



MINISTRY OF HEALTH

**NATIONAL GUIDELINES ON SEXUALLY
TRANSMITTED INFECTIONS (STI)
AND REPRODUCTIVE TRACT INFECTIONS
(RTI) CASE MANAGEMENT**



2010


Preface

The prevalence of sexually transmitted infections is still high among high-risk population groups such as entertainment workers and men who have sex with men (MSM) even though the prevalence of HIV decreased to 0.9% in 2006 among the general population aged 15 to 49. There are many factors that influence this issue including the management of sexually transmitted infections and reproductive tract infections (STIs/RTIs).

In order to improve the quality of STI/RTI care and treatment in Cambodia, the National Center for HIV/AIDS, Dermatology and STIs in close collaboration with other health institutions and non-governmental organizations (NGOs) has reviewed and revised the existing national guidelines on STI/RTI case management. It is updated to respond to the current situation of STI/RTI care and treatment service based on laboratory approach. Moreover, some new topics are included in the revised national guidelines such as rare STIs and skin diseases that can be confused with STIs, STI case management for vulnerable groups (men who have sex with men, pregnant women and newborns, victims of sexual violence, etc.), endogenous infections caused by unhygienic or inappropriate genital hygiene and iatrogenic infections.

The Ministry of Health would like to acknowledge all members of STI/RTI technical working group for their valuable contribution to review and revise this guideline and strongly believes that this tool will improve and broaden the knowledge and skill of health care providers who are working in STI/RTI care and treatment and therefore improve the quality of health care services in Cambodia.

Phnom Penh,18 January....., 2010

F. Minister of Health 




Prof. ENG HUOT
SECRETARY OF STATE

Acknowledgement

The National Center for HIV/AIDS, Dermatology and STIs (NCHADS) would like to acknowledge all members of STI/RTI Technical Working Group from NCHADS, National Maternal and Child Health Center (NMCHC), RHAC, RACHA, FHI, PSF, PSI, MEC, Marie Stopes, US-CDC, UNFPA, WHO and ITM for their valuable contribution to review and revise the national guidelines on STI/RTI case management to be adapted to the current situation of STI/RTI care and treatment service based on laboratory approach in the existing health facilities.

This national guideline establishes clear standard and provide useful reference document for provision of STI/RTI prevention and care.

Phnom Penh, 18 January, 2010



[Handwritten signature]

Dr. MEAN CHHI VUN

TABLE OF CONTENTS

| | <i>Page</i> |
|---|-------------|
| Module 1 Basic of Sexually Transmitted Infections (STIs) and Reproductive Tract Infections (RTIs) | 1 |
| Module 2 Clinical and Laboratory Examination Skill for STI/RTI Case Management | 27 |
| • History-taking and examination | 28 |
| • Clinical examination | 43 |
| • Specimen collection | 63 |
| Module 3 Diagnosis and Treatment of STIs/RTIs | 67 |
| • Syndromic Management of STIs | 68 |
| • Urethral discharge (UD) | 71 |
| • Genital ulcer disease (GUD) | 77 |
| • Vaginal discharge (VD) | 92 |
| • Pelvic inflammatory disease (PID) | 113 |
| • Proctitis, Enteritis and Proctocolitis | 117 |
| • Scrotal swelling | 124 |
| • Inguinal bubo | 127 |
| • Neonatal conjunctivitis | 130 |
| • Genital warts | 132 |
| • Rare STIs with cutaneous infestations | 135 |
| • Non-STI genital lesions | 140 |
| Module 4 Educating and Counseling the Patients | 149 |
| Module 5 Partner Management | 179 |
| Module 6 STI/RTI Prevention and Care for Vulnerable Peoples | 195 |
| • Promoting prevention of STI/RTI and use of services | 196 |
| • Sex workers and others with many sexual partners | 201 |
| • STI/RTI management on pregnant women and newborns | 202 |

| | |
|--|-----|
| • Management of asymptomatic STIs/RTIs | 206 |
| • Sexual violence and STIs/RTIs | 212 |
| • STI/RTI care and treatment for people living with HIV/AIDS | 217 |
| Module 7 Monitoring and Reporting on STI/RTI Case Management | 223 |
| • Checklist for monitoring and Supervision and STI clinic | 227 |
| • Quarterly report of STIs/RTIs | 250 |



**National Guidelines on Sexually Transmitted Infections (STI)
and Reproductive Tract Infections (RTI) Case Management**

MODULE 1

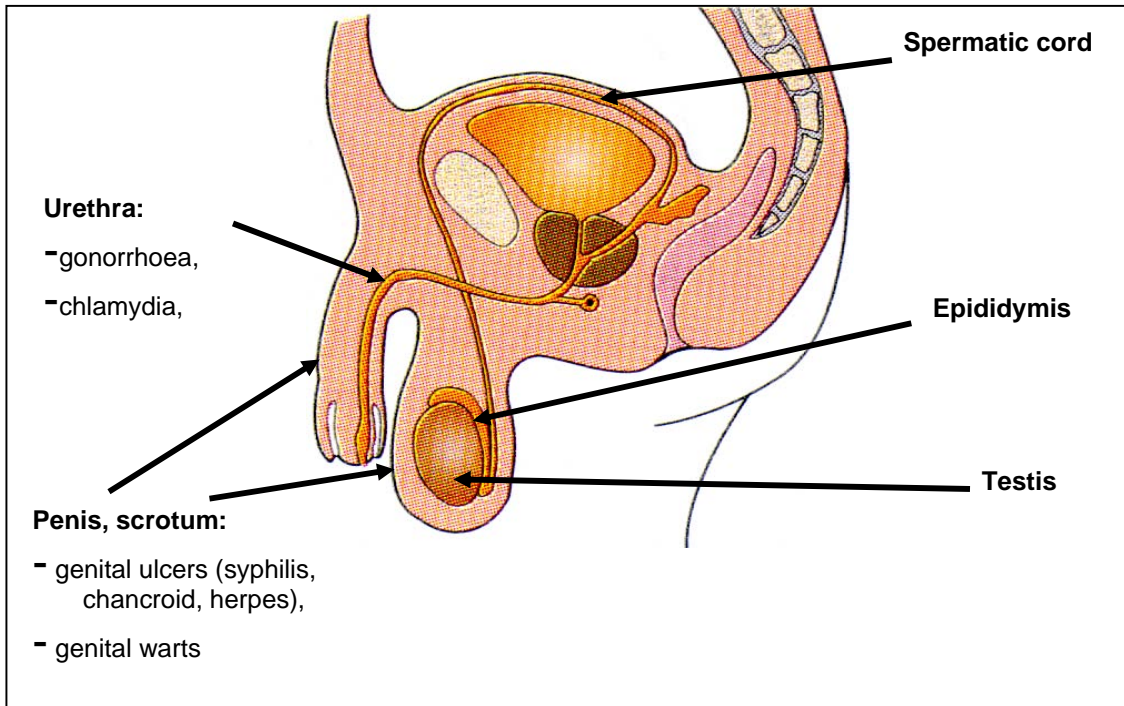
**BASIC OF
SEXUALLY TRANSMITTED
INFECTIONS
AND REPRODUCTIVE TRACT
INFECTIONS**

1) WHAT ARE RTIs?

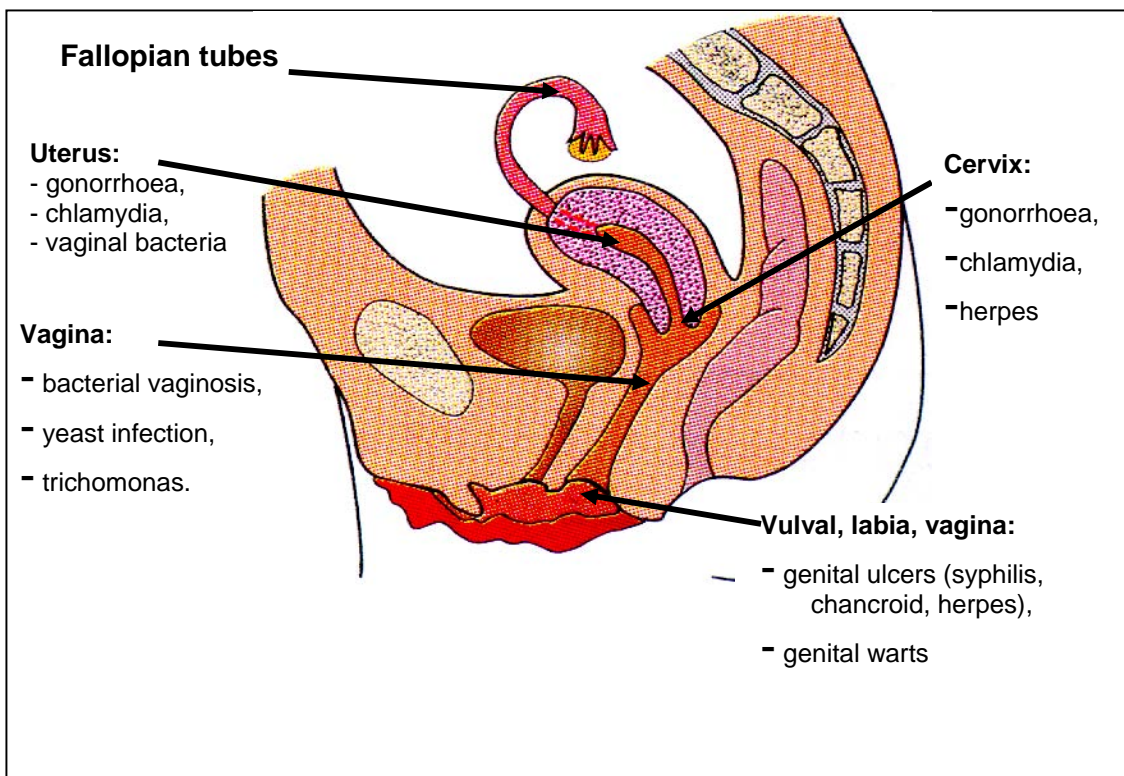
Reproductive tract infections are infections of the genital tract. They affect both women and men. Some RTIs (such as syphilis and gonorrhoea) are *sexually transmitted*, but many are not. In women, overgrowth of *endogenous* microorganisms normally found in the vagina may cause RTI (yeast infection, bacterial vaginosis). Medical interventions may provoke *iatrogenic* infection in several ways-endogenous organisms from the vagina or sexually transmitted organisms in the cervix may be pushed during a transcervical procedure into the upper genital tract and cause serious infection of the uterus, fallopian tubes and other pelvic organs. Organisms from outside the body can also be introduced into the upper genital tract during medical procedures if infection control is poor. In men, sexually transmitted infections are much more common than endogenous or iatrogenic infections.

Types of STI/RTI

| Where they come from | | How they spread | Common examples |
|---------------------------------|--|--|---|
| Endogenous infections | Organisms normally found in vagina | Usually not spread from person to person, but overgrowth can lead to symptoms | Yeast infection, bacterial vaginosis |
| Sexually transmitted infections | Sexual partners with STI | Sexual contact with infected partner | Gonorrhoea, chlamydia, Syphilis, chancroid, Trichomoniasis, genital Herpes, genital warts, HIV |
| Iatrogenic infections | Inside or outside the body: Endogenous (vagina) STI (cervix or vagina) Contamination from outside | By medical procedures or following examination or intervention during pregnancy, childbirth, the postpartum period or in family planning (e.g., IUD insertion) and gynaecology settings. Infection may be pushed through the cervix into the upper genital tract and cause serious infection of the uterus, fallopian tubes and other pelvic organs. Contaminated needles or other instruments, e.g. uterine sounds, may transmit infection if infection control is poor. | Pelvic inflammatory disease (PID) following abortion or other transcervical procedure. Also, many infectious complications of pregnancy and postpartum period. |



Male reproductive tract



Female reproductive tract

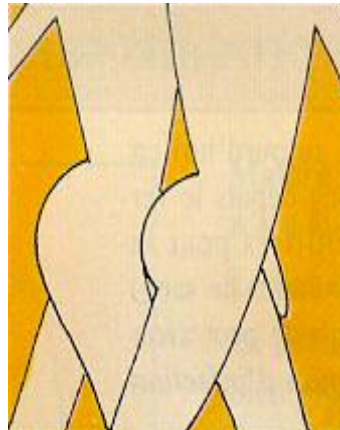
2) STI TRANSMISSION MODES

2.1 Sexual transmission

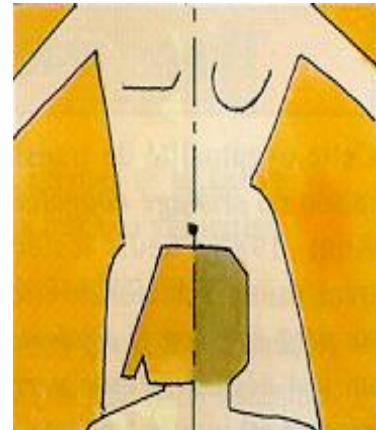
The most common mode of transmission of STI is *through unprotected penetrative sexual intercourse* (vaginal or anal).



Vaginal sex



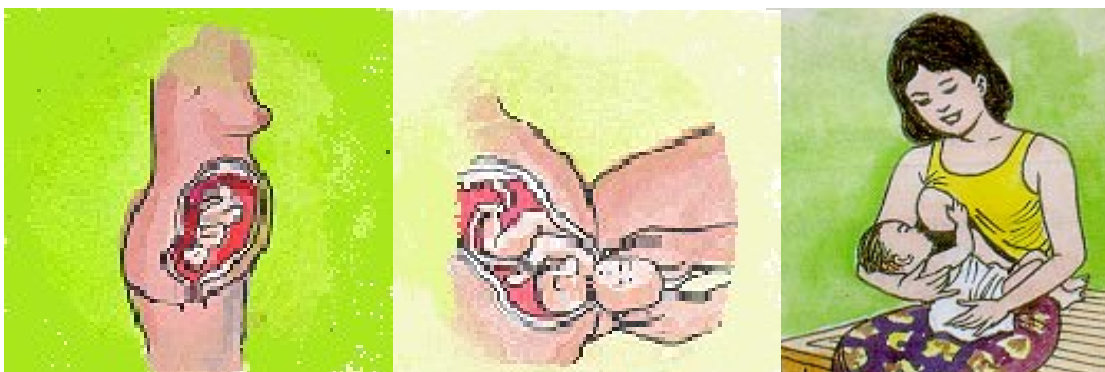
Anal sex



Oral sex

Other, modes of transmission include:

2.2 Mother-to-child transmission



- during pregnancy (e.g. HIV and syphilis)
- at delivery (e.g. gonorrhoea, chlamydia and HIV)
- after birth :
 - through breast milk (e.g. HIV)

2.3 Blood transmission

Unsafe (unsterile) use of needles or injections or other contact with blood or blood-products (e.g. syphilis, HIV and hepatitis).



NB:

It is important to remember that the human immunodeficiency virus (HIV) is transmitted in the same ways as any other STIs.

3) WHAT FACTORS INCREASE THE RISK OF TRANSMISSION?

Not all acts of unprotected sexual intercourse result in the transmission of an STI from an infected person to a partner. Whether or not a person will be infected depends on many factors, both biological and behavioural.

3.1 Biological factors

Certain biological factors influence the transmission of STI. They are age, gender, immune status of the host and the virulence of the organism.

3.1.1 Age

The vaginal mucosa and cervical tissue in young women is immature and makes them more vulnerable to STI than older women. This is due to cervical ectopy, a normal condition for young women, when cervical surface cells more readily allow infections to occur. Young women are especially at risk in cultures where they marry or become sexually active during early adolescence. On average, women become infected at a younger age than men.

3.1.2 Gender

Infections enter the body most easily through a mucosal surface such as the lining of the vagina. Since the mucosal surface that comes into contact with the infective agent is much greater in women than in men, women can be more easily infected than men.

3.1.3 Immune status

The immune status of the host and virulence of the infective agent affect transmission of STI. As we will detail later in this module, certain STIs increase the risk of transmission of HIV – itself a sexually transmitted infection. HIV, in its turn, facilitates the transmission of some STIs and worsens the complications of STI by weakening the immune system.

3.2 Behavioural factors

Many behavioural factors may affect the chance of getting an STI. Such behaviours are known as ‘risky’. Risky behaviours include:

3.2.1 Personal sexual behaviours

- changing sexual partners frequently
- having more than one sexual partner
- having sex with ‘casual’ partners, sex-workers or their clients:
- recent or frequent change of sexual partner, having more than one sexual partner or having sex with sex workers or their clients makes it more likely that a person will come into contact with someone who has an STI
- having unprotected penetrative sexual intercourse in a situation where either partner has an infection
- having previous STI in the last year:
- people who have had an STI in the last year are at risk of getting infected again if they have not been able to change their sexual behaviour.

3.2.2 Social factors

- A number of social factors link both gender and behavioural issues and may affect a person’s risk of getting an STI:
- in most cultures women have very little power over sexual practices and choices, such as use of condoms
- women tend to be economically dependent on their male partners and are therefore more likely to tolerate men’s risky behaviour of multiple sexual partners, thus putting them at risk of infections
- sexual violence tends to be directed more towards women by men, making it difficult for women to discuss STI with their male counterparts
- in some societies the girl-child tends to be married off to an adult male at a very young age, thus exposing the girl to infections
- in some societies a permissive attitude is taken towards men allowing
- them to have more than one sexual partner.

3.2.3 Other personal behaviors associated with risk

- skin-piercing; this refers to a wide range of practices including the use of unsterile needles to give injections or tattoos, scarification or body piercing and circumcision using shared knives
- use of alcohol or other drugs before or during sex; alcohol or drug use may negatively affect condom use

- alcohol may diminish the perception of risk, resulting in not using a condom; or if a condom is used it may not be used correctly.

3.2.4 The behaviour of the partner(s)

- sex with others
- has an STI
- is HIV-positive
- injects drugs
- male partner has sex with other men.

A partner with one or more of these behaviours is more exposed to STIs, and in turn is more likely to transmit an STI.



4) PROTECTIVE BEHAVIOUR

Protective behaviour reduces the risk of becoming infected with an STD. Condom use reduces the risk of STD infection by preventing contact with vaginal fluids, semen or blood. Used properly, condoms are up to 95% effective at preventing the transmission of STDs. Sexual practices such as penetrative vaginal and anal intercourse are high risk, so practices which avoid the exchange of bodily fluids, such as mutual masturbation, are of considerably lower risk.

5) WHICH POPULATION GROUPS ARE PARTICULARLY VULNERABLE?

In most countries some groups of people are particularly vulnerable to STI. This may be because they are exposed to infected partners more frequently, or because they are more susceptible to getting infected each time they are exposed. Such groups include:

- sexually active teenage girls
- sex workers and their clients
- men or women who have multiple sexual partners; men or women whose jobs separate them from their regular sex partners for long periods of time, such as long-

distance drivers, soldiers, and migrant workers. For various reasons, these people may hesitate to go to health facilities for treatment. Special effort may be necessary to reach them and make services acceptable to them.

6) COMPLICATIONS OF STI

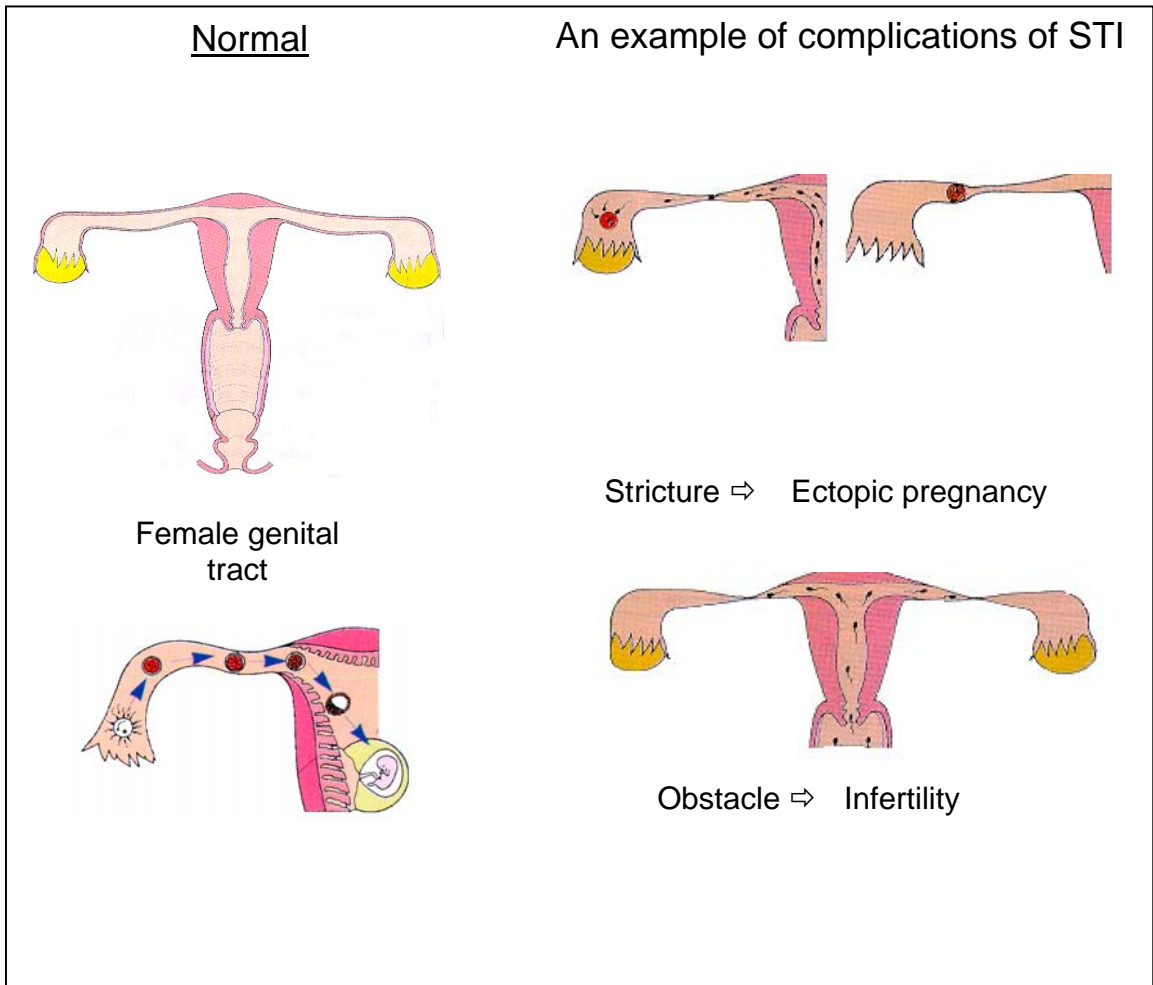
Sexually transmitted infections are of public health concern not only because of their high prevalence worldwide, but also because of their potential to cause serious and permanent complications in infected people who are not treated in a timely and effective way. In addition they are known to facilitate HIV. A UNAIDS Technical Update in May 1998 states that: *Both symptomatic and asymptomatic infections can lead to the development of serious complications. The most serious complications and sequelae (long-term consequences) of untreated STI tend to be in women and newborn babies. These can include cervical cancer, pelvic inflammatory disease (salpingitis), chronic pelvic pain, fetal wastage, ectopic pregnancy and related maternal mortality. Chlamydial infections and gonorrhoea are important causes of infertility, particularly in women, with far-reaching social consequences. Chlamydial infection is an important cause of pneumonia in infants. Neonatal gonococcal infections of the eyes can lead to blindness. Congenital syphilis is an important and significant cause of infant morbidity and mortality. In adults, syphilis can cause serious cardiac, neurological and other consequences, which can ultimately be fatal.*

6.1 Women

All the following complications can be avoided if the correct treatment is provided before they develop. Pelvic inflammatory disease (PID) is inflammation of the uterus, fallopian tubes and ovaries. Sometimes PID spreads throughout the lower abdomen. The main causes of pelvic inflammatory disease in women are gonorrhoea and chlamydia. The pain from PID is often the first symptom that women notice. If the fallopian tubes are already damaged when the women starts to feel pain, this damage is irreversible.

