexual abuse**

PHYSICAL INDICATORS	BEHAVIOURAL INDICATORS
Unexplained genital injury	Regression in behaviour, school performance or attaining developmental milestones
Recurrent vulvovaginitis	Acute traumatic response such as clingy behaviour and irritability in young children
Vaginal or penile discharge	Sleep disturbances
Bedwetting and fecal soiling beyond the usual age	Eating disorders
Anal complaints (e.g. fissures, pain, bleeding)	Problems at school
Pain on urination	Social problems
Urinary tract infection	Depression
STI[a]	Poor self-esteem
Pregnancy[b]	Inappropriate sexualized behaviours[c]
Presence of sperm[b]	

[a] Considered diagnostic if perinatal and iatrogenic transmission can be ruled out.
[b] Diagnostic in a child below the age of consent.
[c] No one behaviour can be considered as evidence of sexual abuse; however, a pattern of behaviours is of concern. Children can display a broad range of sexual behaviours even in the absence of any reason to believe they have been sexually abused.

boy playing with his penis in public, or a 6 year-old girl masturbating repeatedly in school);
— it interferes with the child's development (e.g. a child learning to use sexual behaviours as a way of engaging with other people);
— it is accompanied by the use of coercion, intimidation or force (e.g. one 4 year-old forcing another to engage in mutual fondling of the genitals or an imitation of intercourse);
— it is associated with emotional distress (e.g. eating or sleeping disturbances, aggressive or withdrawn behaviours);
— it reoccurs in secrecy after intervention by caregivers.

7.3.2 Genito-anal findings

In practice, clear physical findings of sexual abuse are seldom seen in children because child sexual abuse rarely involves physical harm. Many studies have found that normal and non-specific findings are common in sexually abused prepubertal girls (*74–77*). A genital examination with normal findings does not, therefore, preclude the possibility of sexual abuse; moreover, in the vast majority of cases the medical examination will neither confirm nor refute an allegation of sexual assault.

Certain sexual actions are unlikely to produce physical injuries (e.g. oro-genital contact) while others (e.g. penetration of the anus, or penetration of the labia but not the hymen) may not necessarily produce injuries. The amount of force used will be the determining factor in such circumstances. Gross trauma

to the genital and/or anal area is easier to diagnose, but healed or subtle signs of trauma are more difficult to interpret.

The position in which the child is examined is critical to the interpretation of the medical observations. If hymenal abnormalities are observed when the child is in the dorsal position (i.e. lying on her back), she should also be examined in the knee-chest position to exclude gravitational effects on these tissues.

Physical genito-anal findings are listed below, grouped according to their strength of evidence for sexual abuse and ranging from normal to definitive:

- *Normal and non-specific vaginal findings* include:
  - — hymenal bumps, ridges and tags;
  - — v-shaped notches located superior and lateral to the hymen, not extending to base of the hymen;
  - — vulvovaginitis;
  - — labial agglutination.
- *Normal and non-specific anal changes* include:
  - — erythema;
  - — fissures;
  - — midline skin tags or folds;
  - — venous congestion;
  - — minor anal dilatation;
  - — lichen sclerosis.
- *Anatomical variations or physical conditions that may be misinterpreted or often mistaken for sexual abuse* include:
  - — lichen sclerosis;
  - — vaginal and/or anal streptococcal infections;
  - — failure of midline fusion;
  - — non-specific vulva ulcerations;
  - — urethral prolapse;
  - — female genital mutilation (see Annex 2);
  - — unintentional trauma (e.g. straddle injuries)
  - — labial fusion (adhesions or agglutination).
- *Findings suggestive of abuse* include:
  - — acute abrasions, lacerations or bruising of the labia, perihymenal tissues, penis, scrotum or perineum;
  - — hymenal notch/cleft extending through more than 50% of the width of the hymenal rim;
  - — scarring or fresh laceration of the posterior fourchette not involving the hymen (but unintentional trauma must be ruled out);
  - — condyloma in children over the age of 2 years;
  - — significant anal dilatation or scarring.
- *Findings that are definitive evidence of abuse or sexual contact* include:
  - — sperm or seminal fluid in, or on, the child's body;
  - — positive culture for *N. gonorrhoeae* or serologic confirmation of acquired syphilis (when perinatal and iatrogenic transmission can be ruled out);
  - — intentional, blunt penetrating injury to the vaginal or anal orifice.

Straddle injuries are the most common type of unintentional injury involving the genitalia and arise when soft tissues of the external genitalia are compressed between an object and the pubic bone resulting in a haematoma of the external structures with visible swelling and some pain in the anterior portion of the external genitalia. Sometimes small linear abrasions are seen on the labia majora and minora, as well as at the posterior fourchette. It is extremely unlikely that a straddle injury will cause damage to the hymenal membrane. Straddle injuries are typically asymmetric or unilateral.

Labial fusion is a reasonably common condition and is caused by minor chronic inflammation. It *may* be caused by sexual abuse, but the finding is *not* diagnostic of abuse. In most cases, no treatment is necessary but if the adhesions are extensive, treatment with estrogen cream is usually successful. Surgical treatment for labial fusion is rarely indicated.

Blunt penetrating trauma to the vaginal orifice produces a characteristic pattern of injury; bruising, lacerations and/or abrasions are typically seen between the 4 and 8 o'clock positions of the hymen. Such injuries often extend to the posterior commissure, fossa navicularis and the posterior hymen. Any interruption in the integrity of the hymenal membrane edge that extends to the posterior vaginal wall is likely to be a healed laceration. More subtle interruptions, which are often described as notches or clefts, may be congenital in origin or could represent a less serious injury.

Female adolescent victims of sexual assault are less likely to show signs of acute trauma or evidence of old injuries than pre-pubescent girls. During puberty, the female genital tissues, especially in the hymenal area, become increasingly thick, moist and elastic due to the presence of estrogen (see Annex 2) and therefore stretch during penetration. Furthermore, tears in the hymen may heal as partial clefts or notches that will be very difficult to distinguish in an estrogenized, redundant or fimbriated hymen. Even minor injuries, such as abrasions in the posterior fourchette, will heal almost immediately.

Signs of major trauma, i.e. lacerations, to the anal office are very rarely observed. Minor injuries may sometimes be seen and typically include anal erythema, abrasions or fissures. In the vast majority of cases, there are no visible signs of trauma to the anal area.

The interpretation of genito-anal findings, in terms of making an overall diagnosis of child sexual abuse, is discussed further in section 7.8.1 (Diagnostic conclusions).

7.4 Health consequences

Both the physical and psychological health problems that are associated with sexual abuse in children have been well documented in the scientific literature (*38, 66, 78, 79*). The physical health consequences include:

— gastrointestinal disorders (e.g. irritable bowel syndrome, non-ulcer dyspepsia, chronic abdominal pain);
— gynaecological disorders (e.g. chronic pelvic pain, dysmenorrhea, menstrual irregularities);
— somatization (attributed to a preoccupation with bodily processes).

The following psychological and behavioural symptoms have been reported in child victims of sexual abuse:

— depressive symptoms;
— anxiety;
— low self-esteem;
— symptoms associated with PTSD such as re-experiencing, avoidance/numbing, hyperarousal;
— increased or inappropriate sexual behaviour;
— loss of social competence;
— cognitive impairment;
— body image concerns;
— substance abuse.

7.5 Assessment and examination of children

7.5.1 General considerations

Whereas adult victims of sexual violence often present as a medical emergency, children are brought to the attention of the health care professional through a variety of routes and circumstances (*40*):

- A child sexual abuse allegation has been reported and there is a request for an examination by the child protection authorities and/or the police.
- The child is brought by a family member or referred by a health care professional because an allegation has been made but not reported to authorities.
- Behavioural or physical indicators have been identified (e.g. by a caregiver, health care professional, teacher) and a further evaluation has been requested.

The timing and extent of the physical examination depends on the nature of the presenting complaint, the availability of resources in the community, the need for forensic evidence, and the expertise and style of the health professional caring for the child (*80*). Decisions about the timing of the physical examination should be based on the length of time that has elapsed since the child last had contact with the alleged perpetrator. As a guiding rule:

- If last contact was more than 72 hours previously and the child has no medical symptoms, an examination is needed as soon as possible but not urgently.
- If last contact was within 72 hours and the child is complaining of symptoms (i.e. pain, bleeding, discharge), the child should be seen immediately.

There are two distinct aspects to the gathering of information from the child (or caregivers) in cases of alleged child sexual abuse: (a) the medical history and (b) the interview. The function of the **medical or health history** is to find out why the child is being brought for health care at the present time and to obtain information about the child's physical or emotional symptoms. It also provides the basis for developing a medical diagnostic impression before a physical examination is conducted. The medical history may involve information about the alleged abuse, but only in so far as it relates to health problems or symptoms that have resulted there from, such as bleeding at the time of the

assault, or constipation or insomnia since that time. The medical history should be taken by a health professional.

The **interview** stage of the assessment goes beyond the medical history in that it seeks to obtain forensic information directly related to the alleged sexual abuse, for example, details of the assault, including the time and place, frequency, description of clothing worn and so on. Forensic interviewing of children is a specialized skill and, if possible, should be conducted by a trained professional (e.g. a child protection worker, a police officer with interviewing skills). In some communities, however, the health worker attending the child will be the most experienced interviewer available. Section 7.5.3 below provides guidance on forensic interviewing for health workers called upon to provide this service.

Regardless of who is responsible for the medical history and the forensic interview, the two aspects of the child's evaluation should be conducted in a coordinated manner so that the child is not further traumatized by unnecessary repetition of questioning and information is not lost or distorted.

7.5.2 Consent and confidentiality issues

In most communities, consent must be obtained from the child and/or caregiver to conduct a physical examination and to collect specimens for forensic evidence. In some cases, however, consent can be problematic, especially when the best interests of the child conflict with the child and/or caregiver's immediate concerns about giving consent. In cases where a caregiver refuses to give consent for the medical evaluation of a child, even after the need for the examination has been explained, the child protection authorities may need to be called in to waive the caregiver's custodial rights over the child for the purpose of facilitating the medical evaluation. In settings where consent is obtained upon arrival at the facility (e.g. the Emergency Department of a hospital), the examining health worker should ensure that the process of consent and all the procedures of the medical evaluation have been fully explained to the child and caregiver (see also section 4.2.3 Obtaining consent).

Codes of practice require all professionals to consider carefully their legal and ethical duties as they apply to patient confidentiality. The child and his/her parents/guardian need to understand that health care professionals may have a legal obligation to report the case and to disclose information received during the course of the consultation to the authorities even in the absence of consent (see section 7.8.2 Reporting abuse).

7.5.3 Interviewing the child

Community protocols usually dictate how, and by whom, the interview of the child is conducted. Some jurisdictions require the interview to be conducted by a trained professional, especially if there are legal implications, to ensure that information relevant to the case is obtained according to the proper procedures, and to this end have dedicated forensic interviewing teams who

can be called upon to conduct the interview of the child. In other settings, the health care worker attending the child will be responsible for conducting the interview as well as taking the medical history. In such circumstances, in addition to obtaining an account of the allegations, the interview stage of the assessment affords an opportunity for the health practitioner to develop rapport and trust with the child.

Interviewing a child for forensic purposes is an important component of the assessment of alleged cases of child sexual abuse; information so obtained will become part of the medico-legal process.

The forensic interviewing of children demands knowledge of a range of topics such as the process of disclosure and child-centred developmentally sensitive interviewing methods, including language and concept formation, memory and suggestibility (*81*). Health practitioners involved in the management of this process must also have knowledge of the dynamics and the consequences of child sexual abuse, an ability to establish rapport with children and adolescents, and a capacity to maintain objectivity in the assessment process (*82*).

Approaches and strategies that may be useful for interviewing children are outlined in Box 8. For further guidance on forensic interviewing of children, please consult Poole and Lamb (1998) details of which are listed in the bibliography.

BOX 8

Interviewing child victims of sexual abuse

Health workers responsible for investigative interviewing of children in cases of alleged sexual abuse may find it useful to bear in mind the following:

- All children should be approached with extreme sensitivity and their vulnerability recognized and understood.
- Try to establish a neutral environment and rapport with the child before beginning the interview.
- Try to establish the child's developmental level in order to understand any limitations as well as appropriate interactions. It is important to realize that young children have little or no concept of numbers or time, and that they may use terminology differently to adults making interpretation of questions and answers a sensitive matter.
- Always identify yourself as a helping person.
- Ask the child if he/she knows why they have come to see you.
- Establish ground rules for the interview, including permission for the child to say he/she doesn't know, permission to correct the interviewer, and the difference between truth and lies.
- Ask the child to describe what happened, or is happening, to them in their own words.
- Always begin with open-ended questions. Avoid the use of leading questions and use direct questioning only when open-ended questioning/free narrative has been exhausted. Structured interviewing protocols can reduce interviewer bias and preserve objectivity.
- When planning investigative strategies, consider other children (boys as well as girls) that may have had contact with the alleged perpetrator. For example, there may be an indication to examine the child's siblings. Also consider interviewing the caretaker of the child, without the child present.

7.5.4 Taking a history

The purpose of history-taking is to obtain routine, background information relating to the medical history of the child, as well as information about any medical symptoms that have arisen, or may result from, the abuse. As explained earlier, history-taking is distinct from interviewing the child about allegations of sexual abuse.

Ideally, a history should be obtained from a caregiver, or someone who is acquainted with the child, rather than from the child directly; however, this may not always be possible. Nonetheless, it is important to gather as much medical information as possible. Older children, especially adolescents are frequently shy or embarrassed when asked to talk about matters of a sexual nature. It is a good idea to make a point of asking whether they want an adult or parent present or not; adolescents tend to talk more freely when alone.

History-taking from children, particularly the very young, requires specific skills. As in the case of the interview, questions need to be adjusted to the age or comprehension of the child. Ideally, health workers performing this role should have specialized training and proven expertise in this field.

When gathering history directly from the child it may be worth starting with a number of general, non-threatening questions, for example, "What grade are you in at school?" and "How many brothers and sisters do you have?", before moving on to cover the potentially more distressing issues. Be non-leading and non-suggestive and document all information as close to verbatim as possible; include observations of the interactions between, and emotional states of, the child and his/her family.

The following pieces of information are essential to the medical history; suggested phrasing of the corresponding questions, if directed to children, is given alongside in italicized typeface:

- Last occurrence of alleged abuse (younger children may be unable to answer this precisely). *When do you say this happened?*
- First time the alleged abuse occurred. *When is the first time you remember this happening?*
- Threats that were made.
- Nature of the assault, i.e. anal, vaginal and/or oral penetration. *What area of your body did you say was touched or hurt?* (The child may not know the site of penetration but may be able to indicate by pointing. This is an indication to examine both genital and anal regions in all cases.)
- Whether or not the child noticed any injuries or complained of pain.
- Vaginal or anal pain, bleeding and/or discharge following the event. *Do you have any pain in your bottom or genital area? Is there any blood in your panties or in the toilet?* (Use whatever term is culturally acceptable or commonly used for these parts of the anatomy.)
- Any difficulty or pain with voiding or defecating. *Does it hurt when you go to the bathroom?*
- Any urinary or faecal incontinence.

- First menstrual period and date of last menstrual period (girls only).
- Details of prior sexual activity (explain why you need to ask about this). *Have you had sex with someone because you wanted to?*
- History of washing/bathing since (a recent) assault.

7.5.5 The physical examination

The examination of prepubescent children should be performed, or the findings interpreted, by practitioners who have specialist knowledge and skills in the field of child sexual abuse (*40, 75, 80, 83, 84*).

Before proceeding, ensure that consent has been obtained from the child and the caregiver, or the necessary authorities as prescribed by local consent guidelines. If the child refuses the examination, it would be appropriate to explore the reasons for the refusal. It may be possible to address some of the child's fears and anxieties (e.g. a fear of needles) or potential sources of unease (e.g. the sex of the examining health worker). Consider examining very small children while on their mother's (or carer's) lap or lying with her on a couch.

If the child still refuses, the examination may need to be deferred or even abandoned. Never force the examination, especially if there are no reported symptoms or injuries, because findings will be minimal and this coercion may represent yet another assault to the child. Consider sedation or a general anaesthetic *only* if the child refuses the examination and conditions requiring medical attention, such as bleeding or a foreign body, are suspected. If it is known that the abuse was drug-assisted, the child needs to be told that he/she will be given a sedative or be put to sleep, that this may feel similar to what he/she has experienced in the past. Reassure the child about what will take place during the time under sedation and that he/she will be informed of the findings.

Health workers should find the examination of children greatly eased by following a few simple general rules of conduct, namely:

- Always ensure patient privacy. Be sensitive to the child's feelings of vulnerability and embarrassment and stop the examination if the child indicates discomfort or withdraws permission to continue.
- Always prepare the child by explaining the examination and showing equipment; this has been shown to diminish fears and anxiety. Encourage the child to ask questions about the examination.
- If the child is old enough, and it is deemed appropriate, ask whom they would like in the room for support during the examination. Some older children may choose a trusted adult to be present.

The physical examination of children, which should consist of a head-to-toe review plus a detailed inspection of the genito-anal area, can be conducted according to the procedures outlined for adults in section 4.4 (The physical examination). When performing the head-to-toe examination of children, however, the following points are particularly noteworthy:

- Record the height and weight of the child (neglect may co-exist with sexual abuse).

- Note any bruises, burns, scars or rashes on the skin. Carefully describe the size, location, pattern and colour of any such injuries.
- In the mouth/pharynx, note petechiae of the palate or posterior pharynx, and look for any tears to the frenulum.
- Check for any signs that force and/or restraints were used, particularly around the neck and in the extremities.
- Record the child's sexual development (Tanner) stage (see Annex 2) and check the breasts for signs of injury.

In order to conduct the genital examination in girls, it is helpful to ask the child to lie supine in the frog-leg position, and/or, if comfortable, in the knee-chest position. A good light source is essential; an auroscope provides both a light source and magnification. A colposcope may also be used; however, although it is useful for documenting some types of injury and/or anatomical abnormalities, it is very expensive and generally does not reveal any additional medical findings.

In girls, the external genital structures to be examined are the:

— mons pubis;
— labia majora and labia minora;
— clitoris;
— urethra;
— vaginal vestibule;
— hymen;
— fossa navicularis;
— posterior fourchette.

In most cases, the hymen and surrounding structures will be easily identified. If not, the following technique may be useful for assisting in the visualizing of the hymen and surrounding structures to check for signs of injury:

— separate the labia with gentle lateral movement or with anterior traction (i.e. by pulling labia slightly towards examiner);
— after forewarning the child, gently drop a small amount of warm water on the structures; this may cause the structures to "unstick" and become more visible;
— ask the child to push or bear down.

Describe the location of any injuries using the face of a superimposed clock, paying close attention to the area between 4 and 8 o'clock, the most probable location of a penetrating injury.

Most examinations in pre-pubertal children are non-invasive and should not be painful. Speculums or anoscopes and digital or bimanual examinations do not need to be used in child sexual abuse examinations unless medically indicated. If a speculum examination is needed, sedation or anaesthesia should be strongly considered.

In boys, the genital examination should include the following structures and tissues, checking for signs of injury (i.e. bruising, laceration, bleeding, discharge):

— the glans and frenulum;
— shaft;
— scrotum;
— testicles and epididymis;
— inguinal region;
— perineum.

In order to examine the anal area (in boys and girls), place the child in the lateral position and apply gentle traction to part the buttock cheeks. During the course of an anal examination the following tissues and structures should be inspected, again looking specifically for signs of injury (e.g. bruising, fissures, lacerations, bleeding, discharge):

— anal verge tissues;
— ano-rectal canal;
— perianal region;
— gluteal cleft.

Consider a digital rectal examination only if medically indicated, as the invasive examination may mimic the abuse.

7.6 Collecting medical and forensic specimens

The comments made about the collection of medical and forensic specimens in adults apply equally to children and reference should be made to the appropriate section of these guidelines for information on these matters (see sections 4.6 Diagnostic tests, specimen collection and forensic issues and 5.2 Forensic specimen collection techniques).

7.7 Treatment

7.7.1 Children and STIs

The epidemiology, diagnosis and transmission modes of STIs in children differ from those in adults; age-appropriate diagnostic tests are thus required and treatment prescribed accordingly (*80*, *83*, *85–87*).

There are a number of ways in which children and adolescents can become infected by sexually transmitted organisms, including:

— in utero (vertical) transmission (e.g. HIV, syphilis);
— perinatal acquisition via cervical secretions (e.g. gonorrhoea, chlamydia, human papilloma virus (HPV), herpes simplex virus (HSV));
— direct contact with infected secretions as a result of sexual abuse, consensual sexual contact (adolescents), non-sexual contact or fomite transmission (extremely rare).

STI testing

Decisions about whether or not to screen a child who has been sexually abused for STIs are best made on a case-by-case basis. Testing for STIs is strongly indicated in the following situations (*59*, *86*):

— the child presents with STI signs or symptoms (e.g. vaginal discharge, genital ulcers);
— the alleged offender is known to have a STI or is at high risk of contracting STIs;
— high prevalence of STIs in community;
— siblings or other household members have STIs, or signs or symptoms of STIs;
— the patient or parent requests testing.

Additional information relating to the screening for selected STIs is provided in Table 15.

When evaluating a child and the need for STI screening, it is important to bear in mind that if the sexual abuse occurred recently, STI cultures are likely to be negative, unless the child had a pre-existing STI. A follow-up visit 1 week after the last sexual exposure may be necessary in order to repeat the physical examination and to collect appropriate specimens for STI testing.

If STI testing is deemed appropriate, the following should be performed as part of the initial and follow-up examinations (*59*):

- Cultures for *N. gonorrhoeae* and *C. trachomatis*, using only standard culture systems.
- Wet-mount microscopic examination of vaginal swab specimen for *T. vaginalis*.
- Dark-field microscopy or direct fluorescent antibody testing of specimen(s) collected from vesicles or ulcers for *T. pallidum*; where available, tissue culture for HSV.
- Collection of a serum sample for analysis in the event of positive follow-up tests, or, if the last incident of sexual abuse occurred more than 12 weeks before the initial examination, immediate analysis for antibody to sexually transmitted agents.

In pre-pubertal children, swabs for STIs are only indicated where symptoms (e.g. vaginal discharge, pain) are present. Genital swabs in pre-pubescent children should be taken from the vaginal orifice or canal; cervical specimens are only required in adolescents (i.e. those at Tanner stage II of puberty or later), as adolescents may have asymptomatic infections.

Treatment of STIs

Presumptive treatment of children who have been sexually abused is not generally recommended for the following reasons (*59*):

a) the estimated risk of contracting STIs through sexual abuse is low;
b) pre-pubertal girls appear to be at lower risk of ascending infection than adolescent and adult women.

Children and adolescents who test positive for a sexually transmitted infection should be treated according to Table 16. Pregnant adolescents should be treated according to Table 12 (see section 6.3 Sexually transmitted infections).

Table 15 **Children and sexually transmitted infections: diagnostic information**

STI	NOTES AND COMMENTS
Chlamydia	Chlamydia can be acquired perinatally, but if diagnosed in the second year of life, it is most likely to be sexually acquired. Nucleic acid amplification (NAA) examination by two separate test methods targeting different parts of the genome should be employed and repeated as necessary according to jurisdictional requirements. If this is not possible, enzyme immuno-assays tests should be used.
Gonorrhoea	Gonorrhoea infections outside the immediate neonatal period can be attributed to sexual abuse. Cultures for gonorrhoea are rarely positive in pre-pubertal children without signs or symptoms of vaginitis. Culture via direct inoculation, under optimal conditions, is the gold standard for diagnosis.
Hepatitis B	Testing should be done if perpetrator has multiple sex partners, is known to be an IV drug user, or is a man known to engage in sex with men. Serologic testing should be completed if the child has not received the HBV vaccine.
HIV	There are some documented cases of HIV and AIDS transmission via sexual abuse in children. HIV screening for all sexual abuse victims should be offered in high prevalence areas. Screening should be done at 3, 6 and 12 months following the abuse.
HPV	Perinatal exposure is common. Many cases of genital warts have been shown to be sexually acquired. Non-sexual transmission has been postulated. Many unanswered questions regarding HPV epidemiology in children remain and therefore, although sexual abuse should be considered as possible etiology, caution is advised during investigation. Detection is by cellular morphology or direct detection of HPV DNA.
HSV, type I and II	Type I is a common universal infection transmitted by close bodily contact such as kissing. It causes sores on the mouth and lips. Type I rarely causes genital infections. Type II is transmitted predominantly through sexual contact with an infected individual shedding the virus. Vertical transmission occurs if delivery takes place concurrently with the presence of sores in the mother's genital tract. Standard laboratory diagnosis is by inoculation of cells in tissue culture with infected secretions.Clinical diagnosis alone is not sufficient.
Syphilis	Considered to be proof of sexual abuse unless shown to be acquired congenitally. Diagnosis is by dark-field microscopy from a primary chancre or secondary lesion, or by serological tests on serum.
Trichomoniasis	Found rarely in pre-pubertal girls. In adults and adolescents it is almost always sexually transmitted. Diagnosed by microscopy and culture.

HIV = human immunodeficiency virus; HPV = human papilloma virus; HSV = herpes simplex virus.

Table 16 **WHO recommended STI treatment regimens for children and adolescents**[a]

STI	MEDICATION	ADMINISTRATION ROUTE AND DOSAGE
Gonorrhoea	Ceftriaxone	125 mg IM in a single dose
	or	
	Cefixime	400 mg orally in a single dose or for children under 12 years, 8 mg/kg body weight orally in a single dose
Chlamydia	Doxycycline[b]	100 mg orally twice a day for 7 days if body weight ≥ 45 kg, or 2.2 mg/kg body weight orally twice a day for 7 days if body weight < 45 kg
	or	
	Azithromycin	1 g orally in a single dose
Trichomoniasis and bacterial vaginosis	Metronidazole	2 g orally in a single dose or 1 g orally every 12 hours for 1 day
Syphilis	Benzathine penicillin G[c]	2.4 million IU IM in a single dose
	or	
	Tetracycline[b,d]	500 mg orally twice a day for 14 days

IM = intramuscularly; IU = International Units.

[a] The following regimens are intended to be guidelines only and are not inclusive of all available treatment regimens for STIs. Appropriate and accepted local regimens and protocols should be followed.
[b] Contraindicated during pregnancy (Pregnant adolescents should be treated according to the regimens set out in Table 10.)
[c] If not allergic to penicillin.
[d] If allergic to penicillin.

Source: adapted from reference (*88*).

7.7.2 HIV and post-exposure prophylaxis

As is the case with adults, data on the efficacy and safety of post-exposure prophylaxis for HIV in children are inconclusive. However, as a guiding rule, if the child presents within 72 hours of an assault and a) the perpetrator(s) are at high risk for HIV infection, and b) compliance with treatment regimens is likely to be high, HIV prophylaxis should be considered. If available, a professional specializing in HIV infection in children should be consulted prior to prescribing PEP.

7.7.3 Pregnancy testing and management

In terms of pregnancy prevention and management, the recommendations provided for adults apply equally to adolescent females (see section 6.2 Pregnancy prevention and management).

7.8 Follow-up care

7.8.1 Diagnostic conclusions

It is possible to draw some conclusions regarding the likelihood of sexual abuse from observations made during the course of a patient evaluation; key areas of interest in this regard are (*89*, *90*):

— history;
— behavioural or physical indicators (if present);

— symptoms;
— acute injuries;
— STIs;
— forensic evidence.

This process is greatly assisted by the use of a classification system for the range of physical, laboratory and historical information that is obtained in cases of alleged child sexual abuse. Table 17 illustrates the use of one such a system, developed by Adams (*90*), in which both physical examination findings and other data (i.e. statements from the child, observed behavioural changes and laboratory findings) are used collectively in order to make an overall assessment of the likelihood or otherwise of sexual abuse.

In some cases, physical findings alone will confirm abuse; for example, penetrating trauma to the hymen without an explanation. In others, forensic findings, such as sperm on a child's body will be sufficient to make the diagnosis. Alternatively, in the absence of physical findings (i.e. negative or non-specific findings) the diagnosis of abuse can be made on the basis of the child's statement or that of an eye-witness to the abuse.

Table 17 **Classification of physical findings and other data; a diagnostic tool in child sexual abuse cases**

DIAGNOSTIC CONCLUSION	EVIDENCE
Definite abuse or sexual contact	Finding sperm or seminal fluid in, or on, a child's body.
	Pregnancy.
	Positive cultures for *N. gonorrhoeae*.
	Evidence of syphilis or HIV infection (outside perinatal transmission and or transmission via blood products or contaminated needles).
	Clear evidence of blunt force or penetrating trauma to the hymenal area (without history).
	Clear videotape or photograph of abuse or eye-witness of abuse.
Probable abuse	Positive culture for *C. trachomatis*.
	Positive culture for HSV Type II.
	Trichomoniasis infection (absence of perinatal transmission).
	Child has given spontaneous, clear, consistent and detailed description of abuse, with or without abnormal or physical findings.
Possible abuse	Normal or non-specific physical findings in combination with significant behavioural changes, especially sexualized behaviours.
	HSV Type I.
	Condyloma accuminata with otherwise normal examination.
	Child made a statement but statement is not sufficiently detailed.
No indication of abuse	No history, no behavioural changes, no witnessed abuse. Normal examination.
	Non-specific findings with the same as above.
	Physical findings of injury consistent with history of unintentional injury that is clear and believable.

Source: Reference (*90*)

7.8.2 Reporting abuse

Every community has its own set of laws governing how, and to whom, a report regarding suspicion of child sexual abuse should be made. Most communities also have a mandatory reporting structure for professionals working with children and in many jurisdictions a failure to report child sexual abuse would constitute a crime. Typically the reporting law leaves the final determination as to whether or not abuse occurred to the investigators, not the reporters (*91*).

It is important that health workers are aware of the laws governing the reporting of child sexual abuse as it applies in their own area. Not every community will have such legislation, and under these circumstances, the health professional will need to decide what will be the most effective course of action to take in order to try to protect the child from further abuse.

7.8.3 Follow-up treatment

Because physical findings are rare in cases of child sexual abuse, a follow-up examination may not be necessary especially if there were no findings in the initial evaluation. If, however, findings were present at the time of the initial examination, a follow-up examination should be scheduled. The timing of follow-up examinations is dependent on the nature of the injuries and the conditions being treated and health care workers are advised to use their own judgement when determining how soon after the initial visit a follow-up examination should be done, allowing for the fact that injuries in the genital area heal very quickly in children.

The following conditions warrant special mention:

- If the initial exposure to sexual abuse was recent at the time of the first examination, a follow-up visit at 1 week may be required to conduct STI testing.
- Blood tests for HIV, hepatitis B and syphilis, whether done at the initial visit or not, may require repeating at 12 weeks, and again at 6 months.

In some cases, a follow-up examination can be viewed more as a psychosocial follow-up measure to ensure that the appropriate counselling referrals have been made and that there is adequate support for the child and family. Some centres use follow-up appointments as an opportunity to provide prevention and safety teaching to children and families.

7.8.4 Counselling and social support

While the initial medical assessment may not reveal any immediate psychological problems, it is important that a further assessment be conducted to ensure that any issues that may arise are addressed and dealt with appropriately.

Counselling services should be provided in a coordinated fashion, and considered in conjunction with similar services provided by schools and other community groups. Thought must also be given to providing support and/or counselling to those caring for the child. This may be required even if the child itself is not assessed as needing therapy. In general:

- Abuse-specific cognitive behavioural treatment is generally the most effective form of therapy for post-traumatic stress reactions.
- Group therapy for children is not necessarily more effective than individual therapy.
- Many sexually abused children may have co-morbid conditions that require specific treatment.
- Younger children may not understand the implication of abuse and therefore may appear to be less distressed than older children.
- A believing and supportive mother or non-offending caretaker can be a strong determinant for a good prognosis.