Because PID permanently scars and narrows the fallopian tubes, it increases the risk of ectopic pregnancy — a condition that can be fatal to women. If the pregnancy implants in the fallopian tube, the tube can rupture, causing extensive haemorrhage. Ectopic pregnancies cause an estimated 1% to 5% of all maternal deaths.

Gonorrhoea and chlamydia can also cause eye infections and pneumonia in the newborn. A syphilis infection during pregnancy can spread through the placenta and infect the fetus. Up to 40% of syphilitic pregnancies end in spontaneous abortion, stillbirth, or perinatal death. This is particularly serious when the maternal syphilis infection is untreated during the first 20 weeks of pregnancy.



6.2 Men

Gonorrhoea and chlamydia can lead to serious complications in men. An infection can spread from the urethra (where it is known as urethritis) to the epididymis (where it is known as epididymitis). This can cause urethral stricture and infertility.

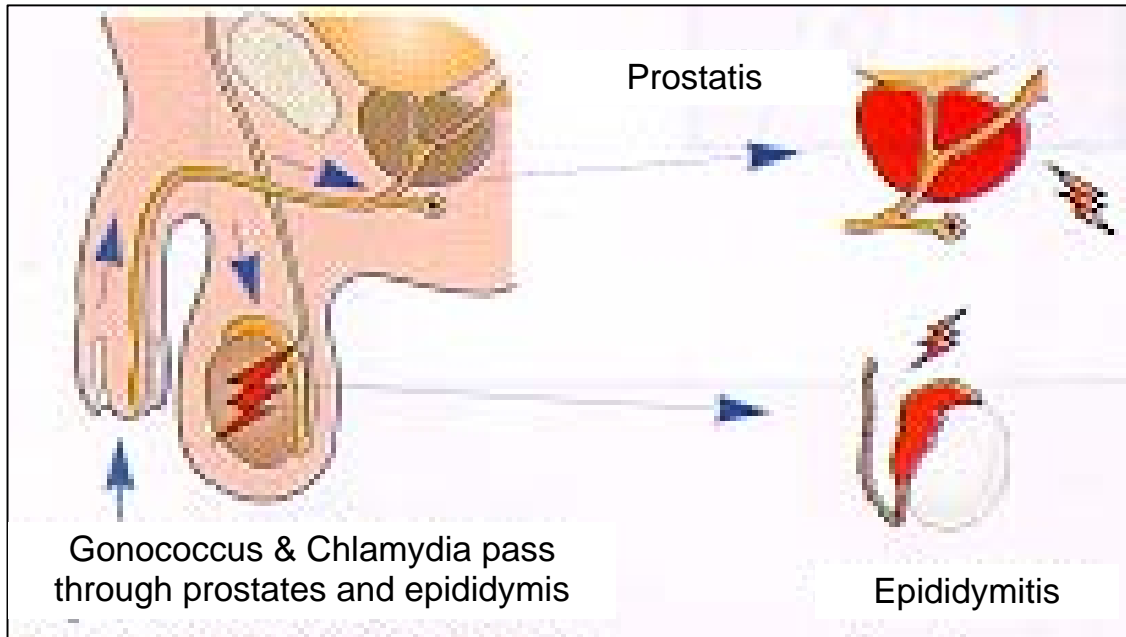
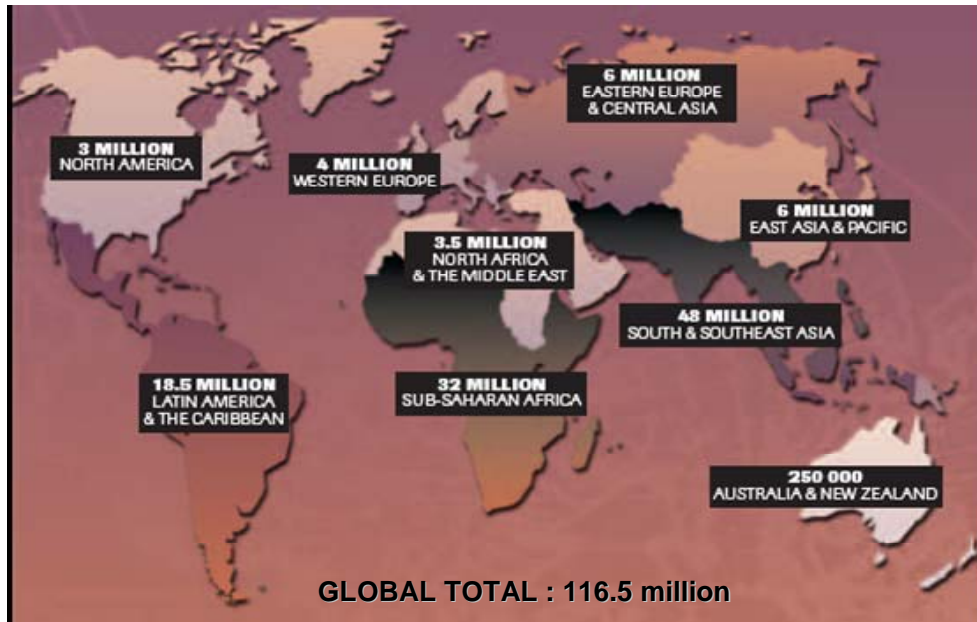


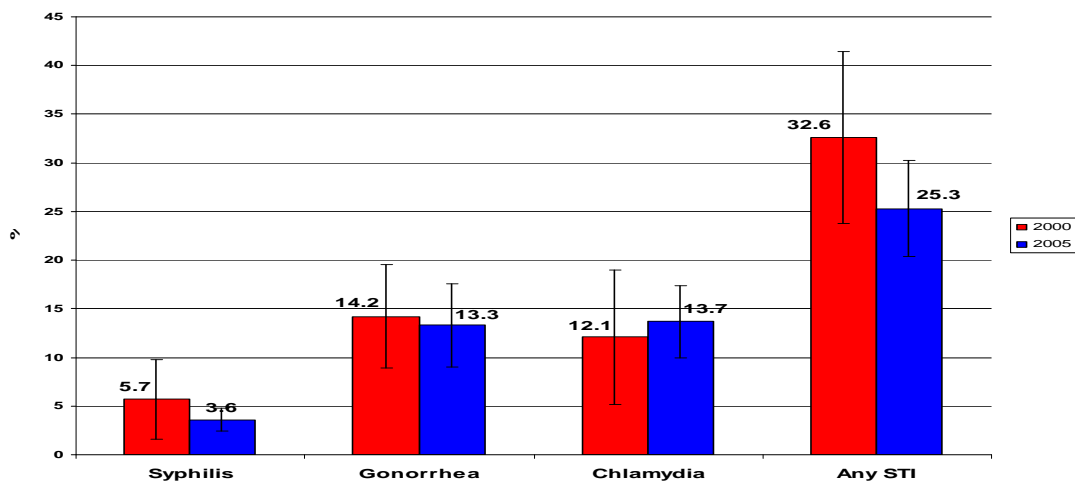
Table 1: Complications that may result from STI

| <i>Cause</i> | <i>Complication</i> |
|---|---|
| Gonococcal and chlamydial infection | Infertility in men and women Epididymitis Ectopic pregnancy due to tubal damage |
| Gonorrhoea | Blindness in infants |
| Gonococcal, chlamydial and anaerobic bacterial infections | Pelvic and generalized peritonitis |
| Acquired syphilis | Permanent brain and heart disease |
| Congenital syphilis | Extensive organ and tissue destruction in children |
| Human papilloma virus | Genital cancer |

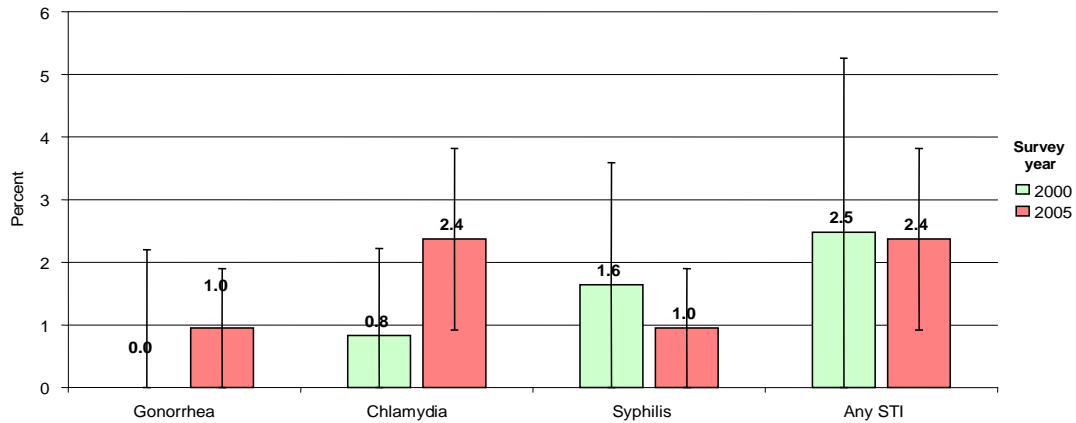
Estimated prevalence of curable STIs among adults in the world, 1999



Comparison of STI prevalence among FSW in Cambodia by survey year

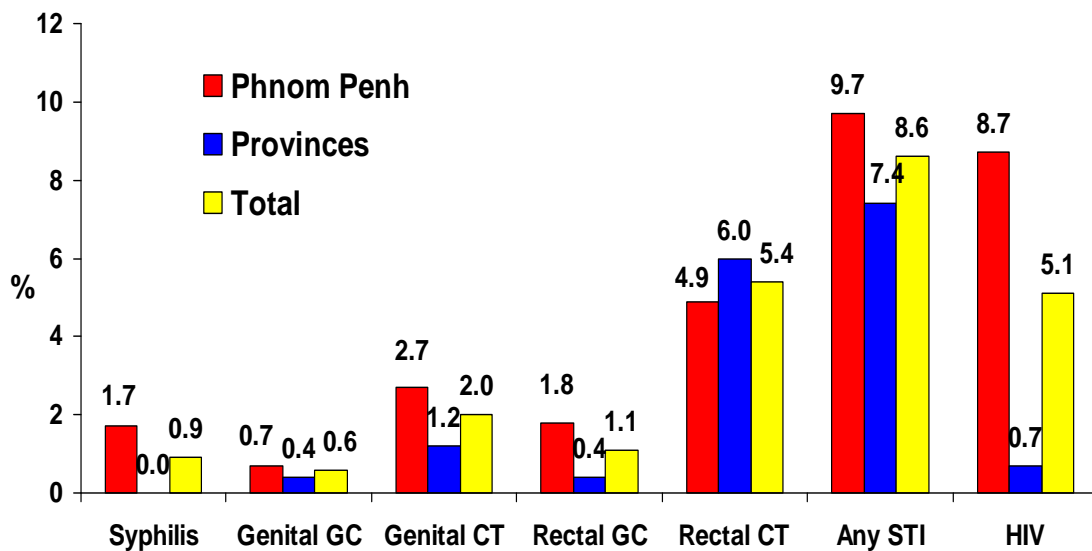


Comparison of STI prevalence among police in Cambodia by survey year



For purposes of comparison, provinces include: Battambang, Kampong Cham, Sihanouk Ville, Banteay Meanchey and Phnom Penh.

STI prevalence among MSM by survey site in 2005



7) THE LINK BETWEEN STI AND HIV/AIDS

We mentioned earlier in this module that certain STIs facilitate the spread of HIV. In fact, the interrelationship between STI and HIV is more complex, in that:

- certain STIs facilitate the transmission of HIV
- the presence of HIV can make people more susceptible to the acquisition of STIs
- the presence of HIV increases the severity of some STIs and their resistance to treatment.

7.1 Which STIs seem to facilitate the transmission of HIV?

A person with open sores in the genital area is much more likely both to contract and to transmit HIV. Chancroid and syphilis are the main bacterial causes of sores: if promptly diagnosed and treated, these links can be reduced. Genital herpes also facilitates HIV transmission: *“There is evidence that genital herpes, an incurable viral infection in which patients have recurrent genital ulcers, may play a more important part than previously thought... In high-income countries, genital herpes – infection with the herpes simplex virus-2 (HSV-2) – is the leading cause of genital ulcers, though rates are low. HSV-2 is now assuming that position in sub-Saharan Africa too... An ulcer in the genital area provides an ‘open door’ through which HIV can easily pass. Unfortunately, HSV-2 is lifelong and incurable...The best way to deal with the exponentially rising risks of HIV and HSV-2 infection is to increase efforts to prevent them both, particularly by increasing condom use.”* Report on the Global HIV/AIDS Epidemic, (UNAIDS, Geneva, June 2000, p. 71-2)

Chlamydia, gonorrhoea and trichomoniasis can also facilitate the transmission of HIV. This may be for one or both of two reasons:

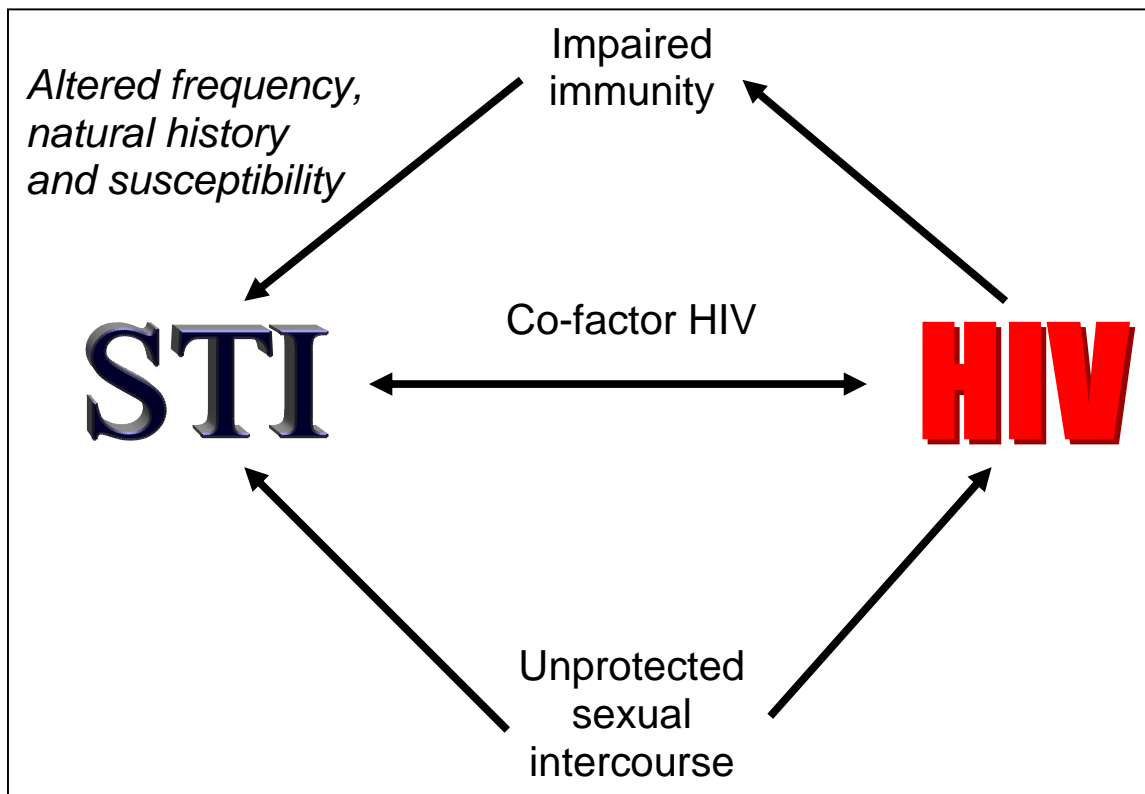
- these non-ulcerative diseases stimulate the body’s immune system to increase the number of white blood cells, which are both targets and sources of HIV
- genital inflammation associated with these STIs can cause microscopic cuts in genital tissues, creating potential sites where HIV can enter the body.

7.2 HIV makes infection with other STIs more likely

It is also true that people infected with HIV are more vulnerable to getting multiple infections. This is because changes in their bodies make them more vulnerable to infection in general.

7.3 HIV and increased severity of STI and resistance to treatment

“An additional relationship between HIV and other STI... is the alteration of the natural history of an STI in an individual with coexistent immuno-deficiency associated with HIV. The severity of the manifestations may be increased, infectiveness prolonged and increased, and the response to conventional regimens reduced.”

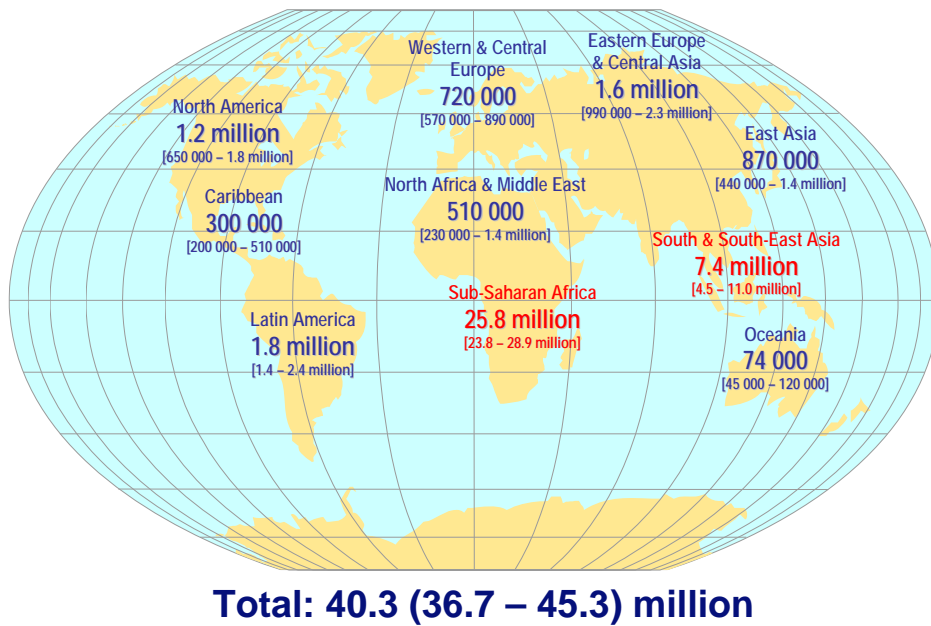


The interrelationship of STI and HIV-infection

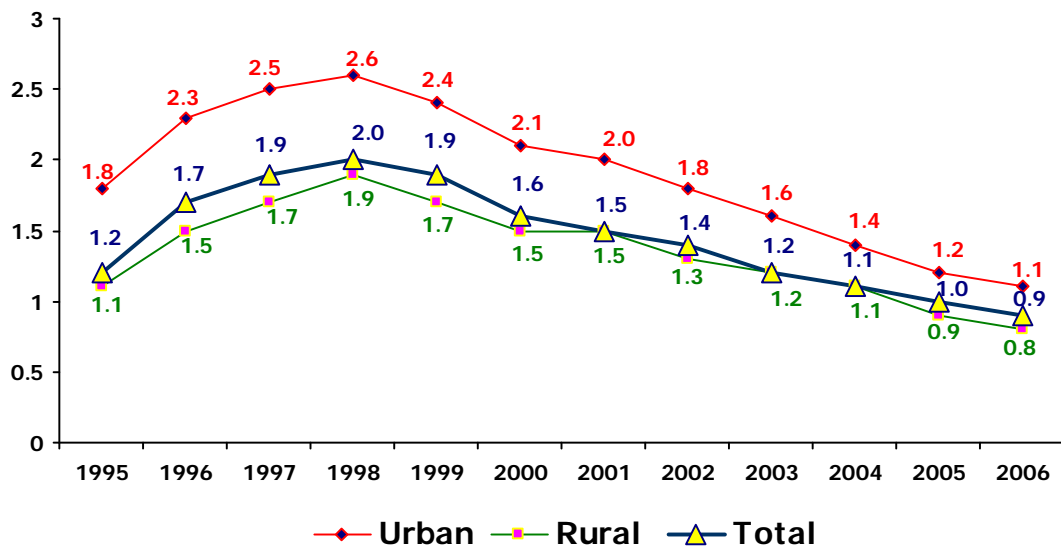
[Sexually Transmitted Diseases: Policies and Principles for Prevention and Care, UNAIDS/WHO 1999]

The extra and obvious link between STI and HIV is behavioural: unprotected sexual behaviour exposes people to both HIV and other STIs. Equally, the consistent use of condoms can PREVENT both kinds of infection.

Adults and children estimated to be living with HIV as of end 2005



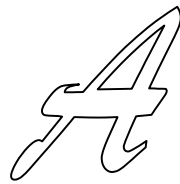
HIV Prevalence Among Adult population 15-49, in Cambodia between 1995 and 2006



8) HOW TO PREVENT STI

The best approach to preventing STI is to avoid exposure. At this first level of prevention, the likelihood of being exposed to STI can be reduced by:

- delaying sexual activity (for adolescents);
- decreasing the number of sex partners;
- using condoms correctly and consistently.



Abstinence



Be faithful



Condom use

STI prevention involves **prompt recognition and effective treatment of STIs** when they do occur. This not only reduces the probability of complications for the individual but also prevents new infections in the community. The sooner an STI is cured, the less chance it will be transmitted to other people.

8.1 Delaying Sexual Activity

Adolescents can avoid STI and pregnancy, at a time when they are particularly vulnerable, by delaying sexual activity until they are older. Support for delaying sex is perhaps most important for young girls, who may face severe social and health consequences if they become pregnant or develop an STI. The bodies of adolescent girls are particularly vulnerable to cervical infections that can lead to pelvic inflammatory disease, infertility and ectopic pregnancy. Adolescents should know that they can get support and confidential information on methods—including condom use—for preventing pregnancy and STI when they decide to become sexually active.

8.2 Decreasing The Number Of Sex Partners

Limiting the number of sex partners can help reduce exposure to STI. For example, people in mutually monogamous relationships (where both partners have no other sex partners) have no risk of STI if both are free of infection. Many monogamous women with only one lifetime sex partner, however, develop an STI—their risk of infection comes from their partner’s behaviour and not their own. Sexual abstinence is another way to avoid risk of STI (although other RTIs are still possible).

Many people need strategies other than monogamy or abstinence at some point in their lives. Monogamous relationships do not provide protection from STI when they follow one another in rapid succession (“serial monogamy”). Couples who are separated from each other for periods of time may also require other strategies. Men and women whose jobs involve travel—migrant workers, vendors, truck drivers, soldiers—are more likely to have multiple partners and to return home with an STI. Whatever the circumstances,

both women and men with multiple partners or whose partners have multiple partners—need reliable protection from STI.

8.3 Correct And Consistent Use Of Condoms

Condoms are the most reliable method available for situations where people want to protect themselves or their partner from any risk of STI. Used correctly, they form a barrier that keeps out even the smallest bacteria and viruses.

8.3.1 Male condom

Male condom made of latex are widely available, inexpensive and highly effective. Because they are easy to carry, protection can be available at any time. To use a condom correctly:

- Put on the condom before any penetrative intercourse
- Withdraw the penis right after ejaculation (while the penis is still erect) to avoid the condom slipping off inside the vagina.
- Put on a new condom for each new act of intercourse.

STI can still occur despite condom use, however. Genital ulcers or warts can be transmitted through contact with parts of the body not covered by the condom. More commonly, though, people get an STI because they misuse condoms, or use them inconsistently. When handled or stored incorrectly—in wallets or in a hot place, for example—or if used with oil-based lubricants, condoms may fail. Condom breakage is usually due to incorrect use, not to defects in the device.

Most importantly, condoms can only protect against STI when they are used consistently and correctly. **When used correctly during every act of intercourse, condoms can greatly reduce the risks of both pregnancy and STI (dual protection), including HIV infection.** Chapter 4 includes advice on counseling patients on how to negotiate condom use with partners.



8.3.2 Female condom

It is becoming more widely available and have the advantage for women that their use is more in their control than use of male condoms. One type of female condom is currently on the market, under various names. It is made of polyurethane plastic, which is sturdier



than latex. Only one size is made and fitting by a health care provider is not required. Unlike latex male condoms, which are weakened by oil-based lubricants, the female condom may be used with any type of lubricant without its strength being affected. It is pre-lubricated, but users may add more lubricant.

Female condoms may offer a similar level of protection as male condoms, but they are more expensive. Some studies have shown that the female condom is acceptable to both women and their male partners. Despite its advantages, the female condom has some problems. The device protrudes from the vagina and thus requires the acceptance of the male partner. Also, it cannot be used at the same time as the male condom, which means it cannot provide backup protection if the male condom breaks or slips. Research into other female-controlled methods is under way. Microbicides (chemicals that kill RTI organisms) are being tested for their safety and effectiveness in protecting against STI and HIV, as are other barrier methods such as the diaphragm. None of these methods has yet been shown to provide protection equal to the male condom, however.

9) HOW TO PREVENT IATROGENIC INFECTIONS

As discussed in Chapter 1, many STI/RTI complications occur when sexually transmitted, endogenous or other organisms reach the upper genital tract. The most effective way to prevent STI/RTI complications, such as infertility and ectopic pregnancy, is to **prevent upper genital tract infections** from occurring (Table 1).

This involves:

- STI prevention and management
- Good antenatal care and safe delivery practices
- Safe performance of transcervical procedures

Good post-abortion care and management of complications

Interventions that reduce the spread of STIs/RTIs or prevent existing infection reaching the uterus are key to preventing complications. During most of the menstrual cycle, cervical mucus forms a thick barrier that is difficult for germs to penetrate. STIs such as gonorrhoea or chlamydia in the cervix may, however, spread to the uterus during menstruation or may be pushed in during trans-cervical procedures. Non-sexually-transmitted organisms from the vagina or from outside the body may also cause pelvic inflammatory disease if they are pushed into the uterus.

Table1 . Preventing upper genital tract infection, infertility and ectopic pregnancy

| Intervention | Methods to prevent infections and complications |
|---------------------------------------|---|
| STI prevention | Counsel on: <ul style="list-style-type: none">• delaying sexual activity• reducing numbers of partners• using condoms correctly and consistently |
| STI management | Early detection and treatment of STI |
| Safe delivery practices | Use aseptic technique Manage postpartum infection effectively |
| Safe trans-cervical procedures | Use aseptic technique Rule out infection prior to procedure |
| Post-abortion care | Use aseptic technique Manage post-abortion infection effectively |

9.1 Safe Performance of Trans-cervical Procedures

Infection can reach the uterus through medical procedures that pass instruments through the cervix (trans-cervical procedures). Manual vacuum aspiration, dilatation and curettage, insertion of an intrauterine device (IUD) and endometrial biopsy are examples of such procedures. The risk of infection following a trans-cervical procedure varies greatly depending on factors such as background STI prevalence, resource and capacity level, and conditions under which procedures are performed. In settings where prevalence of cervical infection is low, the risk of introducing infection to the upper genital tract is minimal. However, women who harbor pathogens such as *N. gonorrhoeae* or *C. trachomatis* in their cervix are at increased risk of upper genital tract infection after a

Trans-cervical procedure compared with uninfected women. Upper genital tract infection following trans-cervical procedures can be reduced by:

- using appropriate infection prevention procedures and aseptic techniques
- treating any existing cervical infection.

9.2 Reducing Risk of infections

9.2.1 Clinical practices

Appropriate infection prevention procedures and aseptic techniques provide protection against transmission of infection has seen below.

9.2.2 Infection prevention techniques for transcervical procedures

- Wash hands.
- Wear gloves, both for the procedure and when handling contaminated waste materials or used instruments.
- Decontaminate, clean and high-level disinfect all instruments (e.g. specula, tenacula, forceps, and uterine sound). High-level disinfection can be done by boiling instruments for 20 minutes in a container with a lid.
- Clean the cervix and vagina with antiseptic solution.
- Use “no touch” technique. This means avoiding contamination of the uterine sound or other instruments by inadvertently touching the vaginal wall or speculum blades.

10) HOW TO PREVENT ENDOGENOUS INFECTIONS

Yeast infection and bacterial vaginosis are common endogenous infections that can be easily treated but often recur. Health care providers should be aware that:

- pregnant women and women using oral contraceptives may get frequent yeast infections because of changes in vaginal acidity (pH);
- certain medical conditions—e.g. diabetes—may increase the risk of yeast infections as may long-term use of steroids. Less commonly, recurrent yeast infections may be a sign of a more serious illness that reduces immunity (such as long-term chronic illness or HIV infection). These should be considered only if there are other symptoms; yeast infection alone is common and usually easily prevented or treated. Health care providers can offer advice about some simple ways to prevent endogenous infection.
- Douching can disrupt the normal flora of the vagina and cause overgrowth of other microorganisms (bacterial vaginosis). Use of detergents, disinfectants, and vaginal cleaning or drying agents should be avoided. Cleaning the external genital area with soap and water is sufficient for hygiene.
- Antibiotics can also disrupt the normal vaginal flora and permit overgrowth of yeast. Women taking antibiotics—especially long courses of broad-spectrum antibiotics—may also need treatment for yeast infection.

11) WHAT CAN BE DONE TO CONTROL STI?

All STIs, including HIV, are preventable. Prevention can be primary or secondary:

- **primary prevention** aims to prevent people being infected with STIs or HIV
- **secondary prevention** is about the provision of treatment and care for infected people in order to avoid further transmission of infection to others.

11.1 Primary prevention

This is about adopting safer sexual behaviour and engaging only in safer sexual acts.

11.1.1 Safer sexual behaviour implies:

- abstinence from sexual activity altogether
- delaying the age of sexual debut
- lifelong mutual monogamy.

11.1.2 Safer sexual activity implies:

- engaging only in non-penetrative sex acts: mutual masturbation and rubbing of body parts
- engaging in penetrative sex acts only if condoms (male or female) are used. Penetrative sex acts include vaginal, oral and anal sex.

11.2 Secondary prevention

This may be achieved by:

- promoting STI care-seeking behaviour, through:
- public education campaigns
- providing non-stigmatizing and non-discriminatory health facilities
- providing quality STI care
- ensuring a continuous supply of highly effective drugs
- ensuring a continuous supply of condoms
- rapid and effective treatment of people with STIs:
- comprehensive case management of STI syndromes
- training of service providers in case management
- case finding:

- examining minimally symptomatic women attending clinics for maternal and child health and family planning
- partner notification and treatment
- education, investigation and treatment of targeted population groups who may have placed themselves at risk of infection, such as sex workers, long distance truck drivers, uniformed services, and young people, both in and out of school.

12) INTEGRATION OF STI SERVICES WITHIN PRIMARY CARE

In order to improve access, people with STIs should not need to attend a centre devoted to STI treatment. STI treatment should be available at all health facilities throughout the country. It is possible to integrate STI care within primary health care – primary care clinics, maternal, child health and family planning clinics – through the syndromic management of STIs. This means that service providers are trained to recognize STIs syndromically and then to offer their patients comprehensive care.

Managing sexually transmitted and reproductive tract infections (STI/RTI) within reproductive health settings (e.g. antenatal, family planning etc.) will require appropriate adaptation. Tools such as the Essential Care Practice Guides for RTI, family planning etc. should be consulted for this purpose.

THESE ARE THE SIX FEATURES OF COMPREHENSIVE CARE

- to make a correct diagnosis
- to provide correct antimicrobial therapy for the STI syndrome
- to educate on the nature of the infection, safer sexual behaviour, safe sex acts and risk reduction in order to prevent or reduce future risk taking behaviour
- to educate on treatment compliance
- to demonstrate the correct use of condoms and provision of condoms
- to advise on how the patient's partners may be treated and to issue a
- Partner Referral card for the patient to pass on to his/her partner(s).

13) APPROACHES TO STI/RTI DIAGNOSIS

This section will enable you to list a number of problems associated with classic approaches to treating patients with STI/RTIs. Health care providers generally use one of two approaches to STI/RTI diagnosis:

- *etiological diagnosis*: using laboratory tests to identify the causative agent
- *clinical diagnosis*: using clinical experience to identify the symptoms typical for a specific STI.

Etiological diagnosis is often regarded as the ideal approach in medicine and clinical diagnosis is the choice of resort when laboratory services are not available. However, in the diagnosis and treatment of STI, both classical approaches present a number of problems.

13.1 The etiological approach

Laboratory testing requires skilled personnel and consistent support and supplies, which are often not available. But even if they are available, is etiological diagnosis always appropriate?

- Treatment does not begin until the results are available, which usually requires patients to revisit the health centre. Infected individuals continue to transmit the infection to others and may be unwilling to return for follow-up.

- Testing facilities are not available at the primary health care centre, where many people with an STI first seek care.

- Laboratory diagnosis can confirm diagnosis if patients with STI are referred from primary health care centres. It is also important for syphilis case-finding in pregnant women, but is unreliable for diagnosis of some STIs, even when good resources are available: *“For instance, Haemophilus ducreyi, which causes chancroid, is a fastidious bacterium which cannot be easily cultured. Tests for Chlamydia trachomatis are expensive and the collection of specimens is invasive and unpleasant for both men and women. The diagnosis of primary syphilis requires a special microscope and training, and even in the best hands the spirochete may not be visualized... ..For these reasons... laboratory support should be confined to situations where it is essential for clinical or programmatic decisions.”*

13.2 Clinical Diagnosis

Using clinical diagnosis, the clinician treats STIs based on the clinical symptoms and his/her professional experience. However, different STIs cause similar symptoms, so the clinician may pick the wrong one to treat. Mixed infections are common and the clinician may diagnose only one of them. A patient with multiple infections needs to be treated for each of them. Failure to treat one infection may lead to the development of complications and the continued transmission of that STI.

13.3 The Key Features of Syndromic Case Management

The key features of syndromic case management are that it:

- is problem-oriented (it responds to the patient’s symptoms)
- is highly sensitive and does not miss mixed infections
- treats the patient at the *first* visit

- makes STI care more accessible as it can be implemented at primary health care level
- uses flow-charts that guide the health worker through logical steps
- provides opportunity and time for education and counselling.

14) FACTORS THAT INFLUENCE DELIVERY OF EFFECTIVE STD CARE

14.1 Treatment of partners

It is important to treat the sexual partners of STD patients to prevent the continued spread of infection, or reinfection. However, partners may not be treated for many reasons, including:

- the patient feels uncomfortable or unable to inform their sexual partner(s) about an STD infection;
- sexual partner(s) do not accept treatment or are unwilling to go to the health centre for treatment;
- tracing sexual partner(s) is too difficult; and
- the patient cannot identify their sexual partner(s), for instance, if the patient is a sex worker.

14.2 Management of STDs

In order to reduce the spread of STD infection, practical management strategies must take into account the many aspects of controlling STDs.

14.2.1 Early diagnosis

Early diagnosis and treatment helps to:

- reduce STD transmission from currently infected people to others; and
- reduce the chances of developing serious complications from the infection.

To achieve this, all patients with STDs need to be treated effectively during their first visit to a health facility. Ideally, this means that STD services should be available at all health facilities. In order for STD diagnosis and treatment activities to be most effective, health facilities need adequate supplies of the necessary drugs. Known sexual partners should be treated for STDs even if they are symptom-free, so patients need to be encouraged (and assisted, if appropriate) to inform sexual partners.

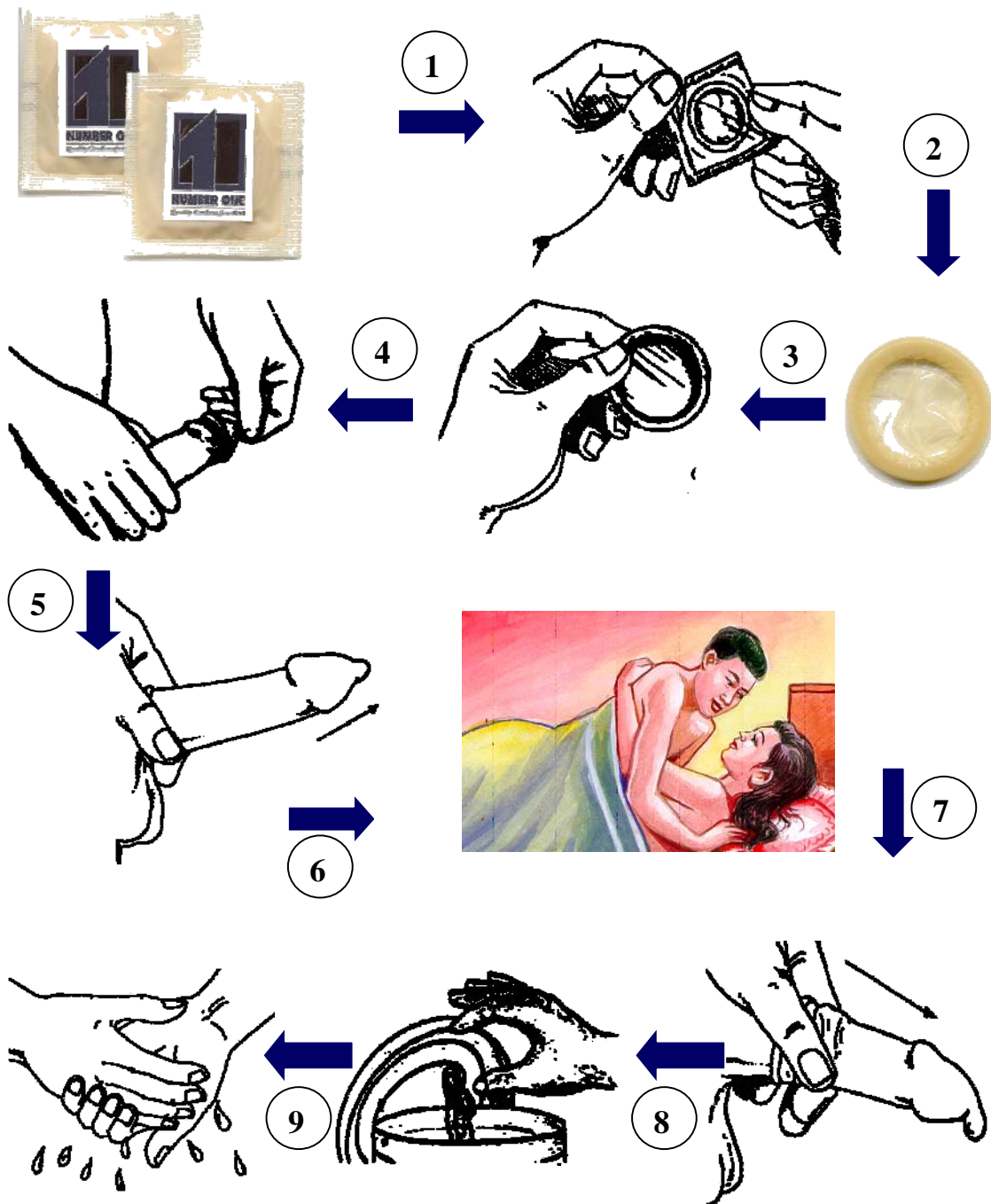
14.2.2 Education of patient and partner(s)

It is important to encourage people to adopt safer sex practices, and to help those who are at risk because of their partner's behaviour. The aims of education for STD patients are to:

- support a change in a person's behaviour so that he or she will be cured of their infection;
- avoid infecting others; and
- remain free of infection in the future.

14.2.3 Promotion of condom use

- If used correctly and consistently, condoms can help prevent the spread of STDs and HIV.



**National Guidelines on Sexually Transmitted Infections (STI)
and Reproductive Tract Infections (RTI) Case Management**

MODULE 2

**CLINICAL &
LABORATORY
EXAMINATION SKILL
FOR STI/RTI CASE
MANAGEMENT**

1) History-taking and Examination

History-taking and examination are an important part of the STI/RTI approach because they lead to diagnosis and treatment, help you to assess the patient's risk of transmitting or contracting an STD in the future and help you find out about sexual partners who may also be infected and need treatment.

1.1 The needs of the patient with STI

This section will enable you to:

- describe the possible needs of a patient with STI when visiting a health centre, including needs of the centre environment and the service provider
- consider the varying needs of patients of either sex and different ages.

1.1.1 The Three Aims of History-Taking and Examination are to:

- 1- Make an accurate and efficient STI/RTI diagnosis.
- 2- Define the patient's risk of transmitting or contracting STIs.
- 3- Find out about partners who may have been infected.

1.1.2 The patient's basic needs

The patient may be concerned or embarrassed, so it is important that the service provider and the environment set him or her at ease.