8 Documentation and reporting

SUMMARY

- All consultations with patients must be documented in the form of hand-written notes, diagrams or body charts and, if appropriate, photography. Use of standard examination forms can greatly assist the process of documentation, and ensure that important details are not omitted.
- All aspects of the consultation should be documented, including consents given; medical history; account of the abuse; outcome of the physical examination; samples taken; tests and their results; treatments and medications prescribed; and schedule of follow-up care and referrals.
- In the interests of accuracy, notes should be made during the course of the consultation, rather than after.
- Patient records are strictly confidential and should be stored securely.
- Health workers may be required to comment on their findings in a written report and/or give evidence in court. If so required, health workers must ensure that their evidence is impartial and represents a balanced interpretation of their findings.
- If not trained in medico-legal matters, health workers should confine their service to health care provision and documentation of findings, and leave the interpretation of physical and other observations to a suitably qualified expert.

8.1 Documentation

Health workers have a professional obligation to record the details of any consultation with a patient. The notes should reflect what was said (by the patient, in her own words) and what was seen and done (by the health worker).

In cases of alleged sexual abuse, the taking of accurate and complete notes during the course of an examination is critical for the following reasons:

- As medical records can be used in court as evidence, documenting the consequences of sexual violence may help the court with its decision-making as well as provide information about past and present sexual violence.
- Documenting that a patient has been a victim of sexual violence will alert other health care providers who later attend the patient to this fact and so assist them in providing appropriate and sympathetic follow-up care.
- Documentation can provide administrators and policy-makers with an estimate of the incidence and prevalence of sexual violence that can be used to guide decisions about allocating resources (see also section 8.1.3 Epidemiological surveys).

8.1.1 How and what should be documented?

Mechanisms for documenting consultations include hand-written notes, diagrams, body charts and photography. Photography should be used to supplement, not replace, the other methods of recording findings and is discussed in more detail below (see section 8.2 Photography).

Some states or local authorities provide standard forms or proformas for recording the details of medical consultations. A sample proforma has been prepared by WHO specifically for recording consultations with victims of sexual violence and is attached to these guidelines as Annex 1. This proforma can be copied and used as it stands, or can be adapted to suit local needs and circumstances.

In sexual abuse cases, documentation should include the following:

— demographic information (i.e. name, age, sex);
— consents obtained;
— history (i.e. general medical and gynaecological history);
— an account of the assault;
— results of the physical examination;
— tests and their results;
— treatment plan;
— medications given or prescribed;
— patient education;
— referrals given.

Comprehensive and accurate documentation can be assured by following the set of instructions given in Box 9. In the interests of patient safety, health workers are advised not to make a note of the names, addresses or telephone numbers of any shelter or safe houses given to the patient. It is usually sufficient to make an entry in the records to the effect that, "Patient was given referrals for emergency shelter and counselling".

BOX 9

Documenting cases of sexual abuse: a check-list for health workers

The following check-list is intended to assist health workers develop their documentation skills:

- Document all pertinent information accurately and legibly.
- Notes and diagrams should be created during the consultation; this is likely to be far more accurate than if created from memory.
- Notes should not be altered unless this is clearly identified as a *later* addition or alteration. Deletions should be scored through once and signed, and not erased completely.
- Ensure that the notes are accurate; deficiencies may cast doubts over the quality of the assessment.
- Record verbatim any statements made by the victim regarding the assault. This is preferable to writing down your own interpretation of the statements made.
- Record the extent of the physical examination conducted and all "normal" or relevant negative findings.

8.1.2 Storage and access to records

Patient records and information are strictly confidential. All health care providers have a professional, legal and ethical duty to maintain and respect patient confidentiality and autonomy. Records and information should not be disclosed to anyone except those directly involved in the case or as required by local, state and national statutes (*20*).

All patient records (and any specimens) should be stored in a safe place. Biological evidence usually needs to be refrigerated or frozen; check with your laboratory regarding the specific storage requirements for biological specimens.

8.1.3 Epidemiological surveys

Medical records of cases of sexual violence are a rich source of data for surveillance purposes. Information can be used to determine (*12*):

— the patterns of sexual violence;
— who is most at risk for becoming a victim of sexual violence;
— locations or areas where there is a high incidence of sexual violence;
— the time of day when most of the offences take place;
— medical and staffing resources required to improve the care of, and services to, victims of sexual violence.

Such information will give an indication of how serious the problem of sexual violence is, pinpoint where prevention measures are most urgently needed and will allow service providers to monitor the effectiveness of health services available to victims of sexual violence. This information, however, must be interpreted with caution as it is known that sexual abuse is greatly under-reported. Women seeking help from health services may represent only the tip of the iceberg.

The information required to serve the above-mentioned functions is retrievable from the sample WHO Sexual Violence Examination Record (see Annex 1). It is critical that data used for surveillance purposes should have all patient identifiers removed; this ensures patient anonymity.

8.2 Photography

If using photography to document findings, the following points are worth bearing in mind:

- *Consider the patient*. Many subjects will be uncomfortable, unhappy, tired or embarrassed. Communicate the role of photography and obtain informed consent for the procedure.
- *Identification*. Each photograph must identify the subject, the date and the time that the photograph was taken. The photographs should be bound with a note stating how many photographs make up the set. Ideally, a new roll of film should be used for each subject; alternatively, there should be a clear indication of where a new series commences.
- *Scales*. A photograph of the **colour chart** should commence the sequence of photographs. **Scales** are vital to demonstrate the size of the injury. They

may be placed in the horizontal or vertical plane. Photographs should be taken with and without a scale.

- *Orientation*. The first photograph should be a facial shot for identification purposes; this may not be required if the photographs have been adequately identified (see above). Subsequent shots should include an overall shot of the region of interest followed by close-up shots of the specific injury or injuries.
- *Chain of custody*. This should be logged as for other forensic evidence (see section 5 Forensic specimens).
- *Security*. Photographs form part of a patient record and as such should be accorded the same degree of confidentiality. Legitimate requests for photographs include those from investigators and the court. If, however, a copy is made for teaching purposes, the consent of the subject or his/her parents/guardian should be obtained.
- *Sensitivity*. The taking of photographs (of any region of the body) is considered to be inappropriate behaviour in some cultures and specific consent for photography (and the release of photographs) may be required. Consent to photography can only be obtained once the patient has been fully informed about how, and why, the photographs will be taken. The briefing should also explain how this material may be used (e.g. released to police or courts and cited as evidence).

8.3 Providing written evidence and court attendance

It is beyond the scope of this document to deal with the specific obligations of health care practitioners in meeting the needs of the justice system. Generally speaking, however, the health worker would be expected to (*92*):

— be readily available;
— be familiar with the basic principles and practice of the legal system and obligations of those within the system, especially their own and those of the police, as it applies to their jurisdiction;
— make sound clinical observations (these will form the basis of reasonable assessment and measured expert opinion);
— reliably collect samples from victims of crime (the proper analysis of forensic samples will provide results which may be used as evidence in an investigation and prosecution).

Health workers may be called upon to give evidence, either in the form of a written report or as an expert witness in a court of law. When charged with this task, health care practitioners should be aware of the following pitfalls and potential problem areas:

— providing opinions which are at the edge of, or beyond, the expertise of the witness;
— providing opinions that are based on false assumptions or incomplete facts;
— providing opinions based on incomplete or inadequate scientific or medical analysis;

— providing opinions which are biased, consciously or unconsciously, in favour of one side or the other in proceedings.

Guidance on writing reports and giving evidence is provided in Table 18, in the form of a set of simple rules. Above all, health workers should aim to convey the truth of what they saw and concluded, be it in a written report or to the court, in an impartial way, and ensure that a balanced interpretation of the findings is given.

Health care workers providing medico-legal services to victims of sexual violence, in particular the more experienced practitioners, should be given training in such matters (see Annex 3). If not specifically trained in medico-legal aspects of service provision, health workers are advised to confine their service delivery to the health component and defer from offering an opinion. Under such circumstances, the court can seek the assistance of an expert to provide the necessary interpretation of the observations.

Table 18 **Providing evidence in sexual violence cases: guiding principles for health workers**

WRITING REPORTS	GIVING EVIDENCE
1. Explain what you were told and observed.	1. Be prepared.
2. Use precise terminology.	2. Listen carefully.
3. Maintain objectivity.	3. Speak clearly.
4. Stay within your field of expertise.	4. Use simple and precise language.
5. Distinguish findings and opinions.	5. Stay within your field of expertise.
6. Detail all specimens collected.	6. Separate facts and opinion.
7. Only say or write what you would be prepared to repeat under oath in court.	7. Remain impartial.

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Child sexual abuse

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ANNEX 1

Sexual violence examination record

SEXUAL VIOLENCE EXAMINATION RECORD	NAME: DATE OF EXAMINATION:

World Health Organization
SEXUAL VIOLENCE EXAMINATION RECORD[1]

PATIENT DETAILS

FAMILY NAME		
GIVEN NAME(S)		
DATE OF BIRTH	AGE (in years)	SEX
ADDRESS (or other identification)		

EXAMINATION

DATE	TIME
PLACE	
HEALTH WORKER'S NAME (or identification details)	
OTHER PERSONS PRESENT DURING CONSULTATION (and relationship to patient)	

REPORT

DATE SENT	SENT TO

[1] This record should be used in conjunction with the WHO *Guidelines for Medico-legal Care for Victims of Sexual Violence*, which contain much of the background information about the conduct of the examination.

Notes on completing the Consent Form

Consent for an examination is a central issue in medico-legal practice. Consent is often called "Informed consent" because it is expected that the patient (or his/her parent(s) or guardian) will be "informed" of all the relevant issues to help the patient make a decision about what is best for him/her at the time.

The patient needs to understand:

- What the history-taking process will involve.
- The type of questions that will be asked and the reason those questions will be asked.

> For example:
>
> *"I will need to ask you for details of the assault. I will need to know where your attacker's body touched yours so I will know where to look on your body for signs of injury or for traces of evidence from your attacker."*

- That the examination will be done in circumstances of privacy and dignity. The patient will lie on an examination couch and an extensive examination will be required.
- That a genito-anal examination will require the patient to lie in a position where this area can be adequately seen with the correct lighting.

> For example:
>
> *"I will ask you to lie on your back on the examination couch with a sheet draped over your knees. I will ask you to draw your knees up, keep your ankles together and flop your legs apart so that I can look carefully at your pelvic area with the help of this light."*

- That the genito-anal area will be touched by the examiner's gloved hands to allow internal structures to be better seen. A device designed for looking inside the vagina or the female birth canal, called a speculum, may be used. A device for looking inside the anus, an anoscope, may be used.
- That specimen collection involves touching the body and body openings with swabs and collecting body materials such as head hair, pubic hair, genital secretions, blood, urine and saliva. Clothing may be collected. Not all of the results of the forensic analysis may be made available to the patient.

It is crucial to inform the patient that the information told to the health worker and found on examination will be conveyed to investigators for use in the pursuit of criminal justice if the patient decides to pursue legal action or in jurisdictions with mandatory reporting requirements. This means that anything told to the health worker may not be kept private between patient and health worker, but may be discussed in an open court at some time in the future.

The patient should also be given an explanation as to how photographs may be used. Photography is useful for court purposes and should NOT include images of genital areas.

All of the above information should be provided in a language that is readily understood by the patient or his/her parent/guardian.

CONSENT FOR A MEDICAL CONSULTATION[1]

. . . . . (*insert health worker's name*) has explained to me the procedures of examination, evidence collection and release of findings to police and/or the courts.

I . . . . . (*insert patient's name*) agree to the following:

(Mark each n that applies)

☐ Examination, including examination of the genitalia and anus.

☐ Collection of specimens for medical investigations to diagnose any medical problems.

☐ Collection of specimens for criminal investigation.

☐ Photography.

☐ Providing a verbal and or written report to police or other investigators.

☐ Treatment of any identified medical conditions.

Patient's (or parent's or guardian's) signature or mark . . . . . .

Witness' signature . . . . . .

Date . . . . . .

[1] In cases involving children, a parent or guardian can sign on behalf of the child. Similarly, if an adult is not competent to provide consent, the next of kin or guardian should sign on his/her behalf.

MEDICAL HISTORY

1. RELEVANT MEDICAL/SURGICAL/PSYCHIATRIC HISTORY

For children include:

— relevant antenatal/postnatal and developmental history;
— history of behavioural problems (if considered relevant to allegations);
— family history.

2. RELEVANT GYNAECOLOGICAL HISTORY

First day of last normal menstrual period (DD/MM/YY):

Average number of days between menstrual periods:

Age at menarche (for children):

Was patient menstruating at the time of the assault? Yes No Not applicable

Is the patient currently pregnant? Yes No Not applicable

Pregnancy history:

Methods of contraception currently in use:

History of genital trauma, surgery or bleeding:

3. ALLERGIES

4. MEDICATIONS/IMMUNIZATION STATUS (e.g. hepatitis B, tetanus)

HISTORY OF OFFENCE

5. DETAILS FROM OTHER PARTIES (e.g. police, family, witnesses)

Details provided by (name): .....

6. DETAILS FROM PATIENT

Date(s) of assault (or period over which assaults occurred, number of assaults and date of last assault):

Time:

Location:

Assailant(s) (number and relationship to patient, if any):

Alcohol consumed:

Drugs consumed:

Weapons used, threats made:

Relevant details of assault:

7. CURRENT SYMPTOMS

SEXUAL VIOLENCE EXAMINATION RECORD	NAME: DATE OF EXAMINATION:

SUMMARY OF SEXUAL ASSAULT

VAGINAL PENETRATION	*Assailant 1*	*Assailant 2*	*Assailant 3*	*Assailant 4*	*Assailant 5*
Attempted/completed?					
Ejaculated Yes/No?					

ANAL PENETRATION	*Assailant 1*	*Assailant 2*	*Assailant 3*	*Assailant 4*	*Assailant 5*
Attempted/completed?					
Ejaculated Yes/No?					

ORAL PENETRATION	*Assailant 1*	*Assailant 2*	*Assailant 3*	*Assailant 4*	*Assailant 5*
Attempted/completed?					
Ejaculated Yes/No?					

	Assailant 1	*Assailant 2*	*Assailant 3*	*Assailant 4*	*Assailant 5*
EJACULATED ON BODY If 'Yes' list site					
SALIVA ON BODY If 'Yes' list site					
CONDOM USED (Yes/No/?)					
LUBRICANT USED (Yes/No/?)					

OBJECTS[1] USED FOR PENETRATION	*Assailant 1*	*Assailant 2*	*Assailant 3*	*Assailant 4*	*Assailant 5*
VAGINA					
ANUS					
MOUTH					

[1] Include body parts (e.g. digits).

8. POST ASSAULT

Detail clothing worn at time of assault:

Changed clothes	Yes	No
Cleaned clothes	Yes	No
Bathed/showered	Yes	No
Had sexual intercourse	Yes	No

9. RECENT INTERCOURSE

Intercourse during the past week	Yes	No

Details (date/time/with whom):

Was condom/spermicide/lubricant used?	Yes	No

Details:

Notes on the forensic examination

- The extent of the examination will be largely directed by the history and clinical observations. If there is any doubt, a complete external inspection is preferable.

- When describing wounds, consider: site, size, shape, surrounds, colour, contours, course, contents, age, borders and depth.

- Classify wounds:
  - ➤ Abrasion: disruption of the outer layer of the skin.
  - ➤ Bruise: an area of haemorrhage beneath the skin.
  - ➤ Laceration: splitting or tearing of tissues secondary to blunt trauma.
  - ➤ Incision: a cutting type of injury with (usually) clear, regular margins.
  - ➤ Stab: a wound of greater depth than length, produced by a sharp object.

- A speculum (or proctoscope) examination may be required for adults or post-pubertal sexually active children. Indications include:

  — genital pain;

  — bleeding;

  — foreign body (used during assault and possibly still present);

  — assaults > 24 hours earlier. In such cases, a cervical canal specimen is required.

  The speculum should be warmed and lubricated with water. A bimanual examination is rarely indicated post sexual assault.