The environment:

Confidentiality and privacy are crucial: somewhere to talk where others cannot see or hear – and a particular need for patient confidentiality.

The service provider:

Perhaps most important of all, patients need to feel that the service provider understands and respects them and wants to listen. To do this, you need to develop a rapport with the patient and be non-judgmental.

1.2 Effective Face-To-Face Communication

Due to the fact that so much of the information you need is personal and sensitive, the patient may feel embarrassed or ashamed because of the stigma associated with STI/RTI, patients are often reluctant to talk about their condition... To make patients feel more comfortable during the history taking and examination, health care providers should be interested and sympathetic, not distracted or judgmental.

- Welcome your patient.
- Encourage your patient to talk.
- Look at your patient

- Listen to your patient.

Communication skills are particularly important for health care providers who treat patients with STI/RTI, as much of the information needed is sensitive or embarrassing and the patient may be ashamed to talk about it. Communication skills can be verbal or non-verbal, and are aimed at:

- establishing a rapport with the patient so that they feel comfortable talking about their problem; and
- obtaining as much relevant information as possible.

Good communication skills will help the patient to feel confident in the way you treat their problem.

Perhaps you have already thought about some of the difficulties involved with interviewing a patient with STD symptoms. Many people are already nervous about attending a family health clinic and health centre, these feeling can be even stronger for those who have symptoms in their genital area — for example, an ulcer or unusual discharge. How would you feel if you went to a family health clinic and health centre with such symptoms?

There are no right or wrong answers to this question. Some people will feel nervous, embarrassed, anxious, ashamed or even horrified. The strength of such feelings might depend on the patient's awareness of STDs or their beliefs about the cause of their symptoms, on their gender, age or social status, or even on whether or not they are familiar with the provider. The answers to this question could be as many and varied as the people who attend the health centre.

An important outcome of these anxious feelings is that people rarely present with the symptoms causing them the most concern. A patient with a genital ulcer or discharge will often complain of a headache or sore throat at first. Discovering the real symptoms depends on the skills, attitude and encouragement of the provider. The first step is to establish a good rapport with the patient. Once this is achieved, other verbal skills will help the provider to obtain all the information they need.

1.3 Communication Skills for Establishing Rapport

How can you establish a good rapport with a patient? Communication skills are the first ones you need. These include.

- Your verbal skills — the way you talk to the patient and ask questions, and
- Your non-verbal skills — how you behave towards the patient.

1.3.1 Verbal Skills

In this section, you need to gather a lot of information from each patient with STI/RTI symptoms. You will need to ask questions not only about the patient's symptoms and medical history, but also about his/her sexual history. You need to gather this information in a short time, so how can you best do this?

- Greet the patient
- Avoid common problems in verbal communication
- Ask ‘open’ and ‘closed’ question effectively
- Prepare your response to patient emotions

A. GREET THE PATIENT

The first step is to greet the patient in an appropriately friendly manner and introduce your self. Some of the other ways you can make the patient welcome are described below.

HOW TO GREET THE PATIENT

- Use a well coming tone of voice, smile.
- Introduce yourself.
- Offer the patient a seat
- Make eye contact if culturally appropriate.
- Encourage the patient to talk by asking questions.
- Nod when patient talks or say “mmm” or “tell me more”.
- Be respectful and understanding.

B. COMMON PROBLEMS IN VERBAL COMMUNICATION

There are several problems in verbal communication that occur often and that can make STI/RTI case management less effective. It is important to be aware of these problems so that you can avoid them as much as possible.

HOW TO AVOID COMMON PROBLEMS IN VERBAL COMMUNICATION

- Always be polite.
- Use word that the patient can understand easily.
- Make your questions clear.
- Ask one question at a time.
- Avoid leading question.
- Avoid moral judgments.
- Ask the patient’s permission to talk about sensitive topics.

When interviewing patients, always phrase your questions politely and be respectful. You should use words that the patient will understand easily. You will need to be careful using medical terms that may confuse the patient.

You should make your questions clear. This means the question should be specific enough so that the patient has a clear idea how to answer it. Another way to reduce confusion is to ask only one question at a time. Sometimes providers combine two questions into one because they feel rushed. This can be confusing if the patient misunderstands.

Another common problem is phrasing a question in such a way that it suggests a “right” answer. This is called a leading question and patients may answer in a certain way just because they want to agree with what they think is your view. Leading questions are sometimes hard to avoid but, wherever possible, you should let the patient’s answers reveal their own views.

The wording of questions should ideally be free of moral judgments. If an STI/RTI patient feels you are judging them, they may become less responsive and you won’t get all the information you need to treat them and their partners effectively. Educating for behavior change may also be more difficult.

Finally, you should always ask the patient’s permission to talk about sensitive topics. Asking questions about a medical history related to STI/RTI or about sexual behavior can be very sensitive. Introducing your questions by asking permission helps patients to feel they can trust you with this very private information.

C. ASKING OPEN AND CLOSED QUESTIONS

Obtaining a patient’s medical and sexual history means you must gather accurate information in a short time. You can ask two main sorts of question “open questions and closed questions”. Use ‘open’ and ‘closed’ questions effectively during the interview identify a number of extra verbal skills that will help you gather information effectively and deal with the patient’s emotions summarize the characteristics of good interviewing practice.

OPEN AND CLOSED QUESTIONS

Open questions- enable the patient to give a detailed reply or to keep talking.

Examples:

“what is troubling you?”

“what kind of medicines are you taking at the moment?”

Closed questions- ask a patient to answer in one word or short phrase, often with ‘yes’ or ‘no’.

Examples:

“Is the swelling painful?”

“Is your period late?”

“What is your age”.

Open-ended questions enable patients to explain something in their own words, and to say everything they think is important. This means that it is possible to gather much more information from one open question than from several closed ones. Also, because patients often have trouble talking about their own sexuality, open questions can help them to feel more in control and comfortable.

Closed questions, on the other hand, ask the patient to answer a precise question based on the service provider’s words. Closed questions are normally better saved for later in the interview, when you have won the patient’s confidence and are checking particular details.

To illustrate the difference between open and closed questions, contrast the two examples on the next page. Note how much information the service provider collects in each one.

Example 1: An interview with closed questions

Patient: “I have a pain in my tummy.”
Service provider: “I’m sorry to hear that. Where is the pain?”
Patient: “Here.”
Service provider: “Is the pain constant?”
Patient: “No.”
Service provider: “Does it feel tender?”
Patient: “Yes.”
Service provider: “When did the pain begin?”
Patient: “Last week.”

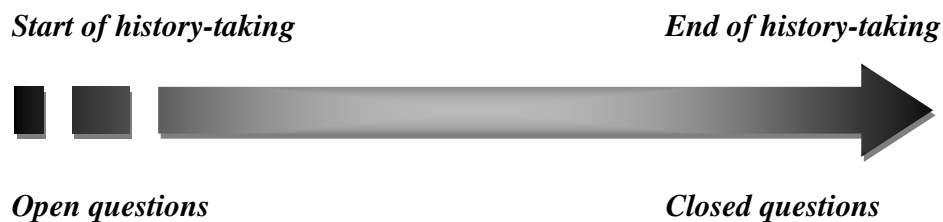
Example 2: An interview with open questions

Patient: “I have a pain in my tummy.”
Service provider: “I’m sorry to hear that. Tell me about this pain.”
Patient: “Well, it started a week ago. At first I just felt tender down here, but sometimes it begins to hurt a lot. It hurts when I sit down or stand up – it isn’t like my monthly pain at all.”

Service provider: “What else is troubling you?”
Patient: “Well, there is one other thing. There’s a funny kind of water that I don’t usually get. It doesn’t hurt but it’s embarrassing.”

In the second example, the provider gathers more information by using open questions. Experts in interviewing STI/RTI patients also suggest that providers may need to ask “Anything else?” several times. This is because some patients are so embarrassed that they sometimes describe other unrelated symptoms, such as a headache, before they are comfortable enough to describe an STD-related symptom. Other patients are not sure which symptoms are related to STD and which are not. Giving them a chance to describe a range of complaints can frequently reveal useful information.

D. GATHERING INFORMATION DURING HISTORY-TAKING



How can you use the two types of questions? Patients often have trouble revealing information about their own sexuality, so open questions are helpful at the beginning to help patients feel more comfortable. Generally, you will gather much more information from an open question than from a closed one. There is also some danger of missing important information if you use closed questions early in the interview. Once you have used open questions to understand the patient's problem as he or she sees it, closed questions may be very helpful to draw out specific details that you need to know.

1.3.2 Non-Verbal Skills

In this section, we concentrate on what we can do to help the patient relax at the start of the interview and how to use supportive non-verbal behaviour.

Non-verbal skills include how you behave with the patient and the physical surroundings of where you interview the patient.

- Provide the patient with privacy.
- Listen carefully to what the patient says.
- Sit if the patient is sitting and pay attention to how close you are to patient.

A. PROVIDE PRIVACY AND CONFIDENTIALITY

The key to effective non-verbal communication is to treat patients with respect. One of the principal ways this is done is by offering them privacy and confidentiality. Usually this means you make arrangements to use a quiet place for the interview, somewhere where you won't be disturbed. If it is not possible to interview patients inside an office, it can be helpful to use inexpensive barriers such as unattached walls, screens or curtains. You can also try to talk quietly while interviewing patients.

B. LISTEN CAREFULLY TO THE PATIENT

Patients are more responsive when providers show that they are listening. In many cultures, you can show your interest in what the patient is saying by leaning forward slightly towards him or her; you can also nod your head or comment occasionally to encourage them. Don't move about, write or interrupt while the patient is talking.

C. POSTURE

It can be very helpful to match the patient's posture — sit if the patient is sitting and stand when the patient stands. You should think about how near you can be to a patient while still being sensitive to their privacy. Physical proximity between people varies from culture to culture. You should position yourself as close to the patient as is culturally acceptable. It is better for the health care provider to be next to a table or desk rather than behind one.

These points are simple and yet they can make the difference between gaining or losing a patient's trust or confidence.

1.3.3 Other Verbal Communication Skills

A. SIX USEFUL SKILLS FOR EFFECTIVE VERBAL COMMUNICATION

- Facilitating
- Directing
- Summarizing and checking
- Empathizing
- Reassuring
- Expressing partnership

In addition to positive non-verbal behaviour and appropriate, respectful questioning, there are a number of additional skills which can be extremely useful when interviewing STIs patients. They can help you to deal supportively with the patient's emotions as well as to gather information effectively.

Facilitating : means using words, sounds or gestures to encourage patients to continue talking. Non-verbal facilitation includes nodding the head and raising the eyebrows as the patient is talking. The service provider can also use words, phrases or other sounds to encourage the patient to continue speaking.

Directing : helps patients to sort out ideas and give information in a sequence. It is a useful approach when a patient is confused and doesn't know where to begin, or when they are talking quickly and mixing up issues that they are worried about. Direction is also a good way to allow patients to share their concerns and worries more easily.

Summarizing : and checking allow you to verify that you have understood the patient correctly. To do this, you paraphrase what the patient has said, and ask if your summary is correct. Use this skill when the patient has mentioned a number of things that you want to confirm.

Showing empathy : using words, sounds or gestures that show you understand is perhaps the most important skill of all when dealing with the patient's feelings. If you notice that a patient is tense or anxious, for example, you can express your empathy by commenting on what you have noticed. By showing empathy, you allow the patient to express his or her fears, and establish more open communication between the two of you. Like facilitation, it also encourages the patient to continue speaking.

Reassurance : is a useful way to show that you accept the patient's feelings and that the problem need not last forever. You indicate with words, sounds or gestures that the patient's anxiety can be addressed.

Expressing partnership : confirms a commitment to help the patient. This commitment could be with the provider personally, as in the example below, or with the team of people in the health centre.

Most experienced providers use one or more of these interviewing skills some of the time. The key to interviewing patients who may have an STD is to use all six skills most of the time. Question 3.4 will help you familiarize yourself with each of these skills.

B. GATHERING STI/RTI INFORMATION

In this section we explain the kind of information you need to gather when taking the patient's history. We hope that you will use the communication skills covered in the last section because, as we have shown, they are indispensable to history-taking with STI patients.

The section will enable you to:

- identify general information that you need to gather
- explain why this information is necessary
- match the information you need to the questioning skills you have learned.

Improving your ability to collect patient history information is helpful because:

- it helps you to make a diagnosis of STI which is accurate and efficient, given the time you have available; and
- this information is also the starting point for partner referral and treatment, and for understanding the patient's behavioural risks of transmitting or contracting STIs in the future, as well as for partner referral and treatment.

The Information You Need

- General details about the patient.
- Description of present illness.
- Family Planning
- Medical history.
- Sexual history.
- Hygiene practices.

You can use the guide below to remember the types of questions to ask under each of these topics. The reasons for asking some of these questions will be clearer after you have studied Module 4, where the syndromic flow-charts are described in detail. For example a list of suggested questions for making a risk assessment are included there.

The history-taking guide can be adjusted to include other information that you consider to be valuable. For example, in some settings it may also be important to know whether or not male patients are circumcised or how many pregnancies female patients have had to be able to identify abortion or miscarriage.

Guide for History-Taking

i. General details:

- Age
- Locality or Address
- Employment.
- Level of Education

ii. Present illness:

Presenting complaints and duration

Explore symptoms described by the client that may indicate the presence of an STI and their duration, including:

- In female patients:

- Vaginal discharge
- Lower abdominal pain
- Painful intercourse
- Lesion
- Dysuria
- Fever
- Itching
- Other specify
- No symptoms

- In male patients:

- Urethral discharge
- Genital ulcer
- Genital warts
- Scrotal pain/swelling
- Dysuria
- Skin rash
- Adenopathy
- Anal discharge

- No symptoms
- Other specify

iii. Family Planning history for all women

STI/RTI prevention and concerns should be discussed with all family planning clients at each visit as the following:

- Using contraceptives such as injection, pill, condom, implant, IUD
- Number of pregnancy, number of living children
- Number of abortions, induced or spontaneous
- Last menstruation period

iv. Medical history

Any past STI – type? Dates? Any treatment and response? Results of tests? Other illness – type? Dates? Any treatment and response? Results of tests? Medications being taken currently, Drug allergies.

v. Sexual history

Explore risk behaviours to find out about factors that may affect the client's sexual health, including:

- For men:

- How many sex regular partners have you had in the last year?
- Did you use condom at the last sex?
- Any contact with casual partner in the past month?
- Did patient have STIs in the past?
- Does patient use any addictive drugs now?

- More questions if male is MSM

- Do you have sex with men, women or both?
- Do you commonly have anal or oral sex?
- Do you have receptive or insertive sex?

- For women:

- Does the patient know how to use a condom?
- How many regular clients/boyfriends in last 3 months?
- The type of sexual behaviour commonly practiced with clients/boyfriend (eg. vaginal, oral or anal sex?)
- Whether the patient used a condom, last time had sex with regular partner or boyfriend.
- Ask about the type of addictive drug used by the patient (if any)

vi. Hygiene practices

- Douching: how often and what is used.
- Other genital cleansing: internally, perfumes, soaps.
- Opportunity to educate and advise against douching.

Risk Assessment

Risk assessment is a specific set of questions to ask female patients who complain of vaginal discharge. The questions were devised to help service providers decide on the etiology; they should be adapted for local social and behavioural situations. Module 3 will discuss the possible questions.

For cervicitis, risk the assessment is important to assess which women presenting with vaginal discharge are most likely to have cervicitis and vaginitis as opposed to those with vaginitis alone. It is also an important tool to screen women with asymptomatic STI in the absence of laboratory diagnosis capability.

i. Risk assessment for female sex workers (DSW or IDSWs)

Explore risk assessment for cervicitis for sex workers are based on:

- 1- Thick yellow discharge
- 2- Lower abdominal pain during intercourse (deep pain as exposed to pain related with friction)
- 3- More than 5 clients per day on average
- 4- Unprotected sex with new clients

If answer is **yes to two or more questions**, treat for cervicitis.

ii. Risk assessment for general population

Few women from non high-risk groups (such as housewives) are expected to visit the STI clinic most prefers going to health centres. However, health care providers should of course attend women from the general population whenever they visit STI clinics. When facing a patient with complaints of vaginal discharge, the health care provider should make the risk assessment as shown below:

- Patient complaints of muco-purulent vaginal discharge and/or
- Partner has symptoms of any STI.

If answer is **yes to one or more questions**, treat for cervicitis.

HOW TO ASK QUESTIONS

Next, you need to consider how you will ask questions to obtain this information. It would be easy to convert the information on the previous page into closed questions but that means asking a lot of questions, as shown in the case-study below. On the other hand, this same case-study also includes examples of how one or two open questions might encourage the patient to provide most of the information you need. Note when the service provider uses open and closed questions as well as facilitation, direction and any of the other verbal skills.

Service provider: “I need to ask you a few very personal questions now... about your sexuality. I know this is difficult to talk about, but I assure you no one else will know.”

Patient: “Why does information about my sexuality matter to you?”

Service provider: “That’s a good question. It’s partly to help me make sure I’m giving you the right treatment, and partly to help us know how many people might have the same infection. Is that OK?”

Patient: “... Yes... all right.”

Service provider: “Have you been sexually active over the last three months or so?”

Patient: “Well, yes, I suppose so.”

Service provider: “Tell me about that.”

Patient: “What do you want to know?”

Service provider: “Oh, how often, that sort of thing.”

Patient: “Well... I’ve got two boyfriends... Well, there’s another friend I sleep with sometimes but he’s usually away...”

Service provider: “When did you last sleep with the friend who’s away a lot?”

Patient: “I can’t remember... Sometime last month I suppose.”

Service provider: “And what about your other boyfriends?”

Patient: “Well, Ro is my proper boyfriend. We spent the night together two nights ago. Well... we often do.”

Service provider: “What about your other boyfriends?”

Patient: “Ro doesn’t know about the others.”

Module 2: Clinical and Laboratory Examination Skill for STI/RTI Case Management

Service provider: “That’s all right. Let us come back to this issue later. You’re being very brave about all this.”

Patient: “Well... I see him every Tuesday. Usually... but I didn’t see him last Tuesday because I was with my parents.”

Service provider: “Do you know if any of your boyfriends has a discharge at the moment?”

Patient: “No... I mean, I’m not sure... I don’t know.”

Service provider: “That’s OK. Any other boyfriends in the last three months?”

Patient: “No.”




Service provider: “That’s fine. You’ve done very well, so now I can tell you what this discharge is...”

2) The Clinical Examination

The purpose of a clinical examination is to confirm any STI symptoms the patient has described by checking for signs of STI. This section explains what to do when examining male and female patients.

Examining the most private parts of a person's body requires tact, sensitivity and respect on the part of the service provider. Patients may be embarrassed or uncomfortable. In this section, we summarize the steps for conducting a clinical examination in an efficient and professional manner. We suggest some ways to help the patient understand the importance of the examination and overcome his or her embarrassment. In this way, you can provide some reassurance to the patient.

This section will help you to:

-  behave professionally with the patient before and during the examination.
-  reassure the patient who is reluctant to be examined and gain his/her confidence and co-operation.
-  conduct an efficient examination of both male and female patients.

2.1 Professional behaviour during a Clinical Examination

- Ensure privacy at all times.
- Explain what you are going to do, and why it is important.
- Approach the examination in a confident way, never showing uncertainly or embarrassment.
- Never be rough or conduct an examination against someone's will.
- Use all the communication skills covered in this module.

Patients may be shy and even reluctant to have their genitals examined. This can be especially true for women. To try to overcome this, professional behaviour for providers starts with assuring some degree of privacy during the examination.

You should then explain what will happen during the examination and why it is important.

You should also give the impression that you are confident and capable yet still sensitive to the patient's needs and worries. Ideally, patients will also be able to choose to be examined by a provider of the same gender. Some providers may be embarrassed or worried about the examination themselves, particularly when they are first learning this procedure. It is important to avoid showing patients any feelings of uncertainty or embarrassment because this can also interfere with the process of obtaining information.

Unfortunately, sometimes providers are rough during an examination because they feel rushed to finish. This is counter-productive because it interferes with building a good relationship with the patient, which is important for STD case management. Even though an examination is important in order to arrive at a diagnosis, we must never force someone to be examined.

Finally, professional conduct means you are able to use the communication skills covered in this module to maintain a productive two-way conversation with patients.

2.2 Good Examination Practice

| Essential Elements | Hint |
|------------------------------|---|
| 1- Allay the patient's fears | Explain what will be done and encourage disclosure of any comfort. |
| 2- Privacy | Provide a curtain across the window or around the examination bed and close the door. |
| 3- Examination bed | Examine the patient in lateral decubitus or "prayer" position. |
| 4- Good lighting | Small lesions are best seen with a patient examination light. |
| 5- Infection control | Wash hands with soap and water before and after examination; wear gloves. |

| | |
|----------------------------|---|
| 6- Health care provider | Health care provider to assist with preparation for the exam and as an assurance to the patient that the exam is standard medical practice is a good idea. |
| 7- Good preparation | Have equipment (e.g. slides, swabs and spatula and anosscopes nearby). |
| 8- Communication | Ask whether the patient is uncomfortable; provide assurance; explain when the discomfort will end, and how to relieve the discomfort. |
| 9- General examination | Examine the skin, mouth, lymph nodes, chest, cardiovascular system, abdomen. |
| 10- Speculum examination | Patient descriptions of signs can be unreliable; perform speculum where indicated; most important part of the exam is the visual inspection of the cervical & vaginal area. |
| 11- Anogenital examination | Patient descriptions of signs can be unreliable; perform anoscopy where indicated; most important part of the exam is the visual inspection of the anogenital region. |

2.3 Examination Regions

| Region | Exposure Needed | Body Position |
|---|---|----------------------|
| <ul style="list-style-type: none"> • Hands/ arms • Head & neck • Mouth | Clothes loosened | Sitting |
| <ul style="list-style-type: none"> • Abdomen | Clothes loosened, abdomen exposed | Supine |
| <ul style="list-style-type: none"> • Genitals • Anus/ rectum | Gown with undergarment off, abdomen to knees exposed. | Supine |

2.4 EXAMINING PATIENTS

Patients should be examined in the same conditions of privacy as those in which the history was taken. Patients should feel comfortable that no one will walk into the room while they are undressing or lying on the examination table. When examining patients of the opposite sex, it is usually advisable to have an assistant of the same sex as the patient present.