- Photography (including colposcopic photography) provides a useful addition to wound documentation. Consider the following:

  — self, police or hospital photographers may be appropriate;

  — careful labelling of film/photos is vital;

  — photography of the genital region may cause considerable embarrassment for the patient; it should only be performed when the patient provides specific consent and if it is considered essential to the case.

- Notes on methods of collecting forensic specimens are provided on pages 19–20. Advice should be sought from the forensic laboratory on any variations to this methodology.

EXAMINATION

10. PERSONS PRESENT

Name(s): . . . . . .

. . . . . .

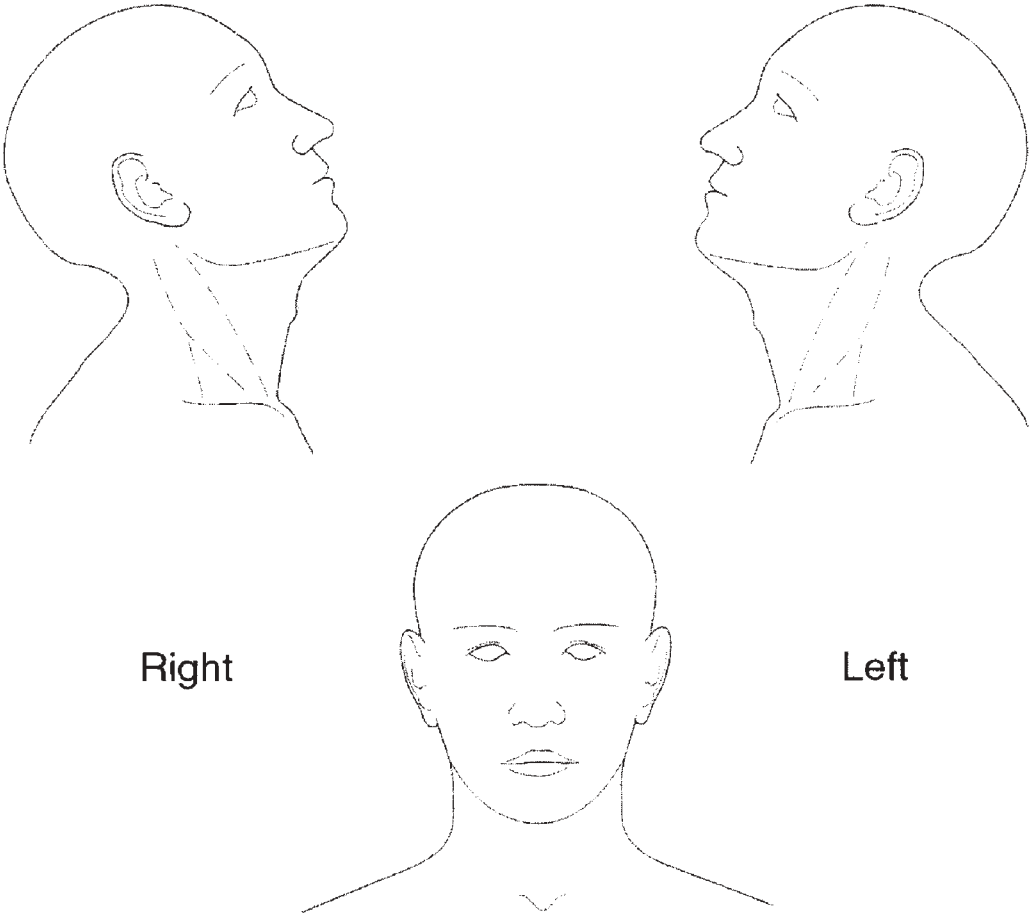
. . . . . .

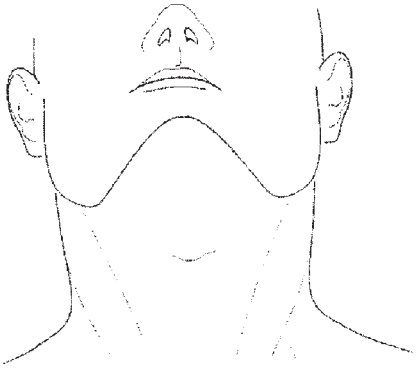
. . . . . .

11. INITIAL APPEARANCE (e. g. intellect, physical, sexual development, clothing, emotional state, effects of alcohol/drugs)

12. FINDINGS (place notes here; use body charts for diagrams)

SEXUAL VIOLENCE EXAMINATION RECORD	NAME: DATE OF EXAMINATION:





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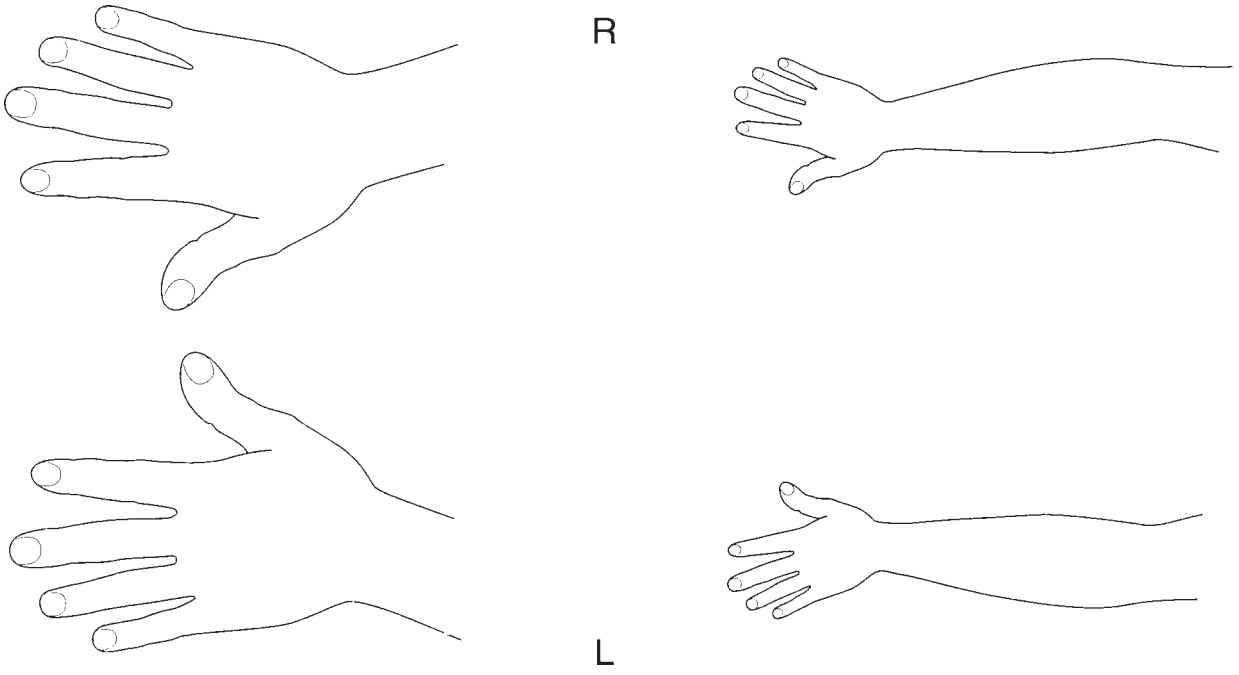
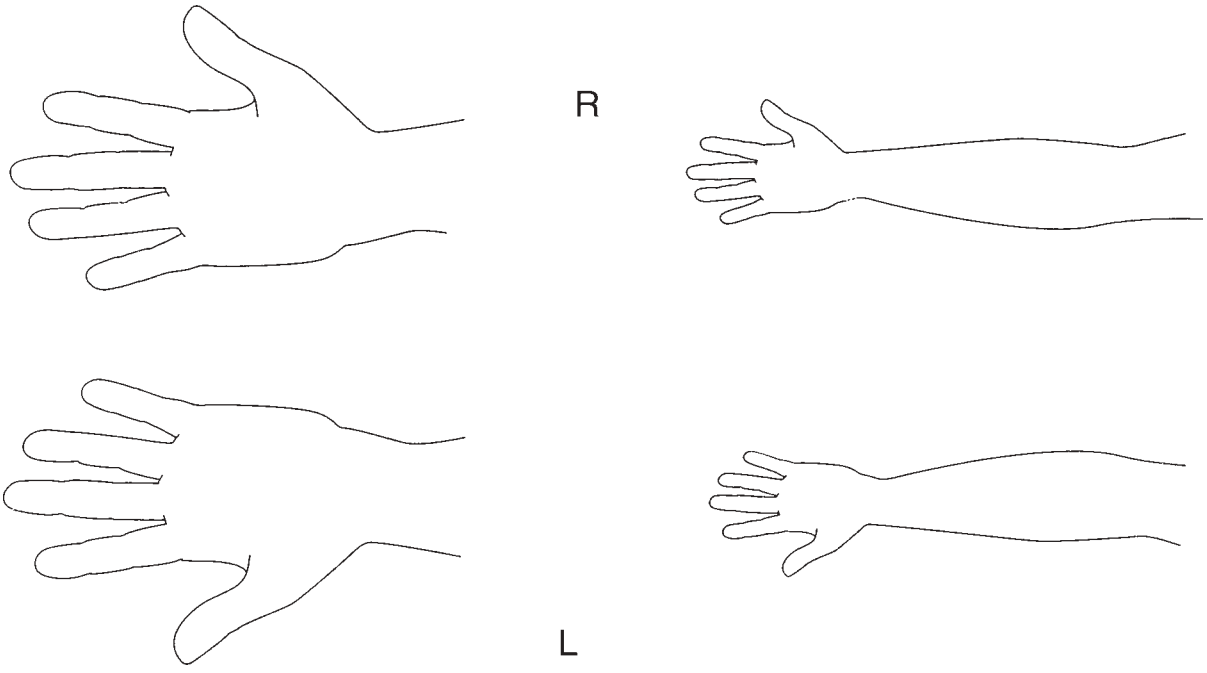
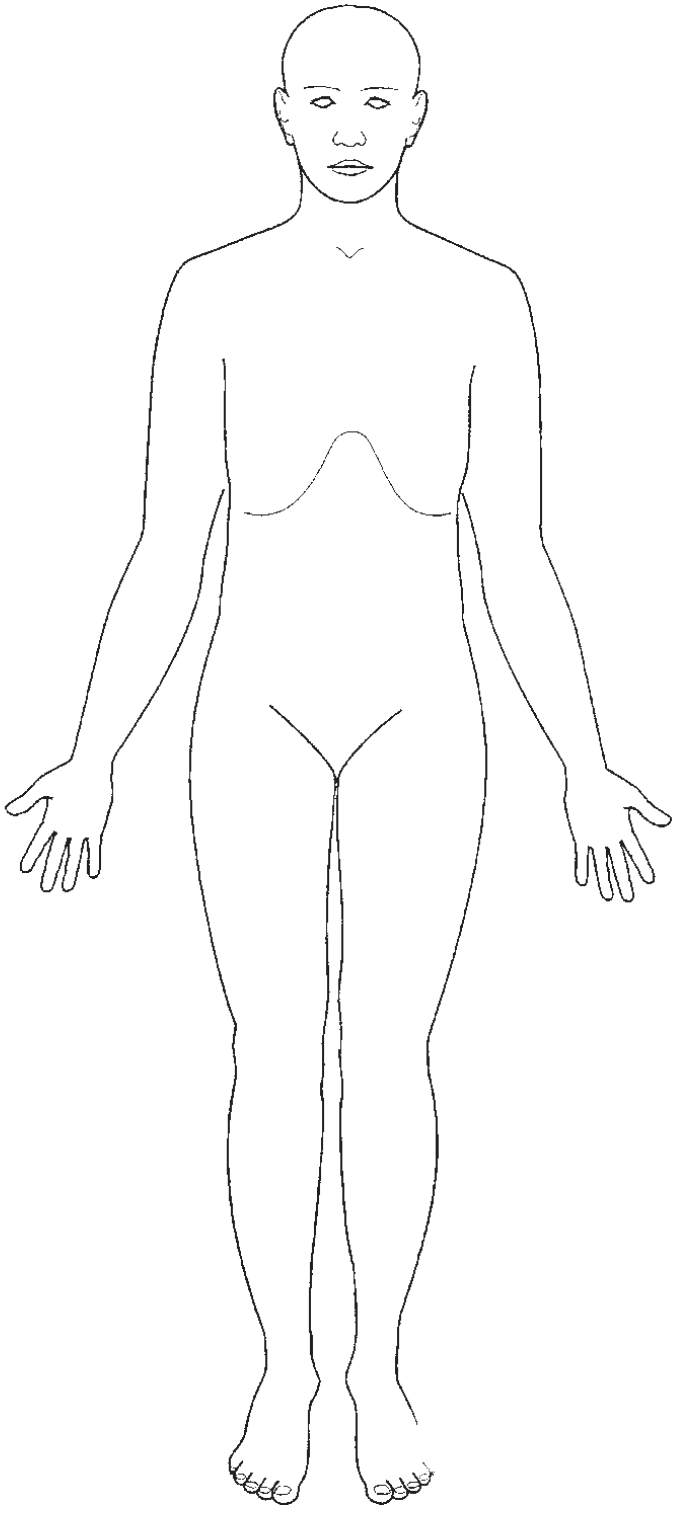




SEXUAL VIOLENCE EXAMINATION RECORD	NAME: DATE OF EXAMINATION:

Right



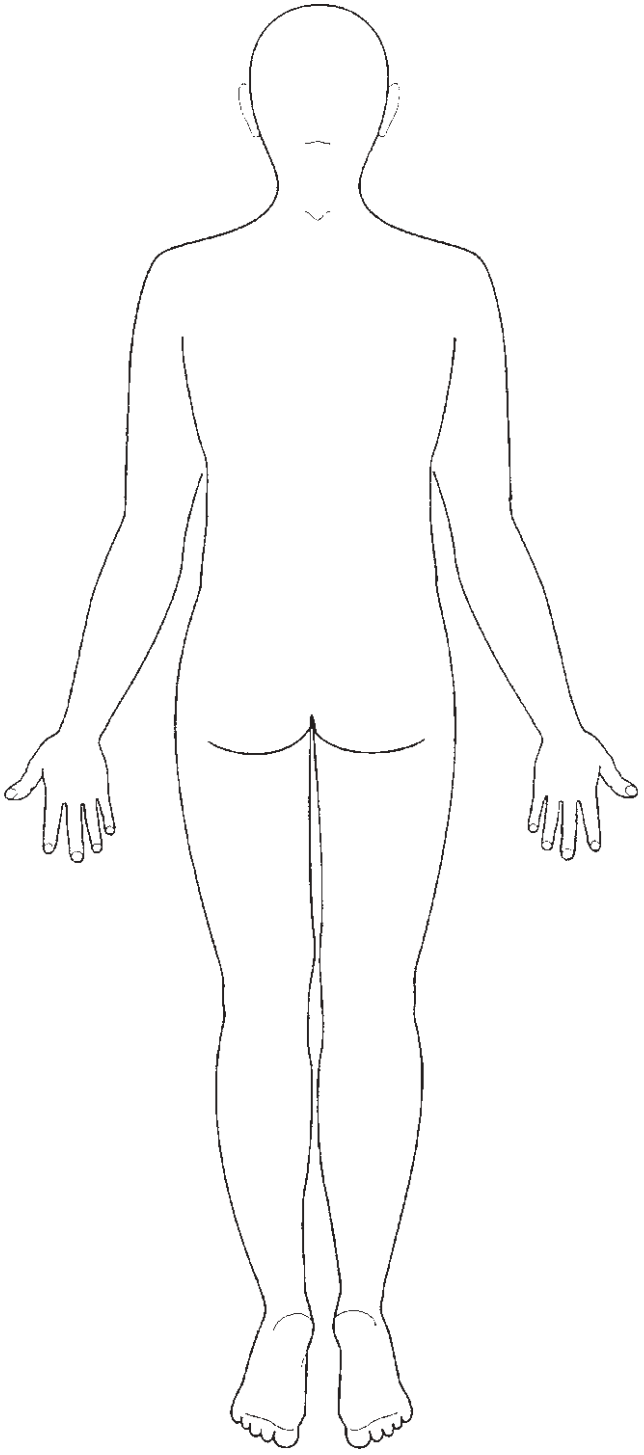
Left

Draw in outline of breasts as required.

SEXUAL VIOLENCE EXAMINATION RECORD	NAME: DATE OF EXAMINATION:

Left

Right



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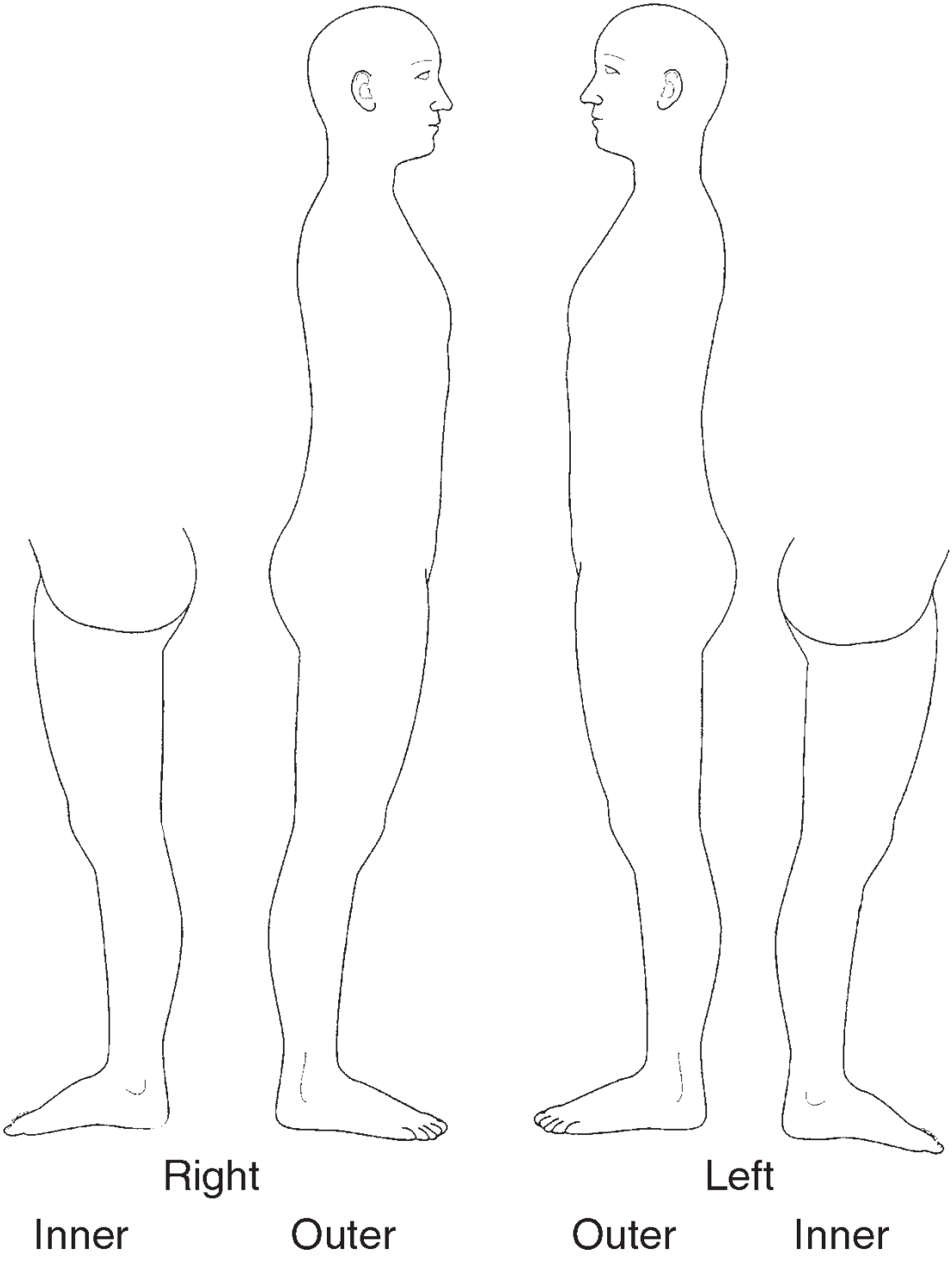
SEXUAL VIOLENCE EXAMINATION RECORD	NAME: DATE OF EXAMINATION:



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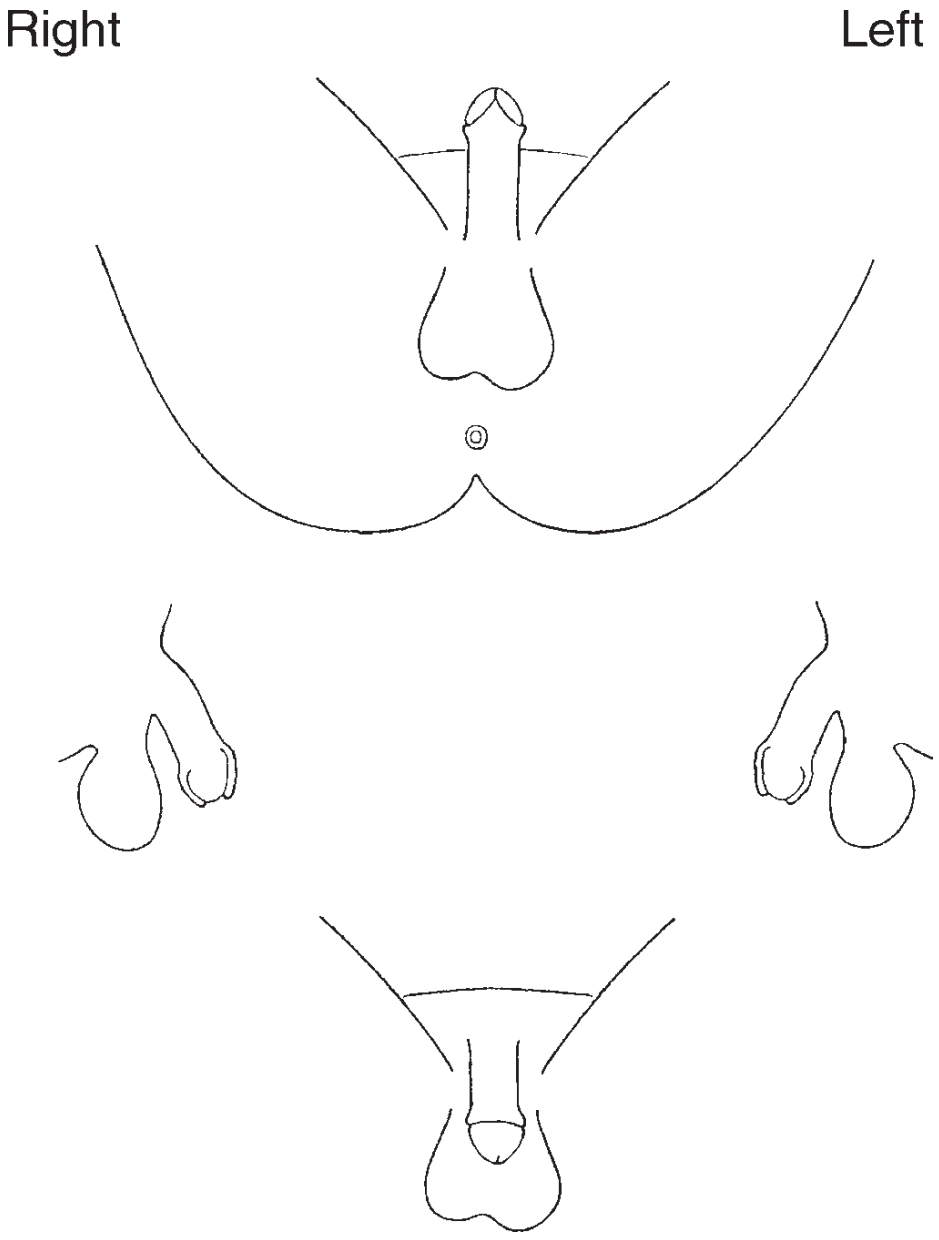
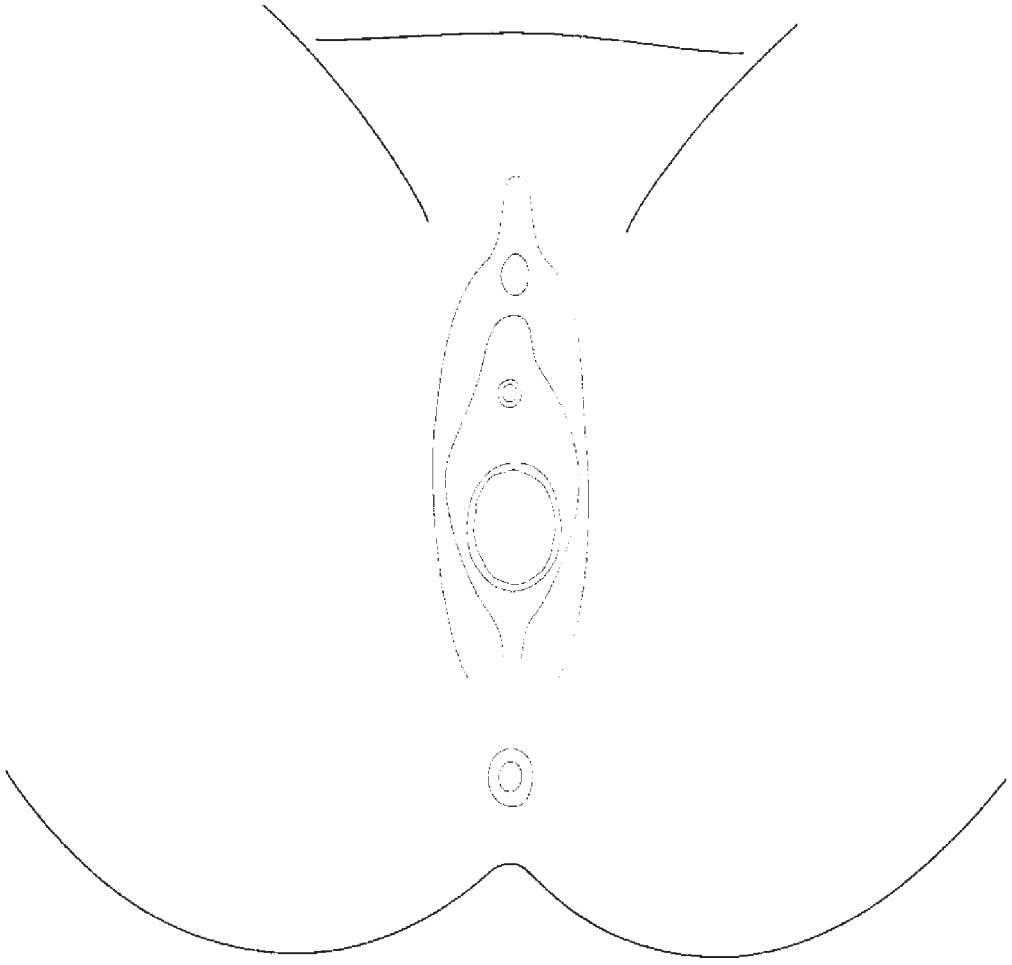


Proctoscopy conducted YES NO

Findings:

SEXUAL VIOLENCE EXAMINATION RECORD	NAME: DATE OF EXAMINATION:

Right Left



Speculum examination conducted YES NO

Proctoscopy conducted YES NO

Findings:

OTHER DETAILS

13. PHOTOGRAPHY No Yes

By whom?

Date and time:

14. MEDICATION PROVIDED

Emergency contraception	No	Yes	Details: . . . . .
STI prophylaxis	No	Yes	Details: . . . . .
HIV prophylaxis	No	Yes	Details: . . . . .
Other	No	Yes	Details: . . . . .

15. HOSPITAL PATHOLOGY No Yes

Details:

16. FOLLOW-UP ARRANGEMENTS (e.g. medical, counselling)

17. CONTACT MADE WITH OTHER HEALTH WORKERS

Letter	Yes	No
Telephone call	Yes	No

Details:

COLLECTION OF FORENSIC SPECIMENS

Informed consent specifically for specimen collection should be obtained, and documented.

Explain that the specimens may be used for the criminal justice process should a legal action go ahead. If a report of the assault has not been made (i.e. to the police) there may still be some benefit in collecting the specimens (and holding them for a time). This should be explained to the patient.

Some results of the tests may not be available to the patient (unlike diagnostic tests done by medical practitioners).

Consult with your local laboratory regarding appropriate types and handling of specimens. For example, do not collect DNA evidentiary material if your laboratory does not perform this test.

Once collected, the specimens should not be out of the doctor's sight until handed to the police. This process is called "continuity of evidence" and is designed to avoid allegations of specimen tampering. Record the name of the police officer to whom the specimens are handed, and the date and time of transfer, on the second to last page of this proforma (page 21).

Instructions to the patient
If the patient alleges oral penetration with possible ejaculation in the mouth, drinking and toothbrushing should be postponed until oral forensic specimens are collected. If the patient is thirsty, the oral specimen can be collected prior to history taking and examination (see below).

Use words like "gather" and "collect", as opposed to "take" and "scrape". A calm demeanor is helpful.

General precautions
Wear gloves for examination and specimen collection.

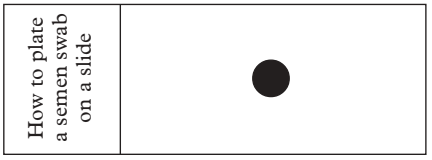
All forensic swabs are **dry** to begin with and should be **dry** to end with!

Recap dried swabs and seal with a patient label, if available.

In order to find spermatozoa, the laboratory will need a slide and a swab.

The slide is used to look for sperm (the adjacent diagram shows how to plate the specimen).

The sperm are then extracted from the swab for DNA typing.



SAMPLE LABEL	
Name of patient	**Ada Wells**
Date & time of collection	**01.10.02 0400 hrs**
Specific type of specimen	**Endocervical swab**
Name of doctor	**Dr A Welborn**

Specimens should be sealed into a bio-hazard bag.

Every specimen should be labelled with identifying data (see example).

Order of collection
Clothing
Trace evidence from the patient's clothes will not be lost if the patient is instructed to undress over a large sheet of paper (drop sheet). One way of doing this is to ask the patient to stand on a sheet of paper, behind a screen and hand out the items of clothing one by one, to be placed in individual paper bags. Note which items of clothing have been collected. Check with the police which items of clothing are required.

Drop sheet
The drop sheet could have evidence from the offender such as pubic hairs, head hairs and clothing fibres.

The drop sheet could have evidence from the scene such as sand, fibres or vegetation.

The drop sheet is folded in such a way so as to retain any evidence, placed in a paper bag and sealed with a patient label.

Sanitary pad/tampon
These items should be dried and sealed in a double paper bag.

Fingernail scrapings
An allegation of the victim scratching the assailant may leave foreign DNA or fibres under the patient's fingernails. A wooden swab stick may be broken in half, one used for each hand, and the remnants placed in a sterile urine jar. Alternatively, the fingernail(s) can be cut and the clippings placed in the container.

Head hair for comparison purposes
Twenty representative hairs should be cut from over the head, placed on a piece of paper, folded as the drop sheet, sealed and bagged.

Oral swab
Spermatozoa in the mouth collect in the same places as saliva. The best reservoirs are therefore the gingival margins of the lower teeth and under the tongue. This swab should be done if there is allegation of oral penetration within the last 12–24 hours. Alternatively, have the patient his/her mouth with 20–30 ml of sterile water and collect the rinsings in a sterile container.

Saliva on skin
Assailant DNA can be recovered. The double swab technique involves (a) swabbing the affected area with a swab moistened with tap water, followed by (b) swabbing with a dry swab. Both swabs should be air dried and submitted.

Semen on skin
The double swab technique can be also be used for skin where dried semen may be present. Both the first moist swab and the second dry swab should have slides made from them. Use this technique wherever ejaculation may have occurred, including the vulva and anus.