All examinations should begin with a general assessment, including vital signs and inspection of the skin, to detect signs of systemic disease. It is beyond the scope of these guidelines to cover all aspects of the physical examination.

Before you start:

- Ensure that the examination can be conducted in privacy.
- Ask the woman to pass urine.
- Wash your hands well with clean water and soap.
- Ask the patient to loosen her clothing. Use a sheet or clothing to cover her/him.
- Have her lie on her back, with her heels close to her bottom and her knees up. Explain to the patient each step of the exam and what to expect.
- Touch a “non genital” area of the body first.
- Make eye contact. Watch for sign of discomfort(facial expressions, not relaxed, guarding).
- Avoid lengthy discussions when patient is in the exam position.
- Move exam light off genital areas as soon as possible.
- Exam painful areas last.

2.4.1 General inspection and skin exam:

- a. Inspect face, trunk, and legs.
- b. Inspect exposed skin, hands, palms, and forearms.
- c. Inspect soles of feet if syphilis is suspected.
- d. Look for lesions, rashes, discoloration.



**Primary Syphilis
Digital Chancre**



Secondary Syphilis

2.4.2 Oral exam:

- a. Inspect mouth, including lips, tongue, tonsils, hard and soft palate, and gum lines.
- b. Note presence of oral infections, e.g., thrush, hairy leukoplakia, lesions, mucous patches, discoloration, oral HSV, Kaposi's sarcoma, etc.
- c. Obtain specimen for gonorrhea testing if indicated by history of oral sex.
- d. Swab tonsillar areas and posterior pharynx.



Pharyngeal gonorrhea



Primary Syphilis Chancre on Chin, Tongue

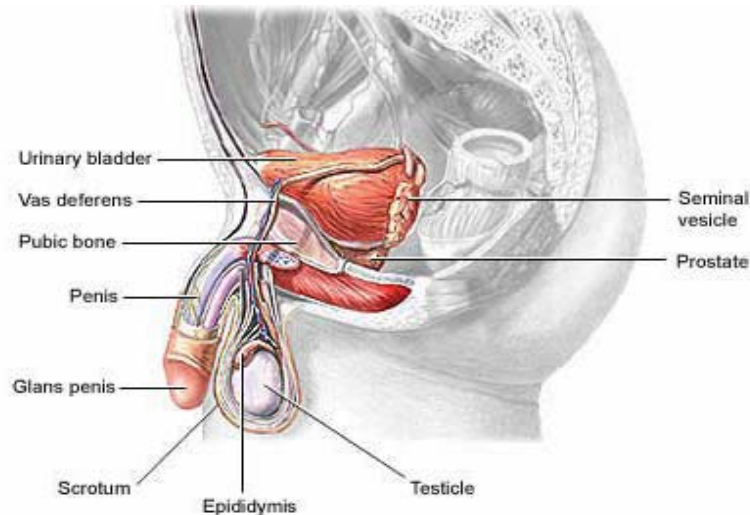
2.4.3 Palpate axillary, cervical, epitrochlear, and sublingual lymph nodes.

2.4.4 Kidney exam if indicated.

2.4.5 Abdominal exam if indicated.

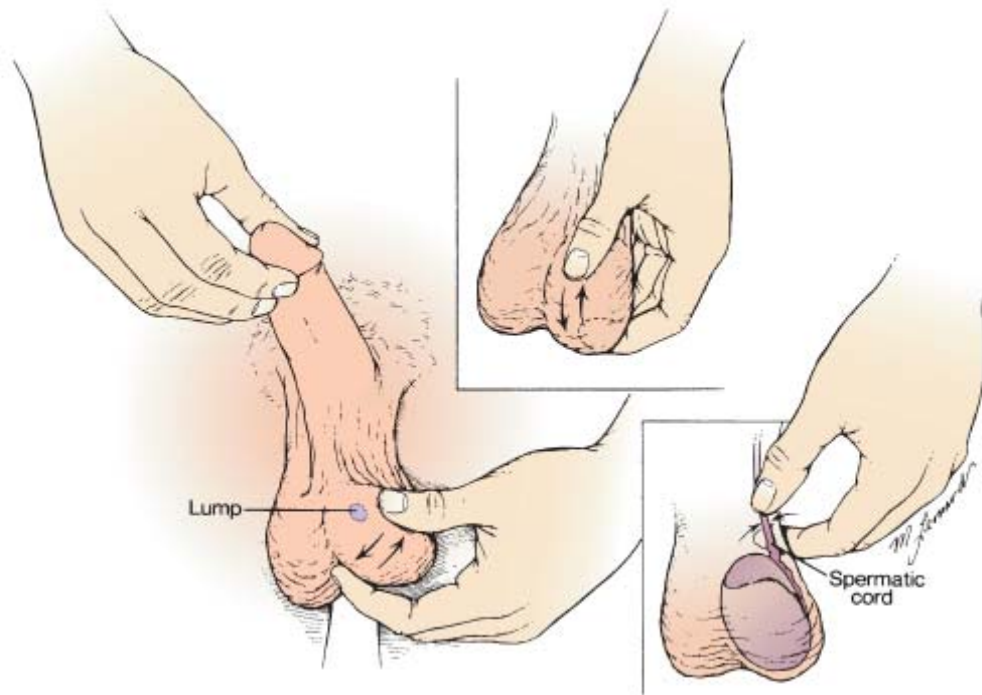
Physical Examination for Men

i. GENITAL EXAM



- a. Instruct patient to stand and lower pants/underpants to knees to expose genitalia and inguinal area.
 - b. Palpate inguinal lymph nodes for fluctuance, swelling and tenderness.
 - c. Inspect pubic hair/skin for scabies, lice, nits and lesions.
 - d. Palpate scrotal contents by gently compressing each testis and epididymis and spermatic cord between your thumb and first two fingers:
 - a) Note tenderness, shape, masses, hernias, swelling, or presence of nodules.
 - b) Identify spermatic cord with its vas deferens and epididymis; note tenderness, swelling, or mass.
- Normal testicular findings:
 - Normal variation-one testicle may be larger than the other and left testicle may lie lower than right.
 - Normally oval shaped
 - Firm, smooth, and rubbery
 - Abnormal testicular finding
 - Identify lumps or bumps on testicle.
 - Epididymis (next to testicle)
 - Soft and mobile.

- May be mildly tender.
- Vas deferens (spermatic cord)
 - Contiguous with epididymis.
 - Should be smooth and mobile.



e. Examine penis:

- Inspect skin.
- Retract or ask patient to retract the foreskin, if present.
- Inspect glans for ulcers, raised lesions, or signs of inflammation.
- Compress glans gently between your thumb and index finger to open the urethral meatus.
- If no discharge is visible, strip or milk the shaft of the penis from the base to the glans.
- Inspect meatus for stenosis, lesions, urethral position.



*Chancroid Infection
Multiple Penile Ulcers*

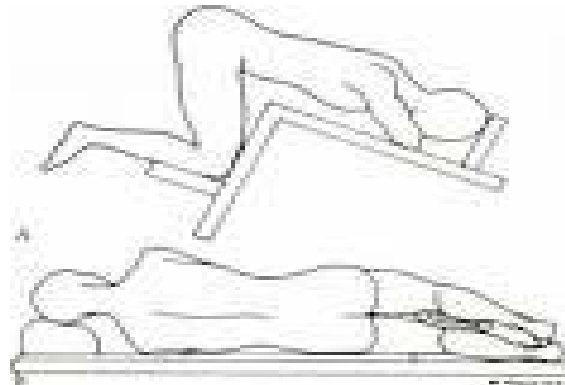


*Genital Herpes-Primary
Penile Ulcers with
Purulent Exudate*



*Recurrent Herpes
Early Lesions*

f. Examine anus and perineum:



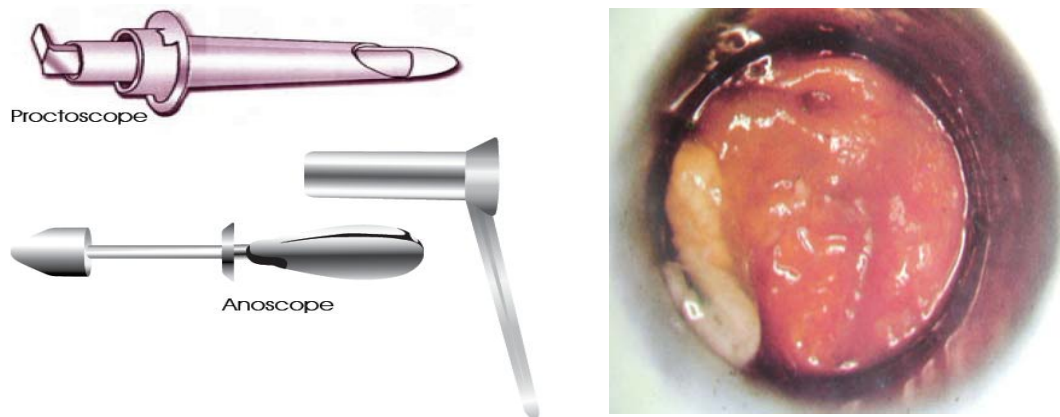
Digital rectal exam

- Ask the client to turn onto the left side (left lateral position) to bend both knees and flex the hips to 45°.

- Ask the client to place their right hand on their right buttock and to draw it upwards. This gives full exposure of the peri-anal area and allows you to have both hands free for inspection and examination. (You may wish to kneel down or sit on a chair to save you from bending your back.)
- Inspect the buttocks, perineum and peri-anal area. Note any lumps, ulcers, rashes, scars or discharge.
- Perform proctoscopy where appropriate (see following page).
- Wash hands with soap and water.
- Ask the client to get dressed.

ii. PROCTOSCOPE EXAMINATION

- ☞ Conduct proctoscopy (male or female) if a client has any anorectal signs or symptoms or has had recent unprotected receptive anal intercourse
- ☞ Ask the client to lie in the left lateral position. Smear lubricating jelly onto the anal verge and the length of the proctoscope.
- ☞ Rest the proctoscope at the anal verge until the sphincter relaxes, then insert slowly while applying gentle constant pressure. Allow the proctoscope to follow line of least resistance rather than pushing. Generally aim towards the navel.
- ☞ Elevation and relaxation of the buttocks aids insertion, as does asking the client to "bear down" as if opening the bowels.
- ☞ Remove the introducer once the proctoscope has reached its limit.
- ☞ Observe, using the examination light: colour and texture of rectal mucosa; presence of discharge; presence of ulceration; bleeding; lesions.
- ☞ Slowly remove the proctoscope, checking for haemorrhoids and/or other lesions on withdrawal.
- ☞ Perform, if indicated, with gloved right index finger, examination of prostate and lower rectum.
- ☞ Remove and dispose of gloves, then wash hands with soap and water.



SIGNS TO LOOK FOR WHEN EXAMINING MEN










| Signs to look for | management |
|---|--------------------|
| Urethral discharge | Urethral discharge |
| Ulcers, sores or blisters | Genital ulcer |
| Swelling or lumps in the groin(inguinal lymphadenopathy) and swelling of testicles. | Inguinal bubo, |

Physical Examination for women

There are three components to the female genital examination, depending on available equipment and supplies.

- 1- external genital examination;
- 2- speculum examination;
- 3- bimanual examination.

i. THE EXTERNAL GENITAL EXAMINATION

-  Palpate inguinal lymph nodes for fluctuance, swelling or tenderness.
-  Inspect pubic hair/skin for crabs, nits, lesions, scabies.
-  Inspect external genitalia for discharge, erythema, masses, lesions and tenderness.
-  Include labia majora and minora, clitoris, urethral orifice, introitus and perineum.
-  Inspect and palpate Bartholin's glands by applying gentle pressure bilaterally between thumb and forefinger along labia minora and introitus.
-  Milk urethra (insert finger into vagina and gently compress urethra up against symphysis pubis) and observe for discharge from Skene's (paraurethral) glands.
-  Collect specimens (Gram stain of discharge, HSV culture, darkfield or DFATP from lesion) as indicated. Be sure to change gloves between potentially infected sites to avoid cross contamination.
-  Inspect the anus and perianal areas: note inflammation, lesions, rashes or excoriation.
-  Prior to contamination with lubricant, obtain gonorrhea and/or Chlamydia rectal cultures (if indicated by ano-receptive sex) by inserting cotton swab

into the anus about 2 cm. Be sure to change gloves between potentially infected sites to avoid cross contamination.

| Signs to look for when doing an external examination | Management |
|---|-------------------|
| Discharge and redness of the vulva are common signs of vaginitis. When the discharge is white and curd-like, yeast infection is likely. | Vaginal discharge |
| Ulcers, sores or blisters. | Genital ulcer |
| Swelling or lumps in the groin (inguinal lymphadenopathy). | Inguinal bubo |



*Primary Syphilis
Multiple Vulvar Chancres*



Genital warts



Urethritis

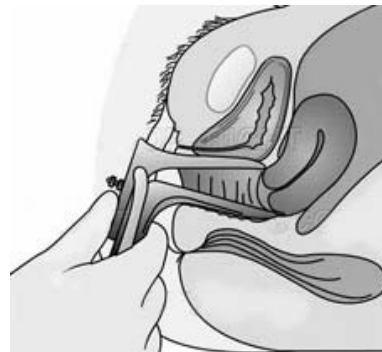
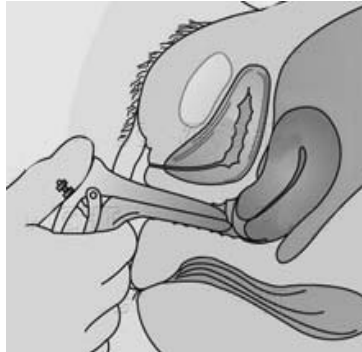
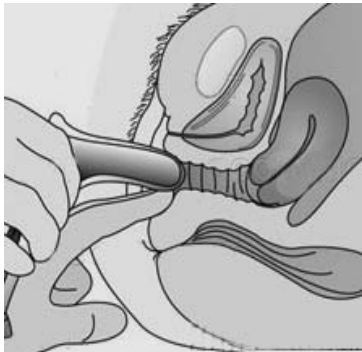


Gonococcal pus in the Bartholin's duct

ii. SPECULUM EXAMINATION



Speculum insertion:



1. Insert index finger into vagina to identify firm, rounded surface of the cervix.
(Not always done or necessary.)
2. Select appropriate size and shape of speculum (Pederson: narrow blades; usually better for virgins and elderly women. Graves: preferable for sexually active women). Selection is based on provider preference and experience. Plastic disposable specula are available in different sizes. Lubricate with warm water if necessary. Never use lubricant jelly, as it will interfere with diagnostic specimens
3. Place two fingers at introitus and press down on perineal body. With other hand, introduce closed speculum past your fingers at oblique angle.
4. When speculum has entered the vagina, remove fingers from introitus. Rotate the blades into horizontal position. Maintain pressure posteriorly and insert speculum to its full length.

Inspect the cervix:

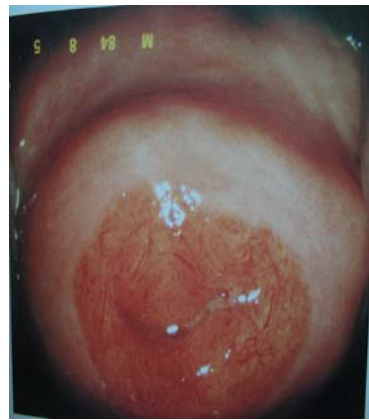
1. Open blades and maneuver the speculum, if necessary, so that cervix comes into full view.
2. Secure the speculum with the blades open.
3. Inspect cervix and os. Note color, position, characteristics of its surface, (ulcerations, nodules, polyps, nabothian cysts), masses, bleeding or discharge, ectopy, friability, strawberry cervix.



Normal Cervix



Normal Cervix with ectopy



**Cervical Discharge
and ectopy**



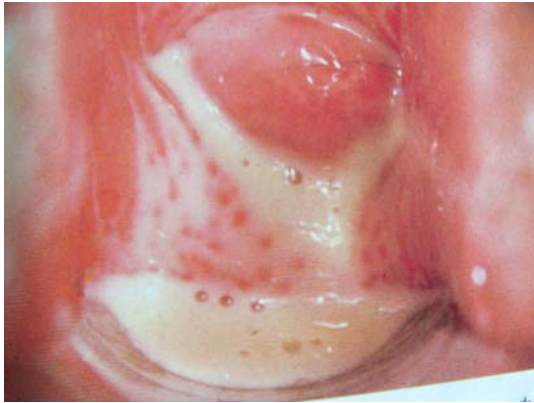
**“strawberry-like” appearance of the
cervix due to *T. vaginalis* infection**



**Cervical erosions due to
*Chlamydia trachomatis***

Inspect vagina:

1. Note vaginal secretions (amount, color, odor).
2. Withdraw the speculum slowly while observing the vagina. As speculum clears the cervix, release the thumb screw and maintain open position of speculum with thumb.
3. Maintain blades in open position to observe vaginal mucosa. Note inflammation, ulcers, or masses as speculum is withdrawn.
4. Close the blades as speculum emerges from the introitus to avoid stretching or pinching mucosa.



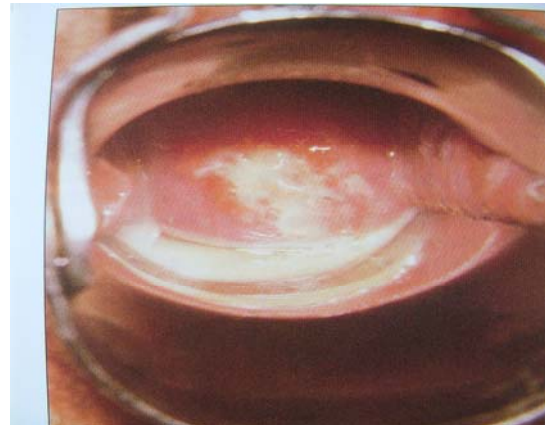
Trichomonas vaginalis



Candidiasis



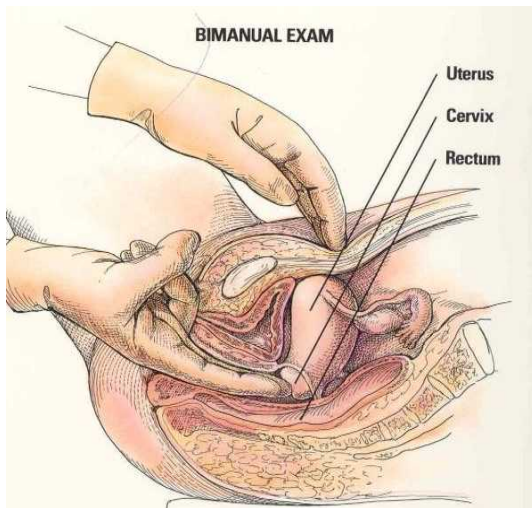
Bacterial vaginosis



**Gonococcal cervicitis
mucopurulent discharge**

| Signs to look for when doing a speculum examination | Management |
|--|---|
| vaginal discharge and redness of the vaginal walls are common signs of vaginitis. When the discharge is white and curd-like, yeast infection is likely. | Vaginal discharge (for pregnant women flowchart 9) |
| Ulcers, sores or blisters. | Genital ulcer |
| If the cervix bleeds easily when touched or the discharge appears mucopurulent with discoloration, cervical infection is likely. | Treatment table 2 |
| If you are examining the woman after birth, induced abortion or miscarriage, look for bleeding from the vagina or tissue fragments and check whether the cervix is normal. | Complication of abortion |
| Tumors or other abnormal-looking tissue on the cervix. | Refer for Pap smear or cytology. |

iii. BIMANUAL EXAMINATION







- Test for cervical motion tenderness. Put the pointing finger of your gloved hand in the woman's vagina. As you put your finger in, push gently downward on the




- muscles surrounding the vagina. When the muscles relax, put the middle finger in too. Turn the palm of your hand up.
- Feel the opening of her womb (cervix) to see if it is firm and round. Then put one finger on either side of the cervix and move the cervix gently while watching the woman's facial expression. It should move easily without causing pain. If it does cause pain (you may see her grimace), this sign is called cervical motion tenderness, and she may have an infection of the womb, tubes or ovaries. If her cervix feels soft, she may be pregnant.
 - Feel the womb by gently pushing on her lower abdomen with your outside hand. This moves the inside parts (womb, tubes and ovaries) closer to your inside hand. The womb may be tipped forward or backward. If you do not feel it in front of the cervix, gently lift the cervix and feel around it for the body of the womb. If you feel it under the cervix, it is pointed back.
 - When you find the womb, feel for its size and shape. Do this by moving your inside fingers to the sides of the cervix, and then "walk" your outside fingers around the womb. It should feel firm, smooth and smaller than a lemon.
 - If the womb feels soft and large, she is probably pregnant.
 - If it feels lumpy and hard, she may have a fibroid or other growth.
 - If it hurts when you touch it, she may have an infection inside.
 - If it does not move freely, she could have scars from an old infection.
 - Feel the tubes and ovaries. If these are normal, they will be hard to feel. If you feel any lumps that are bigger than an almond or that cause severe pain, she could have an infection or other emergency. If she has a painful lump, and her period is late, she could have an ectopic pregnancy and **needs medical help** right away.
 - Move your finger and feel along the inside of the vagina. Make sure there are no unusual lumps, tears or sores.
 - Have the woman cough or push down as if she were passing stool. Watch to see if something bulges out of the vagina. If it does, she could have a fallen womb or fallen bladder (prolapse).
 - When you are finished, clean and disinfect your glove if it will be reused. Wash your hands well with soap and water.

| Signs to look for when doing a bimanual examination | Management |
|---|--|
| Lower abdominal tenderness when pressing down over the uterus with the outside hand. | Use the lower abdominal pain flowchart if any tenderness is detected on abdominal or bimanual examination. |
| Cervical motion tenderness (often evident from facial expression) when the cervix is moved from side to side with the fingers of the gloved hand in the vagina. | |
| Uterine or adnexal tenderness when pressing the outside and inside hands together over the uterus (centre) and adnexae (each side of uterus). | |
| Any abnormal growth or hardness to the touch. | Refer for Pap smear or cytology. |

iv. RECTOVAGINAL EXAM:

-  Not a routine part of the STD exam, but can be done, if desired, to palpate a retroverted uterus.
-  Change to clean glove and place index finger into vagina and middle finger into rectum. Use the abdominal hand to perform a bimanual assessment. Masses and mid or posterior uterus may be better appreciated with this technique.
-  Anoscopic exam should be considered for patients with anorectal symptoms and a recent history of engaging in anal sex to visualize lesions and obtain specimens for Gram stain and gonococcal cultures.
-  Rectal specimens should be collected prior to contamination with lubricant.

v. RECORD THE PRESENCE OR ABSENCE OF:

-  Buboes
-  Ulcers
-  Vaginal discharge, noting the color and amount.