Pubic hair combing
Performed infrequently and only if foreign hair is noted on examination. Submit comb and products. Collect foreign materials with a swab stick and submit in a sterile container.

Vaginal swab
A swab taken with or without the use of a speculum, depending on patient/doctor preference.

Endocervical swab
Can be collected with the use of a speculum for direct visualization of the cervix. Use warm water to lubricate the speculum.

Anal and rectal swab
An anoscope may be used, or the anus can be swabbed under direct vision.

Victim / Assailant DNA for comparison
If there is no allegation of oral penetration, a buccal swab may be taken. Otherwise, blood will provide DNA (see below).

Blood for DNA
Should be collected into an appropriate tube.

Blood for drugs
Use a plain tube.

Urine for drugs
Instruct the patient to provide a full sterile container of urine.

SEXUAL VIOLENCE EXAMINATION RECORD	NAME: DATE OF EXAMINATION:

FORENSIC SAMPLES

Health Worker's Copy

SAMPLES

Clothing (bags) ..... ☐
Drop sheet ..... ☐
Sanitary pad/tampon ..... ☐

BODY EVIDENCE

Oral swab and slide ..... ☐
Foreign material on body ..... ☐
Semen-like stains on body ..... ☐
Semen-like material on head hair ..... ☐
Semen-like material on pubic hair ..... ☐
Combings of pubic hair ..... ☐
Fingernail evidence ..... ☐
Body swab (for saliva) (note site) ..... ☐
Other (specify) ..... ☐

GENITO-ANAL EVIDENCE

Foreign material ..... ☐
High vaginal swab and slide ..... ☐
Endocervical swab and slide ..... ☐
Anal swab and slide ..... ☐
Rectal swab and slide ..... ☐
Other (specify) ..... ☐

COMPARISON SAMPLES

Pubic hair ..... ☐
Head hair ..... ☐
Buccal swab for DNA ..... ☐
Blood for alcohol and drugs (plain tube or fluoride/oxalate vial) ..... ☐
Urine for drugs ..... ☐

OTHER

Other samples (list) ..... ☐
..... . ☐

TOTAL NO. OF SEALED BAGS ☐

The samples listed were handed to:

Name: ..... Rank/number: .....

Station/squad: .....

Date and time: .....

Signed: .....

CONFIDENTIAL

SEXUAL VIOLENCE EXAMINATION RECORD	NAME: DATE OF EXAMINATION:

FORENSIC SAMPLES

Laboratory Copy[1]

Date and time collected: .....hours on / /

SAMPLES

Clothing (bags) ..... ☐
Drop sheet ..... ☐
Sanitary pad/tampon ..... ☐

BODY EVIDENCE

Oral swab and slide ..... ☐
Foreign material on body ..... ☐
Semen-like stains on body ..... ☐
Semen-like material on head hair ..... ☐
Semen-like material on pubic hair ..... ☐
Combings of pubic hair ..... ☐
Fingernail evidence ..... ☐
Body swab (for saliva) (note site) ..... ☐
Other (specify) ..... ☐

GENITO-ANAL EVIDENCE

Foreign material ..... ☐
High vaginal swab and slide ..... ☐
Endocervical swab and slide ..... ☐
Anal swab and slide ..... ☐
Rectal swab and slide ..... ☐
Other (specify) ..... ☐

COMPARISON SAMPLES

Pubic hair ..... ☐
Head hair ..... ☐
Buccal swab for DNA ..... ☐
Blood for alcohol and drugs (plain tube or fluoride/oxalate vial) ..... ☐
Urine for drugs ..... ☐

OTHER

Other samples (list) ..... ☐
..... . ☐
..... . ☐

HEALTH WORKER'S NAME: .....

[1] This copy to be enclosed with specimens. These should be taken to the laboratory.

ANNEX 2

Medical issues and sexual violence

This part of the guidelines provides background medical information that is relevant to the care of victims of sexual violence. The topics covered include genito-anal anatomy and conditions affecting the female genitalia (e.g. pathological conditions, childbirth, female genital mutilation, etc.). It is stressed that the material included here is intended to serve as an introduction to these subject areas; for further information, users are referred to more comprehensive texts, such as those listed in the attached bibliography.

Genital structure and function

Health workers who are required to perform genito-anal examinations on individuals who have experienced sexual violence must have a good understanding of normal anatomy. A working knowledge of the main pathological conditions affecting the genitalia is also essential. Initial and ongoing training and peer review are vital to developing and maintaining skills in this field.

Children

Specialized training is required in order to conduct genito-anal examinations, to identify normal and abnormal anatomic variants, and to describe findings appropriately in individuals under 18 years of age.

The female genitalia

The anatomy of the genitalia in pre-pubertal female children differs from that of fully developed females. In infants (i.e. under 2 years of age), when maternal estrogen is present, the hymen may be thick, somewhat convoluted and waxy in appearance. The waxy appearance is typically seen in neonates and in children who are being breastfed. Once this estrogen source disappears, the hymen becomes very thin and vascular.

In pre-pubescent females, the genitalia have the following characteristics:

- The labia majora are flat and the labia minora thin relative to those of the adult.
- The clitoris is usually hidden by the labia majora.
- The labia minora extend only part way down from the anterior commissure (i.e. the site at which the labia majora meet anteriorly) and do not reach the midpoint posteriorly. The area where the labia majora meet posteriorly is the posterior commissure. This is also referred to as the posterior fourchette although properly defined, the posterior fourchette is the area where the labia minora meet posteriorly. The posterior commissure, therefore, is present

in both pre-pubescent and fully developed females, while the posterior fourchette is only present in the latter.

- The hymenal orifice edge is usually regular, smooth and translucent, and very sensitive to touch.
- Mucous membranes of the vagina are thin, pink and atrophic.
- These tissues have little resistance to trauma and infection.

In later childhood, the following changes become evident:

- The external genitalia begin to show signs of early estrogen.
- The mons pubis thickens.
- The labia majora fill out, the labia minora become more rounded and extend towards the posterior fourchette.
- The hymen thickens and the opening increases in size, although this is not readily apparent as the thickened hymen covers it more completely.
- The vagina elongates and vaginal mucosa thickens.

The shape of the hymen in pre-pubescent girls is variable and can be described as:

— *imperforate*: no hymenal opening present (very rare);
— *crescentic*: posterior rim of hymen with attachment at approximately 11 and 1 o'clock positions, i.e. a half moon shape;
— *annular*: tissue that surrounds the opening at 360°, i.e. a circular shape;
— *sleeve-like*: an annular shape but with a vertically displaced orifice;
— *septate*: two or three large openings in the hymenal membrane;
— *cribiform*: small multiple openings in the hymenal membrane;
— *fimbriated*: redundant tissue that folds over itself similar to excess ribbon around an opening.

The shape of the hymenal orifice can be described further by the appearance of clefts, bumps, notches, tags, or the presence of thickening or thinning at the edge of the orifice.

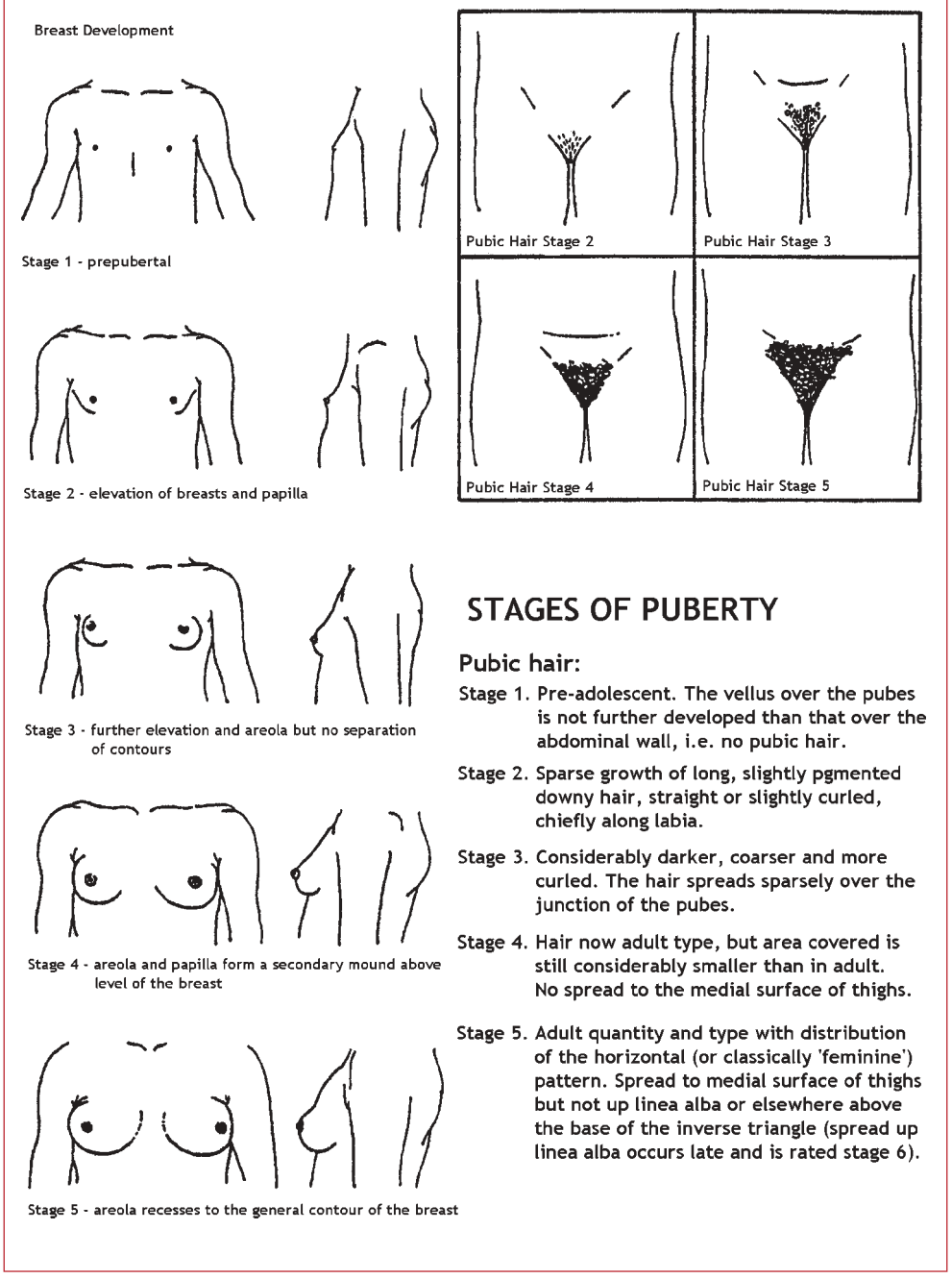
Puberty begins in females aged between 8 and 13 years and takes several years to complete. Onset will vary depending on the child's general health and nutritional status, socioeconomic factors and genetic factors. The physical stages occur in an orderly sequence (see Fig. 1), with the external genitalia gradually assuming an adult appearance as follows:

— the labia minora reach down all the way posteriorly and meet to form the posterior fourchette;
— the mons pubis begins to be covered by pubic hair;
— the hymen thickens, develops folds and has increased elasticity and decreased pain sensitivity;
— mucous production begins;
— the vagina lengthens to 10–12 cm and mucosa is thick and moist.

The male genitalia

The testes are normally descended into the scrotum at birth, and in pre-pubertal boys are typically less than 2.2 cm in diameter. In boys, puberty begins between 9.5 and 13.5 years of age, and at this time:

Figure 1 **Stages of puberty in the female**



Source: adapted from The Adelaide Children's Hospital, 1989.

— the testes enlarge;
— the scrotum skin becomes thin and reddened;
— the mons pubis begins to be covered by pubic hair.

The phallus enlarges gradually from birth through to adolescence, when a further slight increase in size is observed.

Anal anatomy (both sexes)

There is considerable variation between individuals in the appearance of the anus, including:

— degree of pigmentation;
— symmetry of the structures;
— rugal patterns;
— tone of the anal sphincter;
— prominence and distribution of the vascular structures.

Anal anatomy does not change with puberty, except for the appearance of pubic-like hair that can surround the external anal tissues.

Adult women

The main anatomical features of the genitalia in the adult female are illustrated in Fig. 2. These features vary in appearance from one woman to another (*37*); in particular, there is:

— marked variation in the amount and distribution of pubic hair;
— variation in the size, pigmentation and shape of the labia;
— variation in the size and visibility of the clitoris;
— variation in the location of the urethral orifice and the vaginal orifice.

The hymen is a collar or semi-collar of tissue surrounding the vaginal orifice; it is not a closed door sealing the vaginal orifice (*32*). It too has many normal configurations. In sexually active women, particularly after childbirth, the hymen is often reduced to a ring of tissue remnants called carunculae.

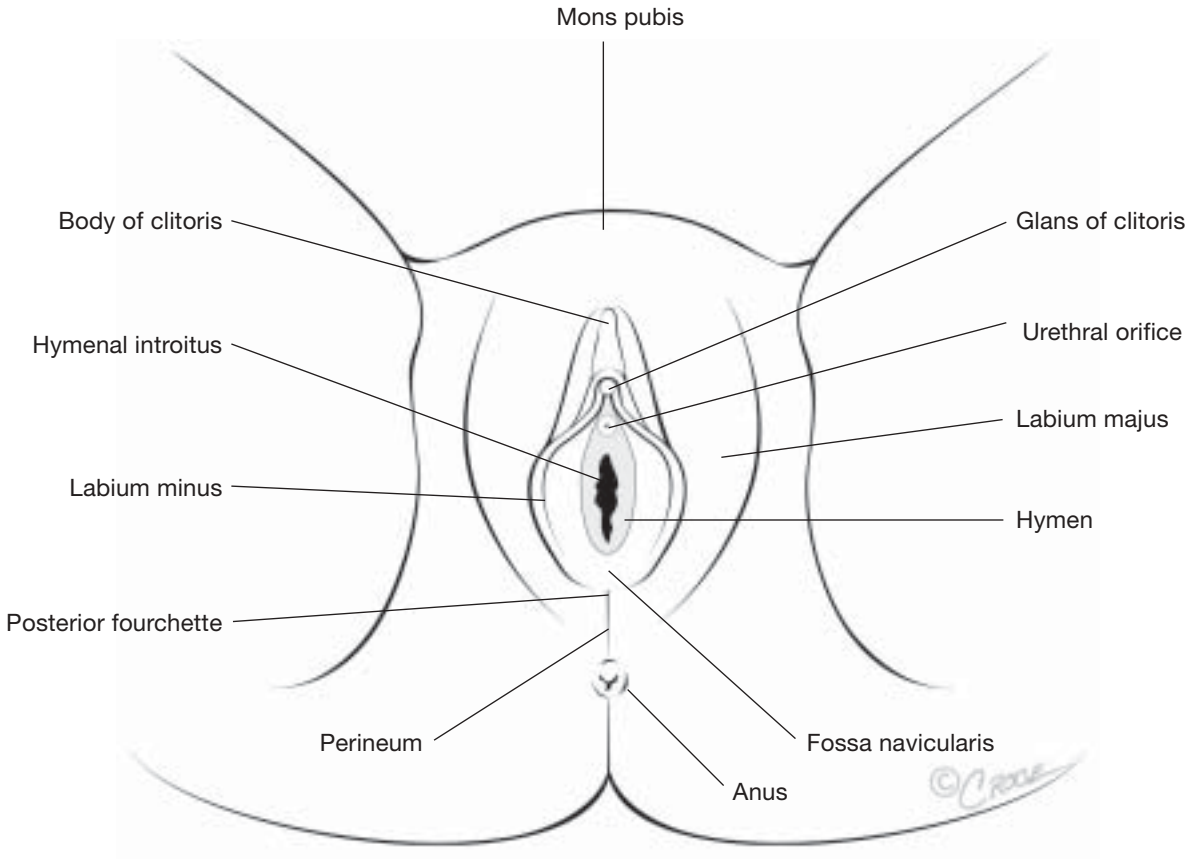
The uterus is usually anteverted. However, in 15% of non-pregnant women it sits in a retroverted position, which can make the location of the cervix on speculum and bimanual examination more difficult.

When describing genito-anal structures, it is important to aim for consistency and clarity in the terminology used, not only among health care professionals but also within the medico-legal system (*38–40*). Anatomical terms that are commonly misused by health care professionals when describing certain structures of the female genital area, both child and adult, are explained in Box 1.

Pregnancy

Sexual violence against pregnant women is not uncommon. According to population studies from various countries, between 6% and 15% of ever-

Figure 2 **Anatomical sites on the external genitalia of a mature female**



BOX 1

Female genital anatomy and recommended terminology

- The **vaginal vestibule** is the space in front of the hymenal membrane that is enclosed by the labia minora. This is sometimes incorrectly referred to as the introitus.
- Reference to the hymenal opening should be made using the term "**hymenal orifice**" and not "introitus" in order to avoid confusion.
- The **fossa navicularis** is the concave area between the posterior attachment of the hymen to the vaginal wall and the posterior fourchette (or commissure).
- The **posterior fourchette** is the point where the labia minora meet posteriorly and fuse together. It is only present after puberty, though this term is often applied, albeit incorrectly, to pre-pubescent girls.
- The **posterior commissure** is the point where the labia majora meet and fuse together, both before and after puberty.

partnered women have been sexually and/or physically abused during pregnancy (*41*).

Pregnancy causes marked physiological and anatomical changes in women; these will need to be taken into account when performing an examination of a pregnant woman who has been sexually victimized.

The anatomical changes that take place during pregnancy depend on the gestation of the fetus and are summarized below:

- *First trimester* (i.e. up to 13 weeks gestation). The uterus is enlarging, but still protected from abdominal blows within the pelvis. The uterus is generally not palpable above the symphysis pubis until 12 weeks gestation. There is increased vascularity of the vaginal tract and increased physiological discharge.
- *Second trimester* (i.e. 13 weeks to 27 weeks). The uterus is palpable up to the umbilicus by 20 weeks. The fetus and placenta are therefore vulnerable to abdominal trauma.
- *Third trimester* (i.e. 28 weeks to 40 weeks or term). The cervix comes into the vaginal axis so that direct forceful contact with the cervix can cause bleeding and even the onset of labour. The fetus is vulnerable to abdominal trauma, which can cause placental abruption and fetal death. Vulval varicosities may form and there is a marked increase in physiological mucus.

After delivery, further physiological changes mean that estrogen levels in the body are low but prolactin levels are high, especially in those women who are breastfeeding. This has the effect of reducing vaginal lubrication and distension. The walls of the vagina can become thinned and the pink rugal (folded) pattern can be lost (*37*).

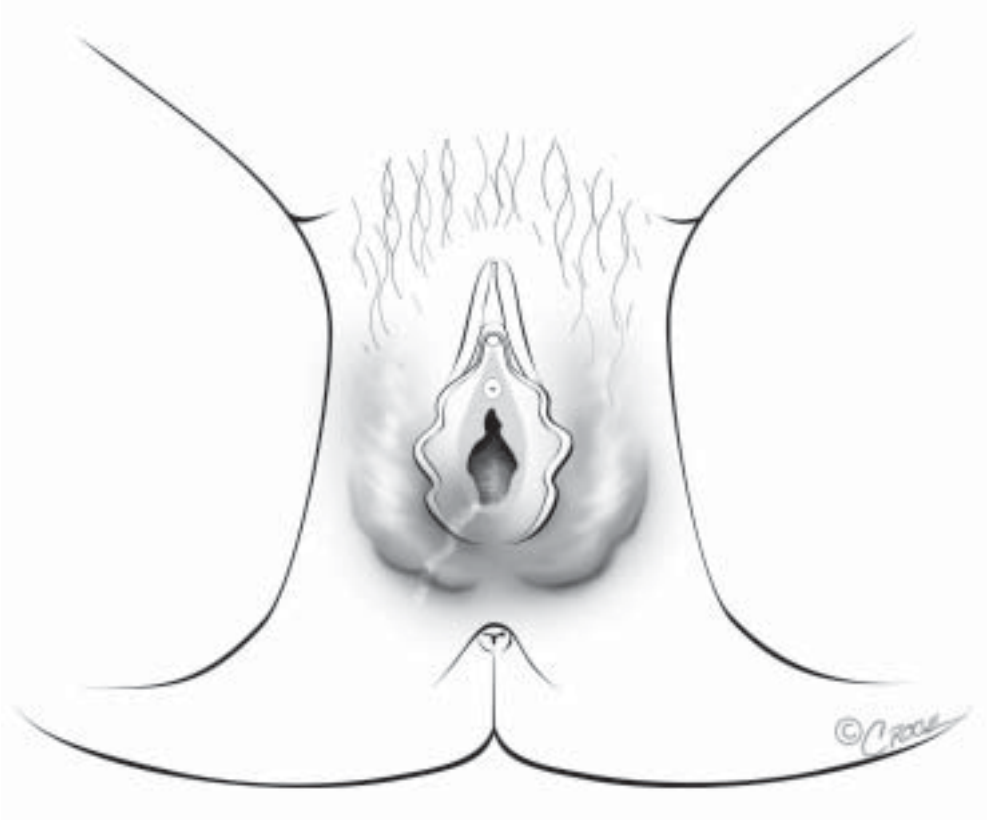
Vaginal delivery can sometimes cause trauma to the genital area, especially in the event of interventions (i.e. forceps deliveries, episiotomies). This will leave characteristic patterns of scarring, such as healed perineal lacerations (Fig. 3) and episiotomy scars (see also section 3.2.4 Traumatic injuries).

Postmenopausal women

Menopause is the time in a woman's life when estrogen levels drop and menstruation ceases. Anatomical changes taking place at this time include (see Fig. 3):

— a thinning of the hair over the mons pubis and labia majora;
— a decrease in subcutaneous fatty tissue;
— the inner surfaces of the labia minora become pale and dry;
— the vaginal orifice may become smaller (very small speculums may need to be used);
— the vaginal orifice may gape and rectocoeles, cystocoeles or frank uterine prolapses may be seen;
— the vaginal walls become smooth, thin, shiny and less elastic;
— less mucus is produced.

Figure 3 **External genitalia of postmenopausal elderly female showing a healed perineal laceration from childbirth**



The decrease in lubrication and the increased fragility of the tissues in the elderly woman increases the possibility of genital injury in sexual assault (*42*).

Conditions affecting the female genitalia

There are a number of medical conditions that affect the female genitalia, and which may be present in patients seeking medical treatment for sexual violence. Medical conditions that health workers should be able to recognize and treat, or refer for treatment, include the following:

— infective conditions (i.e. sexually transmitted infections);
— neoplastic diseases (i.e. cancers);
— inflammatory conditions (e.g. lichen sclerosis).

The more common infective, neoplastic and inflammatory conditions are briefly described on the subsequent pages; some are also illustrated (see Figs 4–8). However, it is beyond the scope of this document to provide a comprehensive description of the symptoms and pathological features of all these types of diseases. Health workers are therefore referred to the relevant texts on the subject listed in the attached bibliography and strongly urged to develop their diagnostic and management skills in this field.

In addition to the medical conditions mentioned above, patients may present with visible signs of injury or trauma to the genito-anal area that may have

nothing to do with a sexual assault. Typically, these will be related to childbirth. The characteristics of injuries of this nature are also outlined below, together with a description of anatomical changes that are associated with the practice of female genital mutilation.

It is essential that health practitioners are aware of the various medical conditions that may reveal themselves on genito-anal examination and are able to differentiate between injury caused by recent sexual violence and injury caused by other past events (i.e. childbirth, female genital mutilation). Patients presenting with existing infective, neoplastic and inflammatory conditions should be treated or referred for treatment, as necessary.

Infective conditions

Sexually transmissible infections (STIs) are caused by pathogenic organisms acquired through sexual contact. STIs require treatment of the patient and his/her sexual contacts, carry important public health implications and are usually notifiable diseases.

STIs are often asymptomatic and will be detected only by close physical examination and laboratory testing. Health workers should be able to demonstrate a basic familiarity with the pathological features of each of the following STIs:

— genital herpes (see Fig. 4);
— human papillomavirus infections (see Fig. 5);
— gonorrhoea;
— *Chlamydia trachomatis*;
— trichomoniasis;
— syphilis (see Fig. 6);
— granuloma inguinale (donovanosis);
— chancroid;
— Lymphogranuloma venereum;
— pubic lice and scabies.

STIs and non-sexually transmitted infections commonly co-exist. There are a number of non-STI genital infections to be aware of, including candidiasis and bacterial vaginosis. It is also important to keep in mind that genital ulceration, while indicative of certain STIs, may also be indicative of pyogenic infections, drug eruptions, secondarily infected scabies or Behcet's disease.

Neoplastic diseases

Carcinomatous conditions of the vulva cause genital ulceration (Figs 7 and 8). If carcinomatous conditions are suspected, patients should be examined for spread to the local lymph nodes in the inguinal area.