SYMPTOMS AND SIGNS OF RTIs IN WOMEN

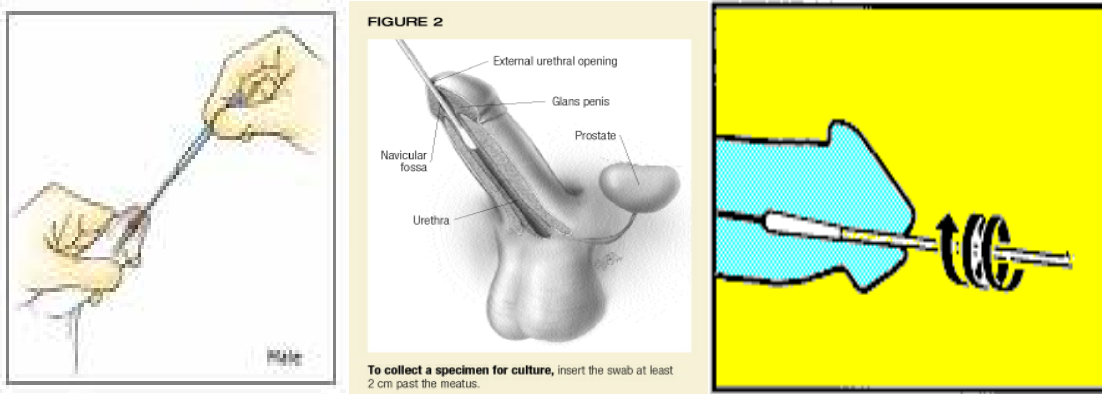
| Syndrome | Symptoms | Signs |
|--------------------------------|---|--|
| Vaginitis | Vaginal discharge that is abnormal in colour, odour, amount or consistency. Itching or irritation of the vulva or vagina | Vulvovaginal redness Vaginal discharge seen on external or speculum examination. |
| Cervicitis | Usually none. Sometimes burning on urination or spotting of blood after intercourse | Mucopurulent cervical discharge Cervical bleeding to touch |
| Lower abdominal pain | Lower abdominal pain Pain on intercourse | Lower abdominal tenderness on abdominal examination Cervical motion tenderness on bimanual examination Uterine or adnexal tenderness on bimanual examination |
| Genital ulcer Inguinal bubo | Genital ulcers, sores or blisters Swelling, lumps or ulcers in the groin area | |

3) Specimen Collection

3.1 For Men

3.1.1 Male urethral smear

Patient should not urinate prior to specimen collection. Insert a small swab into the urethra 2cm, hold for 10-30 seconds.



Insert swab into urethra 2cm,

Hold for 10-30 second

3.1.2 Rectal smear

Use an anoscope to collect the specimen and sample areas containing pus.

- Asymptomatic patients: pass moistened swab 1-2cm through anal sphincter, angle towards rectal wall, and slowly withdraw.
- Symptomatic patient: perform anoscopy to inspect anal canal and collect specimen.

3.2 For women

Before collecting specimens, the physician write down the code number on two slides. The code number is as same as the previous ones that have been used for the SMH of the same patient. This process must be careful to avoid false code number.

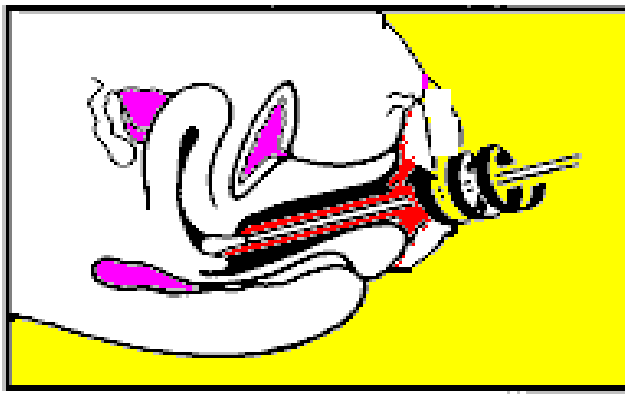
3.2.1 In vagina:

Collect vaginal fluid from the posterior fornix using two cotton swabs and avoiding cervical secretions. One swab will be rolled on a microscope slide for Gram stain and

air-dried for microscopic examination to look for bacteria through Nugent score assessment. Another swab will be used for wet preparation on a second microscopic slide.

3.2.2 In endocervix:

Collect endocervical fluid by using a swab. Insert small cotton swab 1-2cm into endocervical canal. The swab is rolled in the endocervix for 10 seconds after cleaning of cervix, and then it is rolled on a microscope slide for Gram stain/Methylene blue for microscopic examination for white blood count (WBC). The result of lab examination has to be written down in the SMH and then, the patient will be given treatment based on the National Guidelines for STI/RTI case management (refer to module 3 for STI/RTI treatment).



- remove excess mucus from cervical os
- Insert swab 1-2cm into endocervical canal

3.2.3 Syphilis serology:

In the laboratory room, as a routine procedure for first time visitors, collection of 5cc of venous blood in a dry sterile test tube with stopper.

3.2.4 HIV testing:

Refer STI clinic client to VCCT (including drug user, prostitutes, and sexual contacts bisexual men, or women with multiple partners. After completion of the routine screening history and physical examination, it should be possible.

Commons STI/RTI syndromes

| Syndrome | STI/RTI | Organism | Type | Sexually transmitted | Curable |
|--------------------|--|--|-----------|----------------------|---------|
| Genital Ulcer | Syphilis | Treponema Pallidum | Bacterial | Yes | Yes |
| | Chancroid | Haemophilus ducreyi | Bacterial | Yes | Yes |
| | Herpes | Herpes simplex | Viral | Yes | No |
| | Granuloma inguinal | Klebseilla granulomatis | bacterial | Yes | Yes |
| | Lymphogranuloma venereum | Chlamydia trachomatis | Bacterial | Yes | Yes |
| Vaginal discharge | Bacterial vaginosis | Multiple | Bacterial | Yes | Yes |
| | Yeast infection | Candida albicans | Fungal | No | Yes |
| | Trichomoniasis | Trichomonas vaginalis | Protozoal | No | Yes |
| | Gonorrhoea | Neisseria | Bacterial | Yes | Yes |
| | Chlamydia | Chlamydia trachomatis | Bacterial | Yes | Yes |
| PID | Bacterial anaerobia Gonorrhoea Chlamydia | Multiple Neisseria Chlamydia trachomatis | Bacterial | Yes | Yes |
| Genital warts | Human papilloma virus (HPV) | Human papilloma virus (HPV) | Virus | Yes | No |
| Urethral discharge | Gonorrhoea Chlamydia | Neisseria Chlamydia trachomatis | Bacterial | Yes | Yes |

**National Guidelines on Sexually Transmitted Infections (STIs)
and Reproductive Tract Infections (RTIs) Case Management**

MODULE 3

**DIAGNOSIS AND
TREATMENT OF STIs/RTIs**

1) SYNDROMIC MANAGEMENT OF SYMPTOMATIC SEXUALLY TRANSMITTED INFECTIONS

Syndromic STI management provides high quality STI care by treating people with one or more STIs with the most effective drugs at their first point of contact with the health services.

The emphasis is a rapid treatment and increasing people's access to sexual and reproductive health care. The Syndromic approach is well suited to primary health care services in resource poor settings because it does not rely upon expensive or inaccessible laboratory tests for diagnosis.

Health workers are trained to diagnose (by taking a history confirmed by examination) and treat on basis of the identification of syndrome. An STI syndrome is the grouping of symptoms (given by the patient) and clinical signs shown in the examination by health worker.

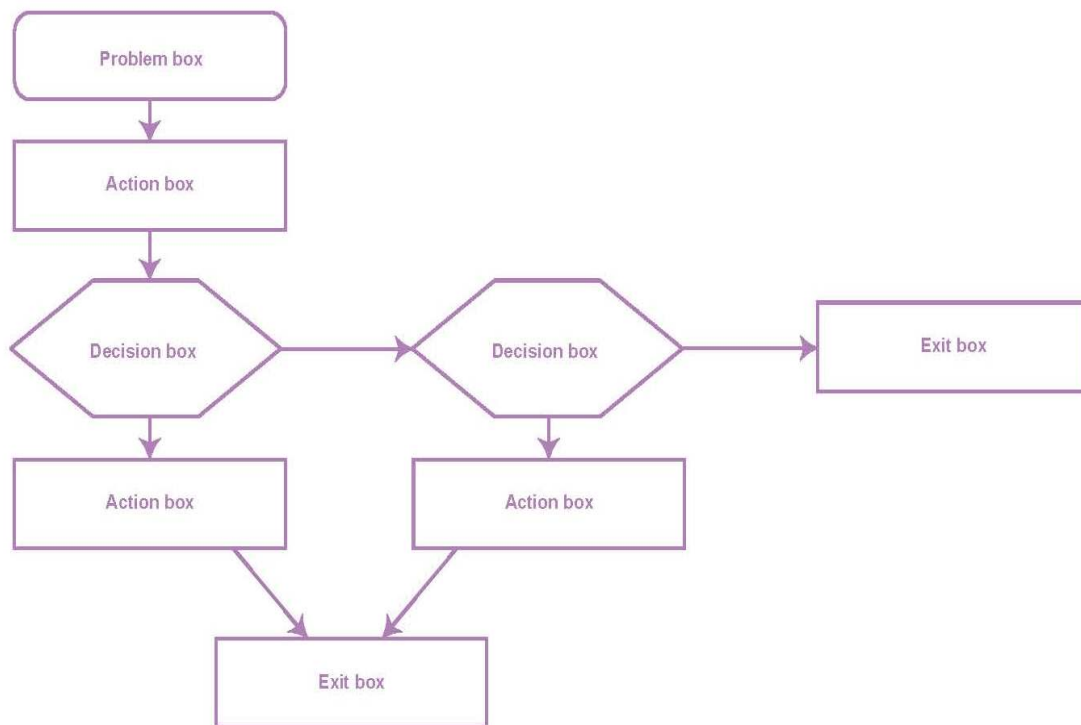
Once the syndrome has been diagnosed, treatment is provided for the majority of organisms known to be responsible for that particular syndrome. The health worker is guided by a flowchart to the most effective treatment for a given set of signs and syndromes.

The syndromic approach continues to provide developing countries with a cost-effective and appropriate means of managing the most common STI syndromes of public health importance. These include:

- 1- Male urethral discharge
- 2- Genital ulcer disease
- 3- Vaginal discharge
- 4- Lower abdominal pain
- 5- Genital warts
- 6- Inguinal bubo
- 7- Scrotal swelling
- 8- Ophthalmia neonatorum (neonatal conjunctivitis)

HOW TO USE THE FLOW-CHARTS

- Start at the top of the flow-chart, at the entry point box describing patient complaint.
- Gather the information needed for diagnosis
- Make decisions based on information gathered and gather more info as required
- Make a diagnosis and use treatment that corresponds to the diagnosis
- Offer education and condoms
- Explore options for partner referral



There is an entry point box at the top of each flow-chart, describing the complaint expressed by the patient. The entry point, in other words, is an STD-related symptom.

You should be able to pick the appropriate flow-chart as soon as the patient finishes describing their symptoms. As you move through the flow-chart, you will need to collect more information in order to make a diagnosis. This information is gained from history-taking and examination as described in Module 2, and may be different for each flow-chart.

At or near the end of each flow-chart, there are boxes indicating an appropriate action. There are boxes that include a diagnosis and will suggest that you choose treatment for one or more causes of the particular syndrome. When choosing treatment, you may need to consider alternative therapies for pregnant or lactating women. There may be other boxes that indicate you should be using a different flow-chart. There may be still other boxes that suggest the case be referred to address complications or that indicate the patient needs to return for a follow-up examination. All flow-charts will include education for behaviour change, condom promotion, and partner referral and care. These topics are covered in more detail in Modules 4 but we will briefly describe them below. In this course we refer to education as including the following topics:

- ✚ advising patients on the importance of complying with treatment, especially in completing a course of tablets;

- ✚ explaining how STD are transmitted and the possible complications of infection;
- ✚ advising the patient not to engage in sexual activity until completely cured; a
- ✚ talking about the patient's choices for making their sexual behaviour safer: abstaining from sexual activity, maintaining a mutually monogamous sexual relationship, engaging in non-penetrative sex or always using condoms.

In some situations, providers may be able to go beyond information-giving and help patients to understand their choices for changing their behaviour. For example, some people may not feel able to refuse a sexual relationship, and talking about this situation may help them find a way to reduce their risk of getting infected with an STD in the future.

Condom-use education is recommended for every person who comes to you with an STD-related complaint. It is advisable to do a step-by-step condom demonstration with each patient, followed by either giving the patient a supply of condoms or discussing where to get them.

Partner referral should be discussed with each patient diagnosed with an STD. After asking for the patient's help with identifying sexual partners, you will again use the skills covered in this course to care for people who come in as a partner of someone treated for STD.

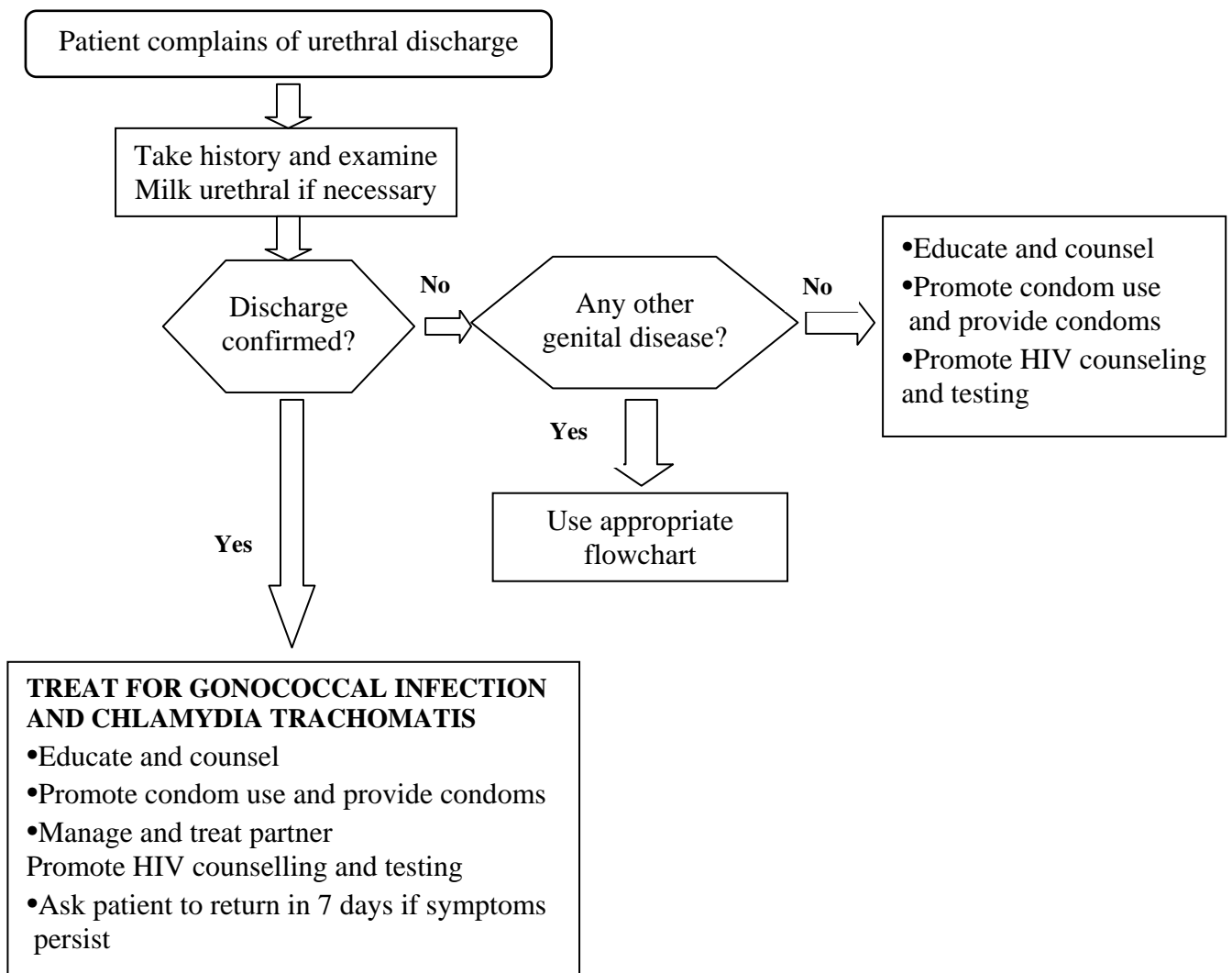
2) URETHRAL DISCHARGE SYNDROME

2.1 URETHRAL DISCHARGE (Patient with present of urethral discharge)

Male patients complaining of urethral discharge and/or dysuria should be examined for evidence of discharge. If none is seen, the urethra should be gently massaged from the ventral part of the penis towards the meatus.

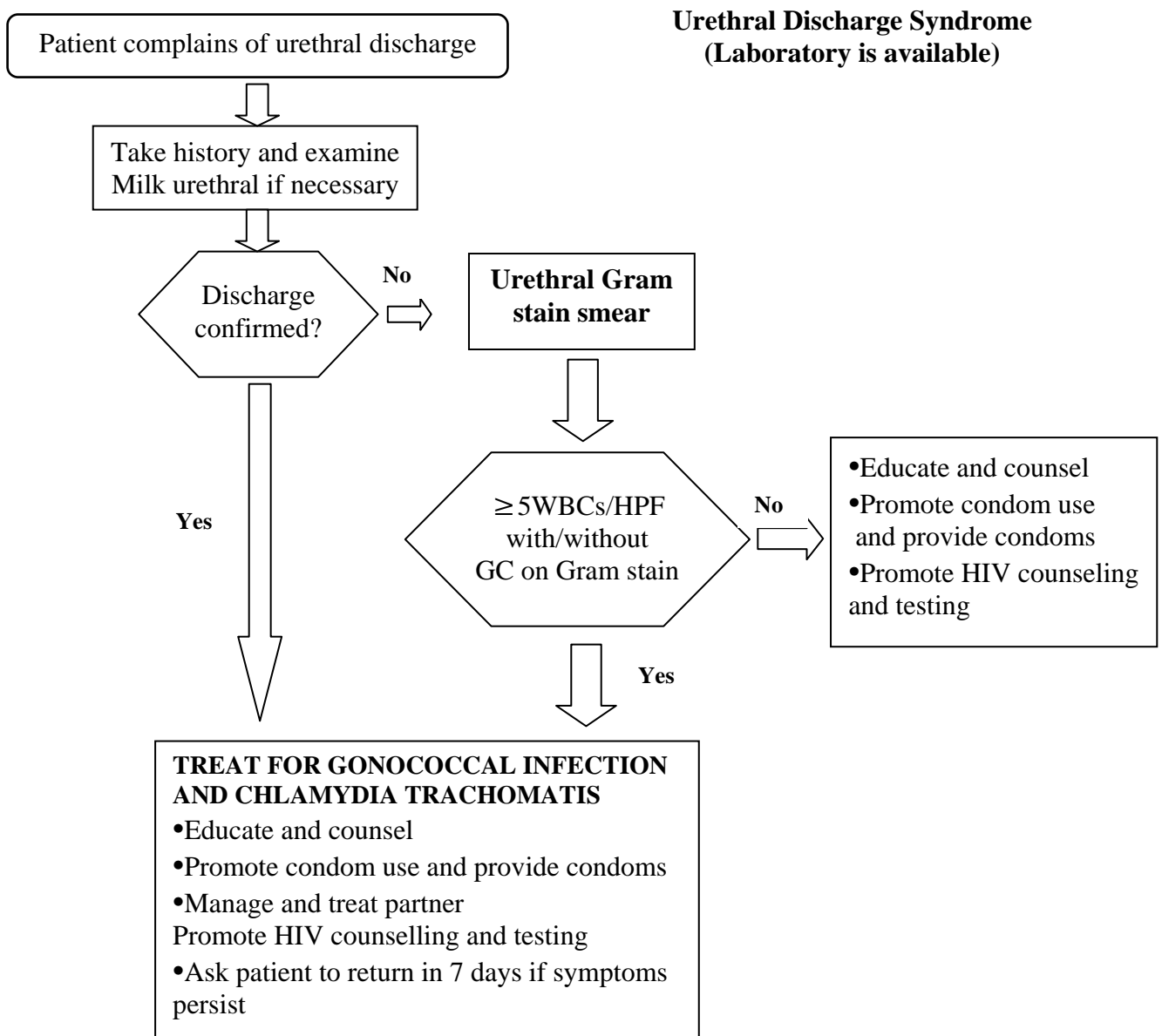
The major pathogens causing urethral discharge are *N. gonorrhoeae* and *Chlamydia trachomatis* (*C. trachomatis*). In the syndromic management, treatment of a patient with urethral discharge should adequately cover these two organisms. Where reliable laboratory facilities are available, a distinction may be made between the two organisms and specific treatment instituted.

Urethral Discharge Syndrome (Laboratory is not available)



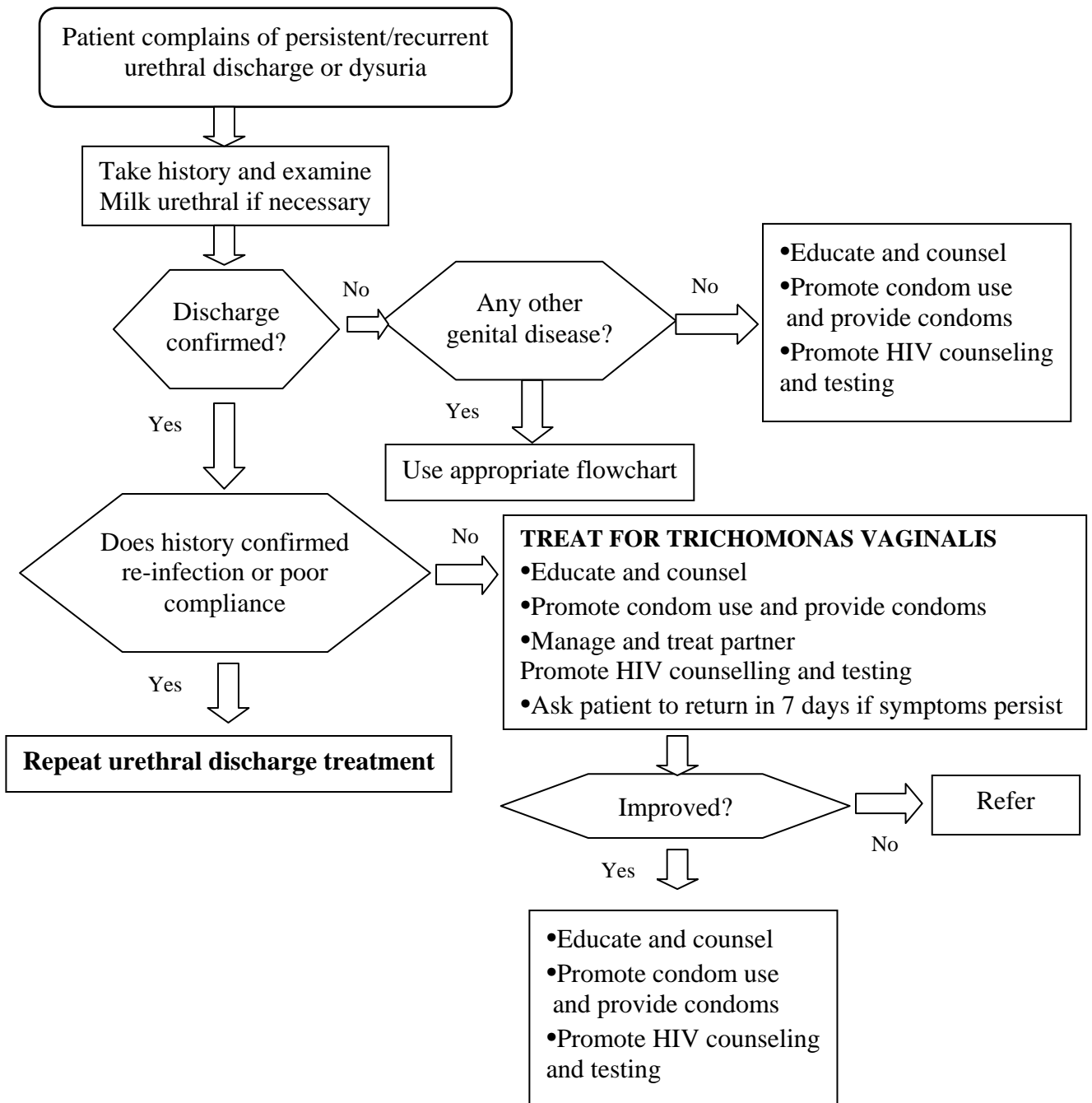
2.2 URETHRAL DISCHARGE (Patient with complaint of urethral discharge but **no discharge present**)

Male patients complaining of urethral discharge but discharge not present should be examined for evidence of discharge. If none is seen, the urethra should be gently massaged from the ventral part of the penis towards the meatus. If microscopy is available, examination of the urethral smear may show an increased number of polymorphonuclear leukocytes and a Gram stain may demonstrate the presence of gonococci. In the male, **more than 5 polymorphonuclear leukocytes per high power field** are indicative of urethritis.



2.3 PERSISTENT/RECURRENT URETHRAL DISCHARGE

Persistent or recurrent symptoms of urethritis may be due to drug resistance, poor compliance or re-infection. In some cases there may be infection with *Trichomonas vaginalis* (TV). There is new evidence suggesting high prevalence of TV in men with urethral discharge in some geographical settings. Where symptoms persist or recur after adequate treatment for gonorrhoea and chlamydia in index patient and partner(s), the patient should be treated for TV, if the local demographic pattern so indicates. If the symptoms still persist at follow up the patient must be referred.



2.4 GONOCOCCAL AND NON-GONOCOCCAL URETHRITIS IN MALES

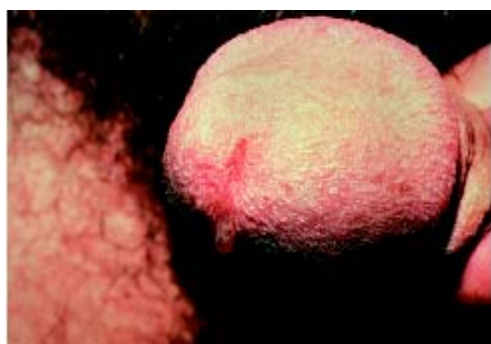
Urethritis, as characterized by urethral inflammation. It is the most frequent STD syndrome seen in men. Symptoms, if present, include discharge of mucopurulent or purulent, dysuria, or urethral pruritis. Asymptomatic infections are common. Customarily, clinicians categorize urethritis into gonococcal and nongonococcal etiologies. *C. trachomatis* causes 20 to 40% of cases of NGU, and some studies indicate that *Mycoplasma genitalium* and *Ureaplasma urealyticum* may cause an additional 10 to 20%. The remaining cases probably result from sexually transmitted pathogens, but their precise etiology remains unclear. Occasionally, urethritis results from infection with *Trichomonas vaginalis*, or herpes simplex virus. Most patients with urethritis due to genital herpes infection will have obvious herpetic penile lesions, and many with urethritis due to *T. vaginalis* will have sex partners with trichomonal vaginitis.

2.4.1 INCUBATION PERIOD

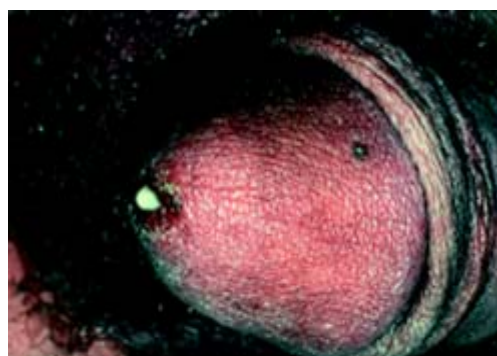
Gonorrhoea usually develops 2 to 6 days after exposure to *Neisseria gonorrhoeae* (GC), whereas NGU generally develops between 1 and 5 weeks after infection, with a peak around 2 weeks.

2.4.2 CLINICAL MANIFESTATIONS

Both gonococcal and nongonococcal urethritis typically cause urethral discharge, dysuria, or urethral itching. Three-quarters of men with gonococcal urethritis have purulent urethral discharge, and three-quarters of men with chlamydial have clear or mucoid discharge. Complications of NGU among men infected with *C. trachomatis* include epididymitis, prostatitis, and Reiter's syndrome. Documentation of chlamydia infection is essential because of the need for partner referral for evaluation and treatment. *Sequelae* with the advent of antibiotics, complications as a result of gonococcal urethritis, such as locally invasive infection, urethral strictures, or disseminated gonococcal infection are now rare. NGU is generally a self-limited disease and, even without therapy, clinical consequences are minimal. Epididymitis can develop in up to 2% of cases, and conjunctivitis occasionally occurs. Reiter's syndrome may result from untreated chlamydial urethritis in genetically predisposed individuals.



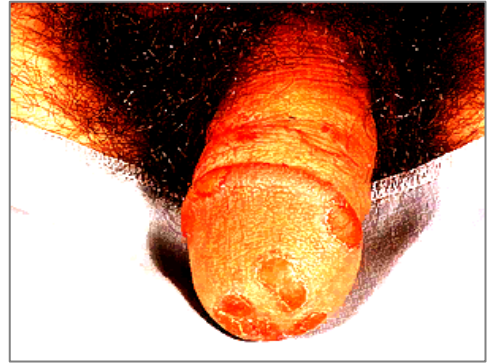
Nongonococcal urethritis (mucoid discharge)



Gonococcal urethritis (purulent discharge)



DGI Skin Lesion



Reiter's Syndrome
Circinate Balanitis

2.4.3 Management of Patients Who Have Urethritis

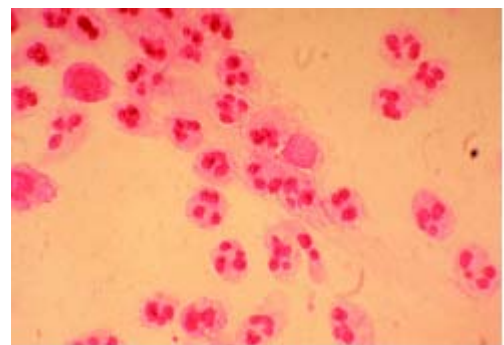
CONFIRMED URETHRITIS

Document urethritis by the presence of at least *two* of the following three features:

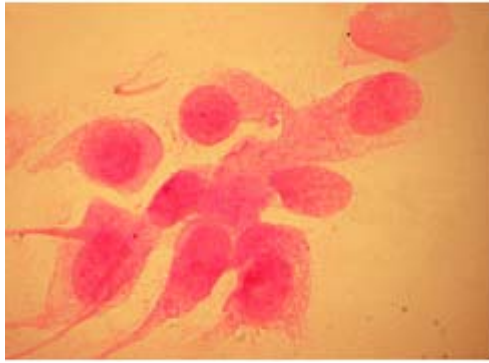
1. Symptoms: history of urethral discharge and/or dysuria
2. Examination: presence of purulent, mucopurulent, or mucoid urethral discharge
3. Laboratory: (any one of following is sufficient)
 - Gram-stain of urethral secretions showing ≥ 5 WBCs per oil immersion field.
 - positive leukocyte esterase test on first void urine or microscopic examination of first-void urine sediment demonstrating ≥ 10 WBCs per high power field.



Intacellular Gram-negative diplococci (GNDC) in urethral Gram stain



Urethral Gram stain with >5 WBCs per high power



Normal urethral cells on Gram stain



Lesion of disseminated gonococcal infection

2.4.4 Treatment

1- *Gonococcal urethritis*

- ✚ Cefixime, 400 mg orally, as a single dose **OR**
- ✚ Ceftriaxone, 125 mg by intramuscular injection, as a single dose **OR**
- ✚ Spectinomycin, 2 g by intramuscular injection, as a single dose.

2- *Chlamydial urethritis*

- ✚ Azithromycin, 1 g orally, in a single dose **OR**
- ✚ doxycycline, 100 mg orally, twice daily for 7 days **OR**
- ✚ Erythromycin, 500 mg orally, four times a day for 7 days

2.4.5 Follow-Up for Patients Who Have Urethritis

- ✚ Patients should be instructed to return for evaluation if symptoms persist or recur after completion of therapy.
- ✚ Patients should be instructed to abstain from sexual intercourse until 7 days after therapy is initiated, provided their symptoms have resolved and their sex partners have been adequately treated.
- ✚ Persistence of pain, discomfort, and irritative voiding symptoms beyond 3 months should alert the clinician to the possibility of chronic prostatitis/chronic pelvic pain syndrome in men.
- ✚ Persons whose conditions have been diagnosed as a new STD should receive testing for other STDs, including syphilis and HIV.

2.4.6 Special Considerations (HIV Infection)

Gonococcal urethritis, chlamydial urethritis, and nongonococcal, nonchlamydial urethritis might facilitate HIV transmission. Patients who have NGU and also are infected with HIV should receive the same treatment regimen as those who are HIV negative.

3) **GENITAL ULCER DISEASE (GUD)**

Sexually active patients who have genital ulcers have either genital herpes, syphilis, or chancroid. More than one of these diseases can be present in a patient who has genital ulcers. All three of these diseases has been associated with an increased risk for HIV infection. The relative prevalence of causative organisms for genital ulcer disease varies considerably in different parts of the world and may change dramatically over time. Clinical differential diagnosis of genital ulcers is inaccurate, particularly in settings where several aetiologies are common. Clinical manifestations and patterns of genital ulcer disease may be further altered in the presence of HIV infection.

After examination to confirm the presence of genital ulceration, treatment appropriate to local aetiologies and antibiotic sensitivity patterns should be given. For example, in areas where both syphilis and chancroid are prevalent, patients with genital ulcers should be treated for both conditions at the time of their initial presentation to ensure adequate therapy in case of loss to follow-up. In areas where herpes simplex virus (HSV) is prevalent, treatment for these conditions should be included.

Laboratory-assisted differential diagnosis is rarely helpful at the initial visit, as mixed infections are common. In addition, in areas of high syphilis prevalence, a reactive serological test may reflect a previous infection and give a misleading picture of the patient's present condition.

Genital ulcer disease is one of the major STD syndromes. Syndromic management is often the most practical approach to patients with GUD, given the limitations of both clinical and laboratory diagnosis. Therefore, all patients who have genital ulcers should be used the syndromic approach because it is particularly useful for patients at high risk for disease, who may be lost to follow-up, and in resource-poor settings.



Syphilitic chancre



Chancroid ulcer showing purulent appearing base

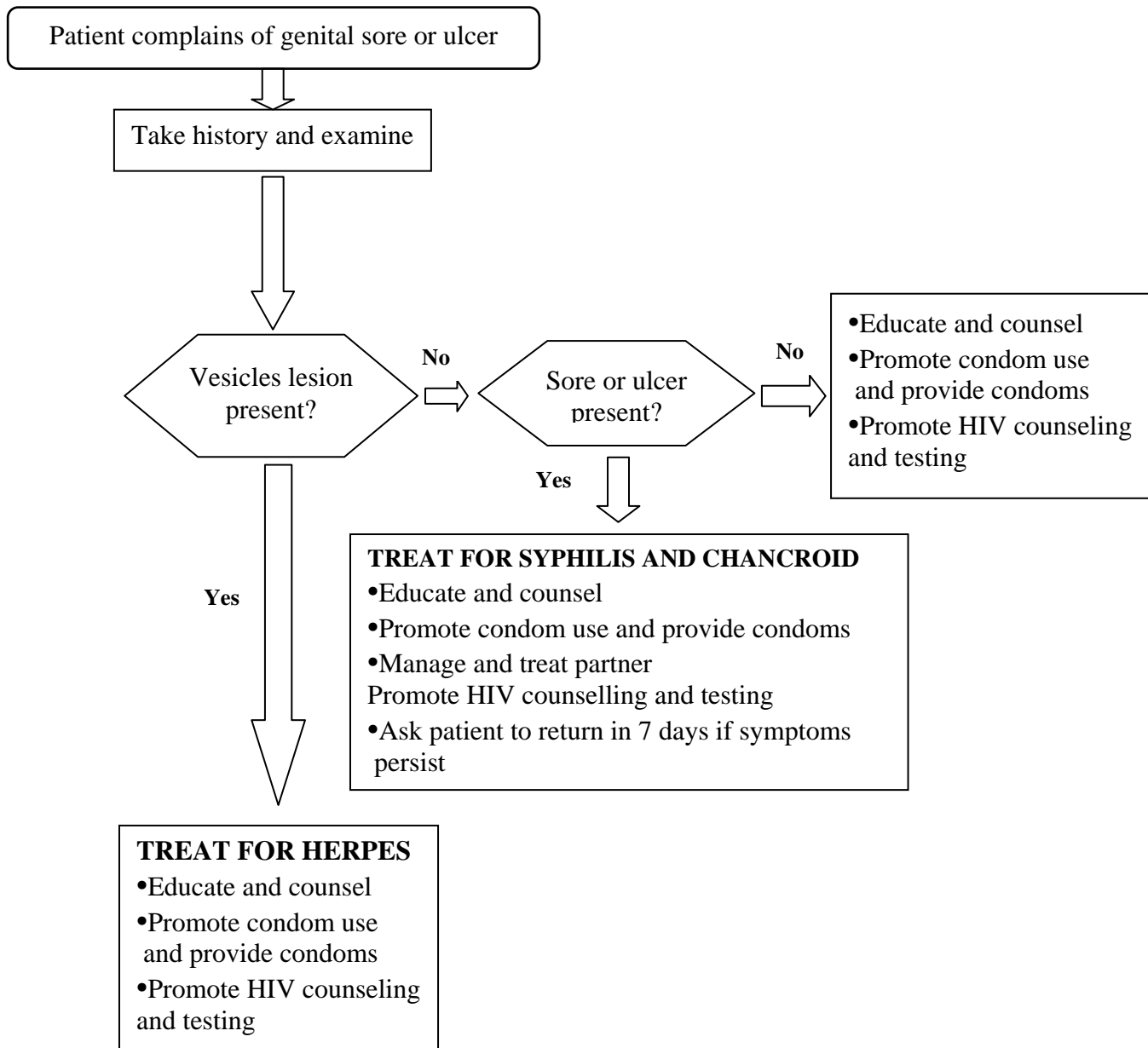


Atypical genital ulcer HSV (+)

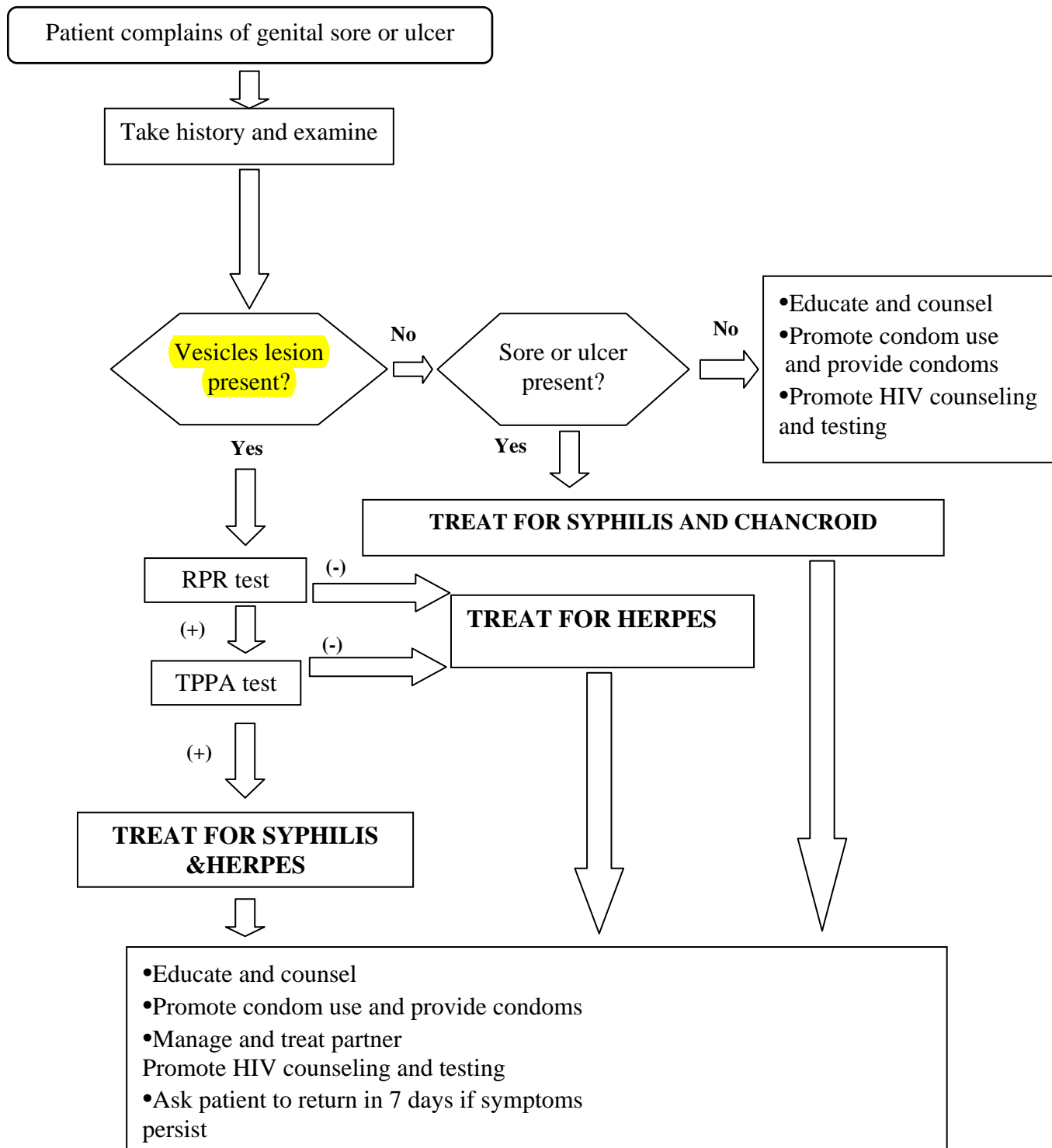


Atypical genital ulcer clinical diagnosis chancroid

3.1 GENITAL ULCER SYNDROMIC MANAGEMENT



3.2 GENITAL ULCER SYNDROMIC MANAGEMENT WITH LABORATORY



3.3 SYPHILIS

Syphilis is a sexually acquired infection caused by *Treponema pallidum*, which may become a chronic infection without treatment. Major routes of transmission are sexual and vertical (in utero from infected pregnant woman via hematogenous spread to her fetus).