Figure 4 **Herpes simplex ulceration of the vulva**

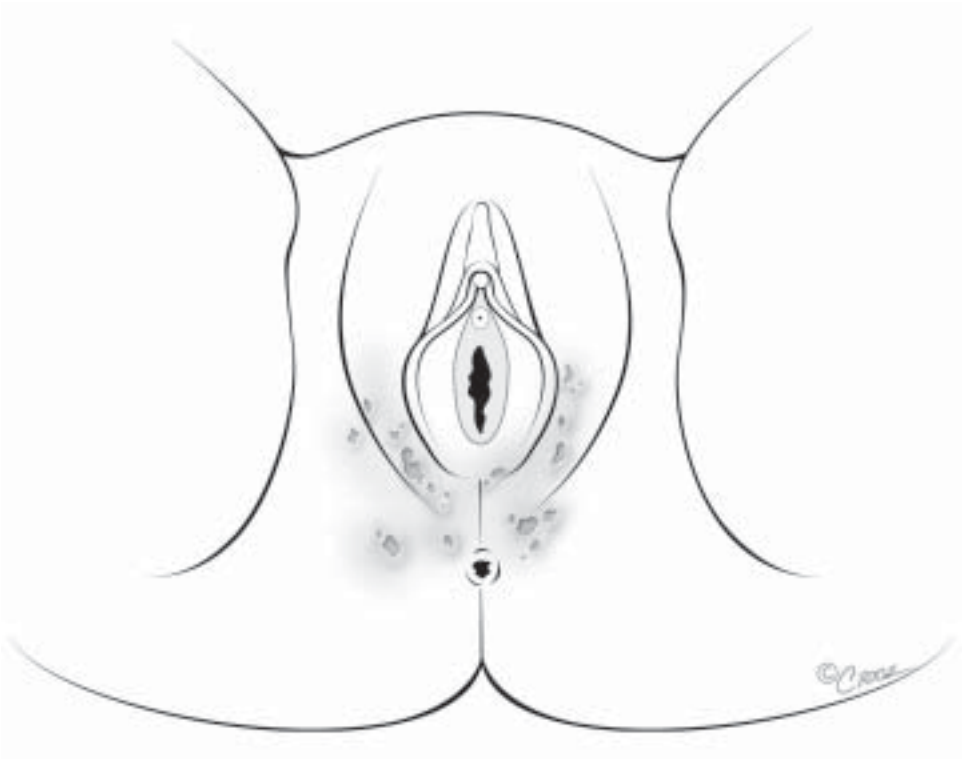


Figure 5 **Widespread warts of the vulva, perineum and perianal area**

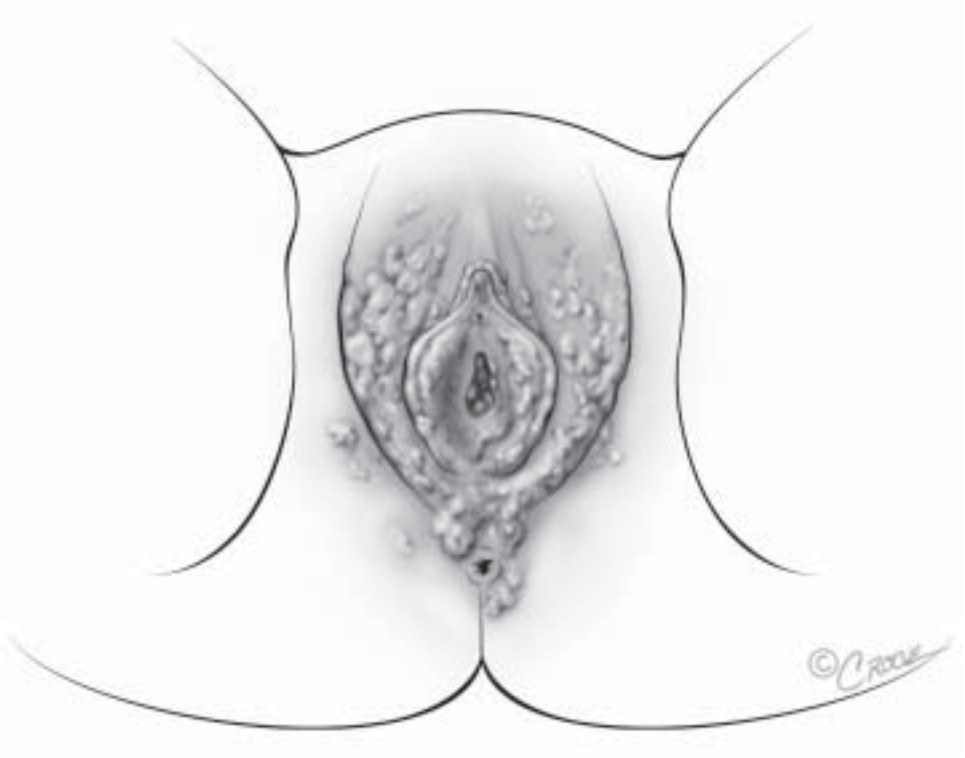


Figure 6 **Secondary syphilis of the vulva with characteristic condlyomata**

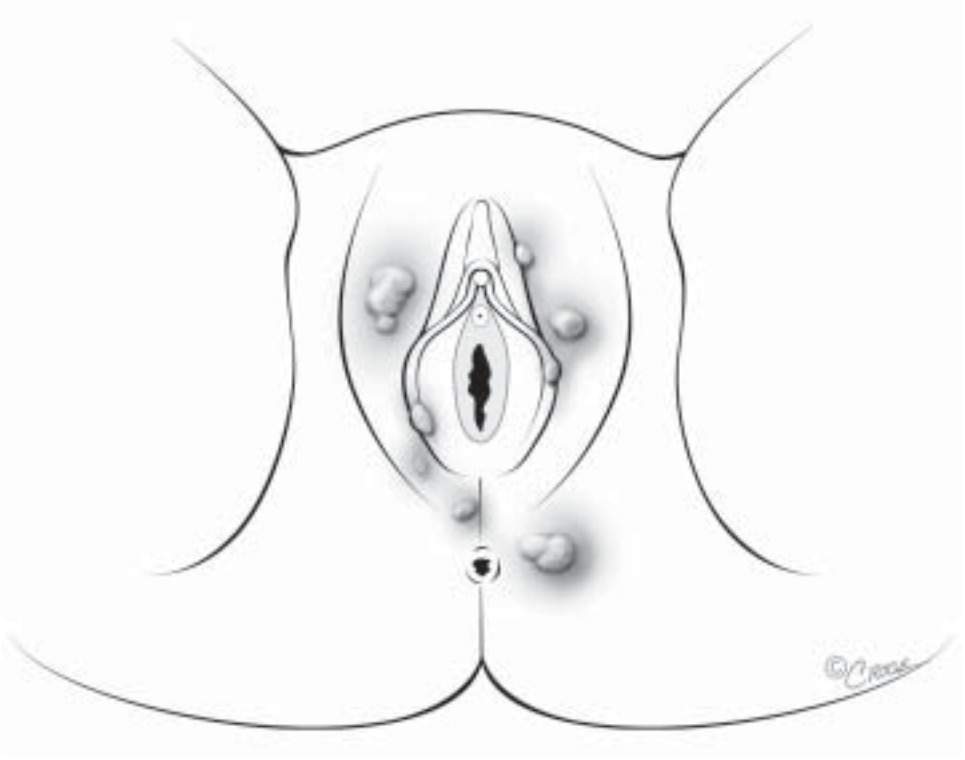


Figure 7 **Vulval intraepithelial neoplasia**

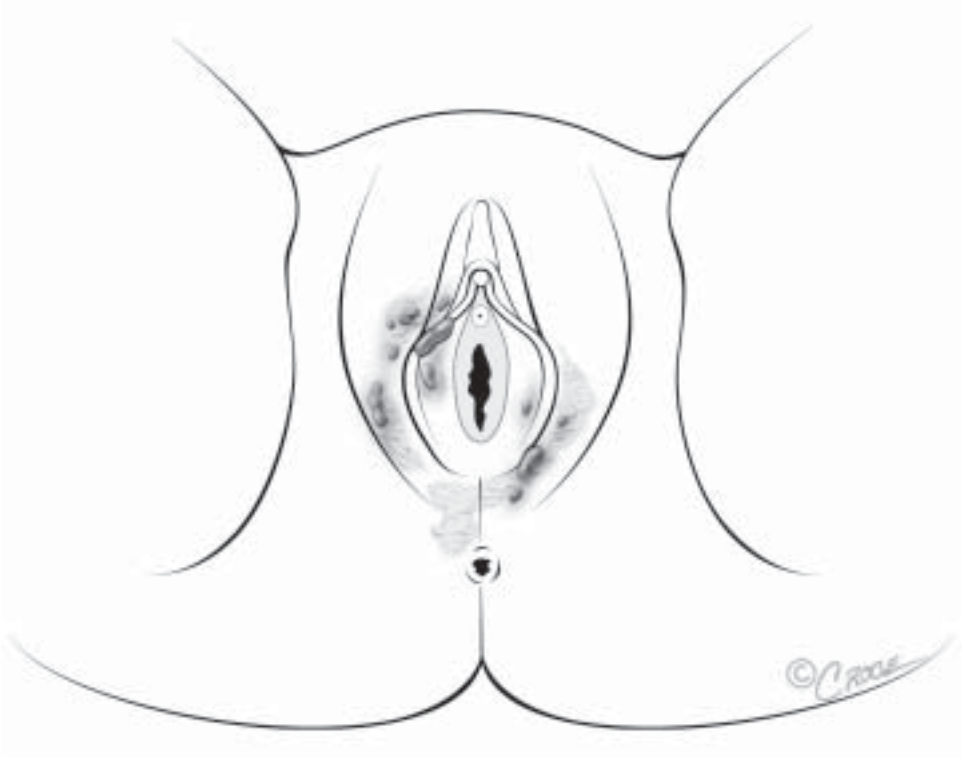
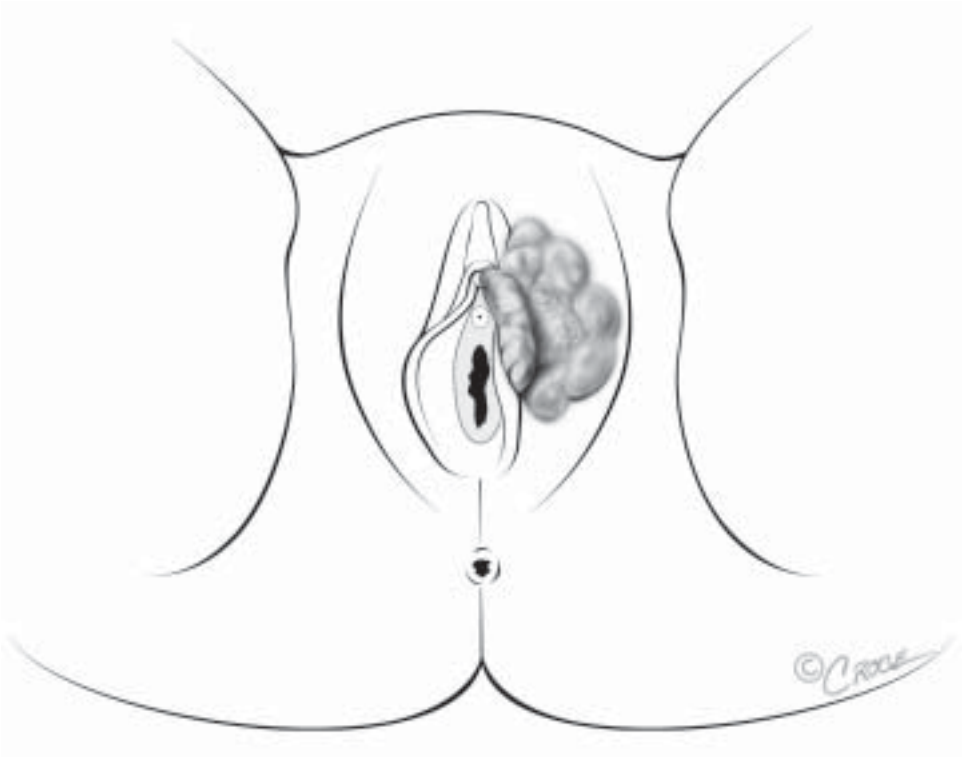


Figure 8 **Vulval invasive carcinoma**



Inflammatory diseases

Lichen sclerosis is the most common cause of dystrophic change of the vulva.

Traumatic injuries

Childbirth

Trauma to the genital tract may occur during childbirth. Uncontrolled delivery or interventions involving the use of instrumentation (e.g. in forceps deliveries, vacuum extractions) may cause injury to the perineum and anus, and/or to the clitoris and anterior structures.

An episiotomy is a medically performed incision of the perineum to allow delivery of the child. It is also done to assist with instrumental deliveries. The episiotomy is generally made lateral to the midline. If a midline tear occurs, it may extend to the anal sphincter and this may result in a recto-vaginal fistula.

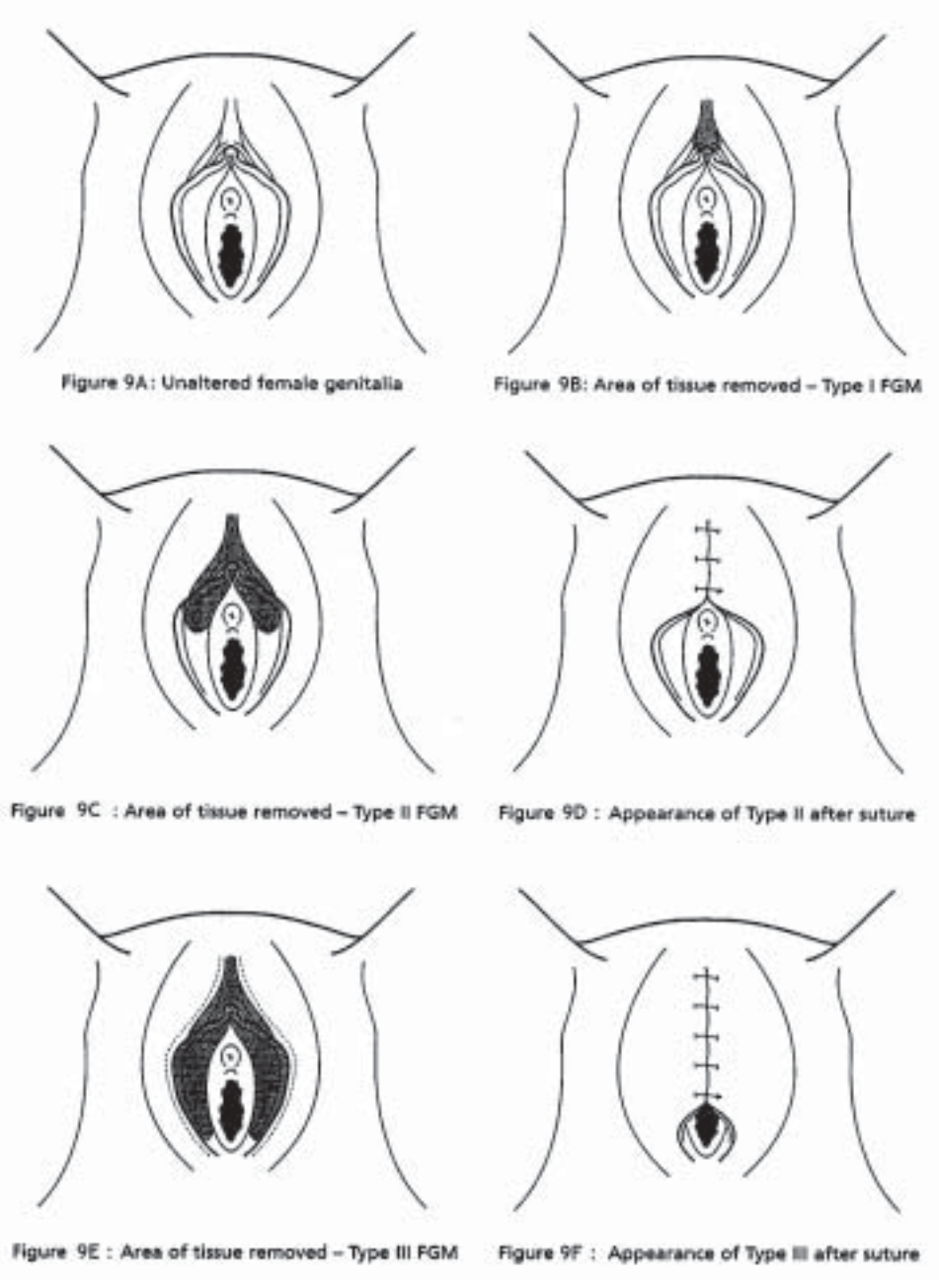
Female genital mutilation

Female genital cutting or mutilation, i.e. the partial or complete removal of female genitalia, will result in an altered genito-anal anatomy. As sexual assault patients may have had some degree of female genital cutting in their past, or the reversal of such procedures, health workers should have a reasonable knowledge of these practices.

WHO defines female genital mutilation (FGM) as, "all procedures involving partial or total removal of the female external genitalia or other injury to the

female genital organs whether for cultural or other non-therapeutic reasons" (*43*). Four distinct degrees or types of FGM are recognized; these are described in Box 2 and illustrated in Fig. 9.

Figure 9 **WHO classification of FGM**



Source: reference (*43*)

BOX 2

WHO classification of female genital mutilation

Type I **Excision of the prepuce, with or without excision of part or all of the clitoris (Fig. 9b)**
Other terms used to describe Type I FGM procedures include circumcision, ritualistic circumcision, sunna and clitoridectomy.

Type II **Excision of the clitoris with partial or total excision of the labia minora (Figs 9c and d)**
Other terms used to describe Type II FGM procedures include clitoridectomy, sunna, excision and circumcision.

Type III **Excision of part or all of the external genitalia and stitching/narrowing of the vaginal opening (Figs 9e and f)**
Other terms used to describe Type III FGM procedures include infibulation, Pharaonic circumcision and Somalian circumcision.

Type IV **Unclassified**
Unclassified or type IV forms of FGM include:

- pricking, piercing or incising of the clitoris and/or labia;
- stretching of the clitoris and/or labia;
- cauterization by burning of the clitoris and surrounding tissue;
- scraping of tissue surrounding the vaginal orifice (angurya cuts) or cutting of the vagina (gishiri cuts);
- introduction of corrosive substances or herbs into the vagina to cause bleeding or for the purpose of tightening or narrowing it;
- any other procedure which falls under the WHO definition of female genital mutilation given above.

ANNEX 3

Health worker education and training

The ACEP/IAFN programme

The programme provided jointly through the American College of Emergency Physicians (ACEP) and the International Association of Forensic Nurses (IAFN) is aimed at health practitioners (i.e. doctors and nurses) and is designed to develop the key competencies required of health professionals providing health services to victims of sexual assault (*1,2*).

The course consists of 40 hours of didactic content and an additional 40–96 hours of clinical practicum. In addition to the initial training, it is recommended that health care providers attend yearly in-services or continuing education courses that cover the treatment and management of victims of sexual violence.

The ACEP/IAFN curriculum is outlined below; it can be modified to suit local needs, resources, laws and practice regulations, as appropriate.

Minimum core curriculum

The minimum recommended core curriculum comprises the following modules:

1. The multidisciplinary team concept

i. Collaboration with law enforcement personnel, the criminal justice system, rape crisis agencies, other community agencies and nongovernmental organizations (NGOs).
ii. Roles and responsibilities of the rape crisis advocate, law enforcement officer, forensic examiner, prosecutor and other community agency personnel.

2. The dynamics of rape

i. Definitions of sexual violence.
ii. Rape myths and facts.
iii. Rape trauma syndrome.
iv. Post-traumatic stress disorder.

3. Sexual assault forensic examination

Note: this module is only necessary for physicians and nurses who will be performing forensic examinations.

i. Communication skills.
ii. Forensic and health history taking.
iii. Normal anatomy and physiology.
iv. Normal human sexual response.

v. Injury assessment and identification.
vi. Detailed genital examination (including use of the colposcope where available).
vii. Proper forensic evidence collection.
viii. Preservation and Chain of Custody.
ix. Documentation.

4. Patient management

i. Injury treatment.
ii. Crisis intervention.
iii. Screening for, and treatment of, sexually transmitted infections (STIs).
iv. Pregnancy screening and prophylaxis.
v. Discharge planning issues.
vi. Referrals.

5. The criminal justice system

Note: this module is only necessary for physicians and nurses who will be performing forensic examinations.

i. Laws regarding sexual violence and evidence collection (all personnel working with victims of sexual violence should have knowledge of local, regional, state and federal statutes and requirements in this field).
ii. Roles of courtroom personnel.
iii. Prosecution and defence strategies.
iv. The criminal justice process.
v. Courtroom testimony.

6. Ethical issues

i. Informed consent.
ii. Confidentiality.
iii. Reporting issues.
iv. Personal values and beliefs.

7. Programme evaluation

Clinical practicum

The clinical practicum is only necessary for physicians and nurses who will be performing forensic examinations. If at all possible a practicum should form part of the core curriculum in order for the physician or nurse to reach a minimum level of competency. Practicum students should be supervised by a specially trained, experienced sexual assault forensic examiner.

As part of the clinical practicum students should:

i. Perform detailed genital inspections (this can be done in a family planning clinic, obstetric or gynaecological clinic).
i. Conduct speculum and bi-manual examinations.
ii. Learn how to use the colposcope (if available) and other equipment.
iii. Observe and perform sexual assault forensic examinations under the

supervision of an experienced examiner (on average, it takes approximately 20 examinations to reach proficiency).

iv. Observe courtroom proceedings of rape trials if possible and where permitted.

Optional curriculum

The following modules and practical experience may be added to the core curriculum:

1. Forensic photography.
2. Observation and tour of a police crime laboratory if permitted.
3. Ride-along with members of law enforcement agencies where permitted.
4. Visits to rape crisis programmes and other community agencies.

By the end of the training programme, health professionals should be able to:

— work as a member of a multidisciplinary team;
— interview clients;
— initiate crisis intervention strategies;
— perform sexual assault forensic examinations;
— testify in court, if necessary, regarding examination findings;
— manage STIs and pregnancy testing and prophylaxis;
— treat injuries (as appropriate for level of professional ability and training);
— maintain patient confidentiality;
— ensure a high quality level of care through on-going programme evaluations.

Other programmes

A range of short, informal courses, conference workshops and university programmes are available which provide opportunities for health workers to develop their knowledge and skills in the field of service provision to sexual violence victims.

Details of programmes on offer can usually be found in relevant scientific journals, for example, the *Journal of clinical forensic medicine* or via the Internet. Two websites that are particularly helpful in this respect are:

— http://www.apsweb.org.uk;
— http://www.vifp.monash.edu.au/education/courses/grad_dip.html (provides details of the Monash University Postgraduate Program in Forensic Medicine).

References

1. *Evaluation and management of the sexually assaulted or sexually abused patient*. Dallas, TX, American College of Emergency Physicians, 1999.
2. *Sexual assault nurse examiner education guidelines*. Pitman, NJ, International Association of Forensic Nurses, 1997.

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