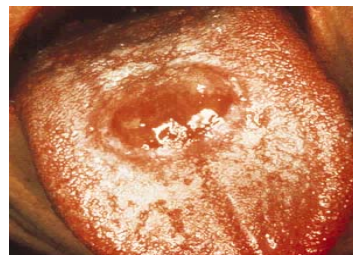
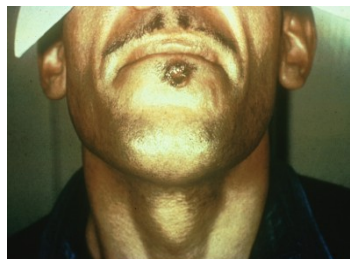
3.3.1 Incubation Period

The incubation period for primary syphilis is 10 to 90 days, with most lesions appearing within 2 to 6 weeks. The primary syphilitic lesion will heal, even without treatment, and is often followed by the rash of secondary syphilis in 1-4 months.

3.3.2 II. Clinical Manifestations

A. Primary syphilis:

1. Chancre: local lesion at the site of inoculation; progresses from macule to papule to ulcer; is typically painless, indurate, and has a clean base; up to 25% present with multiple lesions.
2. Atypical chancres may occur and can mimic herpes or chancroid.
3. Regional adenopathy: classically rubbery, painless, and bilateral.



B. Secondary Syphilis:

1. Rash (75-90%): macular, papular, squamous (scale), pustular (rare), combination; usually nonpruritic; may involve palms and soles in 60%. Any new onset macular, papular or squamous rash should be evaluated to rule out secondary syphilis.
2. Generalized lymphadenopathy (70-90%) .
3. Constitutional symptoms (50-80%), most commonly malaise.
4. Mucous patches (5-30%): flat patches involving oral cavity, pharynx, larynx, and genitals.
5. Condylomata lata (5-25%): moist, heaped, wart-like papules that occur in warm intertriginous areas (most commonly, gluteal folds, perineum, perianal); teeming with treponemes.
6. Alopecia (10-15%): patchy occipital and bitemporal, loss of lateral eyebrows.



7. Neurosyphilis (<2%): early forms of basilar meningitis or meningovascular.
8. Liver and kidney involvement, usually not clinically significant.

C. Latent syphilis:

1. No clinical manifestations. Only evidence is positive serologic test for syphilis.
2. Categories:
 - a) Early latent: the duration is less than one-year.
 - b) Late latent: the duration is more than one- year or of unknown duration.
3. Criteria for early latent syphilis:
 - a) Documented seroconversion in comparison with a serologic titer obtained within the year preceding the evaluation.
 - b) Unequivocal symptoms of primary or secondary syphilis reported by patient in past 12 months.
 - c) Contact to an infectious case of syphilis in the past 12 months.
 - d) A 4-fold increase in serologic titer in comparison with a titer within the past 12 months may represent a case of early latent syphilis or relapse of a previously treated case.
4. Relapses of secondary lesions in up to 25% of cases, usually within the first year.

D. Tertiary syphilis:

1. Late benign syphilis: gummatous lesions may occur in skeletal, spinal, and mucosal areas, eyes, and viscera (lung, stomach, liver, genitals, breast, eyes, brain, and heart); average onset 10-15 years after infection. The destructive lesions can clinically mimic carcinoma.
2. Cardiovascular syphilis: pathological lesion is endarteritis of aortic vasovasorum; clinically presents as ascending aortic aneurysm, aortic insufficiency; coronary ostial stenosis; average appearance at about 20-30 years after infection.

E. Neurosyphilis:

1. Central nervous system invasion occurs early in infection in 30-40% of patients; however most patients eventually clear this site of infection with conventional therapy.
2. Asymptomatic neurosyphilis can occur at any stage. Early forms of neurosyphilis usually occur a few months to a few years after infection. Clinical manifestations include acute syphilitic meningitis.

3. Late forms of neurosyphilis usually occur decades after infection and are rarely seen. Clinical manifestations of parenchymatous involvement include general paresis and tabes dorsalis.
4. Ocular involvement can also be early or late. Uveitis may be the most common early presentation.

F. Congenital syphilis:

1. Transmission to the fetus can occur during any stage of maternal syphilis, but risk is much higher with primary and secondary syphilis during pregnancy.
2. Fetal infection can occur during any trimester of pregnancy.
- 3 Treatment of the mother during the last month of pregnancy cannot be considered adequate treatment for the fetus.
4. Early lesions in infants (<2 years old) are usually inflammatory and may involve skin, including bullous and/or exudative lesions, mucous membranes with snuffles (chronic nasal discharge), alopecia, generalized lymphadenopathy, meningitis, osteitis or osteochondritis, or hepatosplenomegaly. Hematologic abnormalities may include thrombocytopenia and anemia.
5. Late lesions (older than 2 years): Interstitial keratitis is most common. VIII nerve deafness, bone and teeth involvement (saber shins, mulberry molars, Hutchinson incisors) are less common.

3.3.3 Diagnosis

A. History:

1. History of syphilis.
2. Known contact to an early case of syphilis.
3. Typical signs or symptoms of syphilis in the past 12 months..
4. Most recent serologic test for syphilis.

B. Physical examination:

Physical examination of oral cavity, lymph nodes, skin of torso, palms and soles. ect.

C. Laboratory:

1. Identification of *Treponema pallidum* in lesions on tissue based on Darkfield microscopy, direct fluorescent antibody - *T. pallidum* (DFA-TP).
2. Serological tests:
 - A. Nontreponemal tests: VDRL (Venereal Disease Research Laboratory), RPR (Rapid Plasma Reagin), TRUST (Toluidine Red Unheated Serum Test), USR (Unheated Serum Reagin)

B. Treponemal test: TP-PA (*Treponema pallidum* Particle Agglutination), FTA-ABS (Fluorescent Treponemal Antibody-Absorbed).

3. Other tests: DNA amplification test (PCR) is not available, Captia EIA:

Sensitivity of serological tests in untreated syphilis

| Stage of Disease, Percent Positive | | | | |
|------------------------------------|-------------|-----------|-------------|--|
| Test | Primary | Secondary | Latent | Tertiary |
| VDRL/RPR | 78 (74-87) | 100 | 95 (88-100) | 71 (37-94) |
| FTA-Abs | 84 (70-100) | 100 | 100 | 96 |
| Treponemal Agglutination TP-PA | 84 (84-100) | 100 | 100 | [TP-PA has not been tested but most likely has a similar performance to the FTA-Abs] |

Serologic Pitfalls in the Diagnosis of Syphilis

- Negative nontreponemal test may occur early in primary or late in tertiary - check FTA-ABS or TP-PA
- Prozone phenomenon: false negative due to lack of agglutination with high antibody levels - dilute serum and recheck
- Serofast: persistent, low-level positive titer after adequate treatment

3.3.4 Treatment

1- Primary, secondary, early latent:

✚ Benzathine penicillin G 2.4 million units IM.

Non-pregnant, penicillin-allergic:

✚ Doxycycline 100 mg, orally twice daily for 14 days,

Pregnant, penicillin-allergic

✚ Erythromycin 500mg, orally four times daily for 14 days

Some experts recommend that HIV-infected persons with primary, secondary, or early latent syphilis be treated with benzathine penicillin G 2.4 million units IM at 1-week intervals for 3 weeks.

2- Late latent & tertiary without neurologic involvement:

✚ Benzathine penicillin G 2.4 million units IM weekly for 3 consecutive weeks.

Non-pregnant, penicillin-allergic:

- ✚ Doxycycline 100 mg, orally twice daily for 28 days,

Pregnant, penicillin-allergic

- ✚ Erythromycin 500mg, orally four times daily for 28 days

3. Neurosyphilis:

- Aqueous crystalline penicillin G 18-24 million units IV daily for 10-14 days, **or**
- Procaine penicillin G 2.4 million units IM daily plus probenecid 500 mg, orally four times daily, both for 10-14 days.

3.3.5 Management of Sex Partners

Sexual transmission of *T. pallidum* occurs only when mucocutaneous syphilitic lesions are present; such manifestations are uncommon after the first year of infection. However, persons exposed sexually to a patient who has syphilis in any stage should be evaluated clinically and serologically and treated with a recommended regimen, according to the following recommendations:

- Persons who were exposed within the 90 days preceding the diagnosis of primary, secondary, or early latent syphilis in a sex partner might be infected even if seronegative; therefore, such persons should be treated presumptively.
- Persons who were exposed >90 days before the diagnosis of primary, secondary, or early latent syphilis in a sex partner should be treated presumptively if serologic test results are not available immediately and the opportunity for follow-up is uncertain.

3.3.6 Other Management Considerations

All patients who have syphilis should be tested for HIV infection. In geographic areas in which the prevalence of HIV is high, patients who have primary syphilis should be retested for HIV after 3 months if the first HIV test result was negative.

Follow-Up

Non-treponemal test titers might decline more slowly for persons who previously had syphilis. Patients should be reexamined clinically and serologically 6 months and 12 months after treatment.

3.4 CHANCROID

An acute infection manifested by deep genital ulceration and by the frequent occurrence of inguinal adenopathy and bubo formation. The etiologic agent is *Haemophilus ducreyi*; a Gram-negative coccobacillus. Transmission is exclusively via sexual contact.

3.4.1 INCUBATION PERIOD

Chancroid usually develops 3 to 10 days after exposure to *Haemophilus ducreyi*.

3.4.2 CLINICAL MANIFESTATIONS

Males:

- ulcer/inguinal swelling or
- Pain, rarely as urethral discharge,
- Bubo formation.

Females:

- Dysuria, pain, bleeding, vaginal discharge,
- Vulvo-vaginal ulcers.
- Systemic symptoms generally absent.

1- The ulcer:

- Single or multiple.
- Begins as a papule, which ulcerates within 24 hours.
- Typically "soft", i.e., not indurated vs. indurated ulcer in syphilis.
- Usually painful vs. generally painless ulcer in syphilis.
- Generally has ragged borders with undetermined edges that are deep, punched out, and have a necrotic base.
- Ulcer base is generally purulent.

2-Lymphadenopathy: often (40-50%) but not always present; may occur after ulcer resolves.



Chancroid
Multiple Penile Ulcers



Chancroid
Multiple vulvo-vaginal Ulcers

3-Bubo:

-Suppurative, tender lymphadenopathy vs. non-tender, “rubbery” nodes in syphilis.

-Often a sterile abscess.

3.4.3 DIFFERENTIAL DIAGNOSIS

1. Syphilis: singular hypoesthetic clean ulcer.
2. Genital herpes. Painful, usually multiple, Immunocompromised patients (ulcers large and necrotic).
3. Lymphogranuloma venereum: tender bubo but primary lesion not distinctive.
4. Other: Behcet's disease, Aphthosis major, Trauma.

3.4.4 COMPLICATIONS:

1. Destructive ulcers.
2. Bubo rupture; fistula formation, scarring with phimosis.
3. Autoinoculation from infected pus.

3.4.5 DIAGNOSIS

A. Clinical presentation: presence of bubo in association with painful genital ulcers strongly suggest a diagnosis of chancroid.

B. Diagnostic tests:

1. Gram-stain (“railroad ties”: short Gram-negative rods); sensitivity low; requires experienced microscopist (not available in Cambodia).
2. Selective media for culture is the gold standard. It may have a sensitivity of 40-80% and is not commercially available.
3. Serology: not useful for diagnosis in individual cases.
4. PCR: not available.

C. Other considerations: perform darkfield microscopy to rule out syphilis and an appropriate test for HSV.

D. Specimen collection: a sterile swab is rolled across the base of a genital ulcer. Crusting and excess pus should be wiped away, which may precipitate bleeding.

3.4.6 TREATMENT

Recommended treatment:

1. Azithromycin, 1 gm, orally as a single dose.
2. Ceftriaxone, 250 mg IM once.
3. Ciprofloxacin, 500 mg po b.i.d. x 3 days.
4. Erythromycin base, 500 mg po t.i.d. x 7 days.

Buboes may require drainage by aspiration if large or painful, or for diagnostic purposes. Note that buboes may appear to worsen in the 1-2 days following therapy. Buboes may need additional antibiotic therapy for resolution.

3.5 GENITAL AND PERIRECTAL HERPES SIMPLEX VIRUS INFECTION

Genital herpes is a chronic, life-long viral infection. Two types of HSV have been identified, HSV-1 and HSV-2. The majority of cases of recurrent genital herpes are caused by HSV-2 although HSV-1 might become more common as a cause of first episode genital herpes. The majority of persons infected with HSV-2 have not been diagnosed with genital herpes. Many such persons have mild or unrecognized infections but shed virus intermittently in the genital tract. The majority of genital herpes infections are transmitted by persons unaware that they have the infection or who are asymptomatic when transmission occurs.

3.5.1 Clinical Manifestations

1. Primary (initial) infection: without treatment: characteristic picture is that of multiple lesions that are more severe, last longer, and have higher titers of virus than recurrent infections. Start as papules → vesicles → pustules → ulcers → crusts → healed. Illness lasts 2-4 weeks.

a) Often associated with systemic symptoms, including fever, headache, malaise, myalgia (40% men, 70% women); urinary retention in 10% of women.

b) Systemic symptoms peak within 3-4 days of onset of lesions and gradually recede over the next 3-4 days.



c) Local symptoms are predominantly pain (95%), itching, dysuria (60%), vaginal (85%) or urethral (30%) discharge, and tender inguinal adenopathy (80%).

d) Painful genital lesions that are numerous and bilateral

e) Inguinal adenopathy are firm, nonfluctuant, and tender to palpation. Suppuration is rare.



f) Primary HSV cervicitis occurs in ~90% of primary HSV-2 infection and ~70% of primary HSV-1 infections. It may manifest as a mucopurulent cervicitis, or it may be asymptomatic. The cervix will appear abnormal to inspection in the majority of cases, with ulcerative lesions, erythema, or friability. Clinical differentiation from gonorrheal or chlamydial cervicitis may be difficult, although cervical ulceration may suggest HSV.

2. Recurrent infection without treatment

a) Prodromal symptoms (localized tingling, irritation) in ~50% begin 12-24 hours before lesions and sometimes without lesions ("false prodrome").

b) Duration is shorter than in primary infection: painful genital lesions last 4- 6 days; average duration of viral shedding 4 days.

c) Symptoms usually there are no systemic symptoms.

d) Rate of cervical virus shedding in women is 12-20%.

e) Average of 2-6 recurrences/year

f) HSV-2 primary infection is much more prone to recur than HSV-1 primary

3. Asymptomatic viral shedding

a) Most HSV-2 is transmitted during asymptomatic shedding.

b) Asymptomatic shedding is of briefer duration than during clinical recurrences.

c) Rates of asymptomatic shedding are greater with HSV-2 than HSV-1.

d) Vulva and perianal areas in women and penile skin and perianal area in men are the most common sites of asymptomatic shedding.

4. Recurrent infections

Most patients with a first-episode of genital HSV-2 infection will have recurrent episodes of genital lesions. Episodic or suppressive antiviral therapy will shorten the duration of genital lesions. Because many patients benefit

from antiviral therapy, options for treatment should be discussed with all patients. When treatment is started during the prodrome or within 1 day after onset of lesions, many patients who have recurrent disease benefit from episodic therapy. If episodic treatment of recurrences is chosen, the patient should be provided with antiviral therapy, or a prescription for the medication, so that treatment can be initiated at first sign of prodrome or genital lesions.

5. Herpes in pregnancy

During the first clinical episode of genital herpes, treat with oral acyclovir. Vaginal delivery in women who develop primary genital herpes shortly before delivery puts babies at risk for neonatal herpes. Babies born to women with recurrent disease are at very low risk. Genital cultures late in pregnancy are poor predictors of shedding during delivery. Careful history and physical examination serve as a guide to the need for caesarean section in mothers with genital herpes lesions.




6. Herpes and HIV co-infection



In people whose immunity is deficient, persistent and/or severe mucocutaneous ulcerations may occur, often involving large areas of perianal, scrotal or penile skin. The lesions may be painful and atypical, making a clinical diagnosis difficult. The natural history of herpes sores may become altered. Most lesions of herpes in HIV infected persons will respond to acyclovir, but the dose may have to be increased and treatment given for longer than the standard recommended period. Subsequently, patients may benefit from chronic suppressive therapy. In some cases the patients may develop thymidine-kinase deficient mutants for which standard antiviral therapy becomes ineffective. The recommended regimen in severe herpes simplex lesions with co-infection with HIV is acyclovir 400mg orally 3-5 times daily until clinical resolution is attained.

3.5.2 Complications of genital infection:

- Aseptic meningitis
- Stomatitis and pharyngitis.
- Disseminated (viremic) infection
- Ocular involvement (more common with HSV-1).
- Radicular pain, sacral paresthesias.
- Myelitis.

3.5.3 Diagnosis

-  Viral culture (gold standard)
-  Antigen detection (DFA or EIA)
-  Cytology (Tzank or Pap)

-  PCR highly sensitive and specific.
-  Serologic tests

3.5.4 Treatment


A - FIRST CLINICAL EPISODE

 Cyclovir, 200 mg orally, 5 times daily for 7 days.


OR

 Acyclovir, 400 mg orally, 3 times daily for 7 days

OR

 Famciclovir, 250 mg, 3 times daily for 7 days


OR

 Valaciclovir, 1 g, 2 times daily for 7 days

B - RECURRENT INFECTIONS

 Acyclovir, 200mg orally, 5 times daily for 5 days

OR

 Acyclovir 400mg 3 times daily for 5 days

OR

 Acyclovir 800mg orally twice daily for 5 days


OR

 Famciclovir 125mg orally twice daily for 5 days


OR

 Valaciclovir 500mg orally twice daily for 5 days

OR

 Valaciclovir 1000mg orally once daily for 5 days

C - TREATMENT FOR NEONATES

 Acyclovir, 10 mg/kg intravenously three times a day, for 10-21 days.

4) VAGINAL DISCHARGE

Vaginal discharge is any fluid that leaves a woman's body through the vagina. Some vaginal discharge is normal for all women, especially those in their reproductive years (15 to 44). When the amount, quality or consistency of vaginal discharges changes, it may be a sign of disease or irritation. The vagina contains a balanced, slightly acidic combination of certain bacteria, mucus, yeast and other organisms. This combination is called the vaginal flora. When in balance, they help to clean the vagina and protect it from outside organisms. Any change the component of vaginal flora affects the natural balance and may affect vaginal discharge. Changes may originate from both internal factors (hormonal changes or stress) or from external factors (infection or poor hygiene).

Normal vaginal discharge is clear or white with no bad odor. It has regular fluctuations that result from hormonal changes occurring throughout the menstrual cycle. The **normally clear and thin fluid** becomes a **bit thicker and heavier** at the time of **ovulation**. **Sexual excitement** increases vaginal discharge. It also changes during **pregnancy**, at **menopause** and when a woman use **birth control pills**. Change in the color, odor or consistency of vaginal discharge may indicate an infection such as **Yeast infections, Trichomoniasis, Bacterial vaginosis, Sexually transmitted diseases**.

A spontaneous complaint of abnormal vaginal discharge is most commonly due to a vaginal infection. Rarely, it may be the result of muco-purulent STI-related cervicitis. *T. vaginalis*, *C. albicans* and bacterial vaginosis are the commonest causes of vaginal infection and *N. gonorrhoeae* and *C. trachomatis* cause cervical infection. The clinical detection of cervical infection is difficult because a large proportion of women with gonococcal or chlamydial cervical infection is asymptomatic. The symptom of abnormal vaginal discharge is highly indicative of vaginal infection, but poorly predictive for cervical infection. Thus, all women presenting with vaginal discharge should receive treatment for trichomoniasis and bacterial vaginosis.

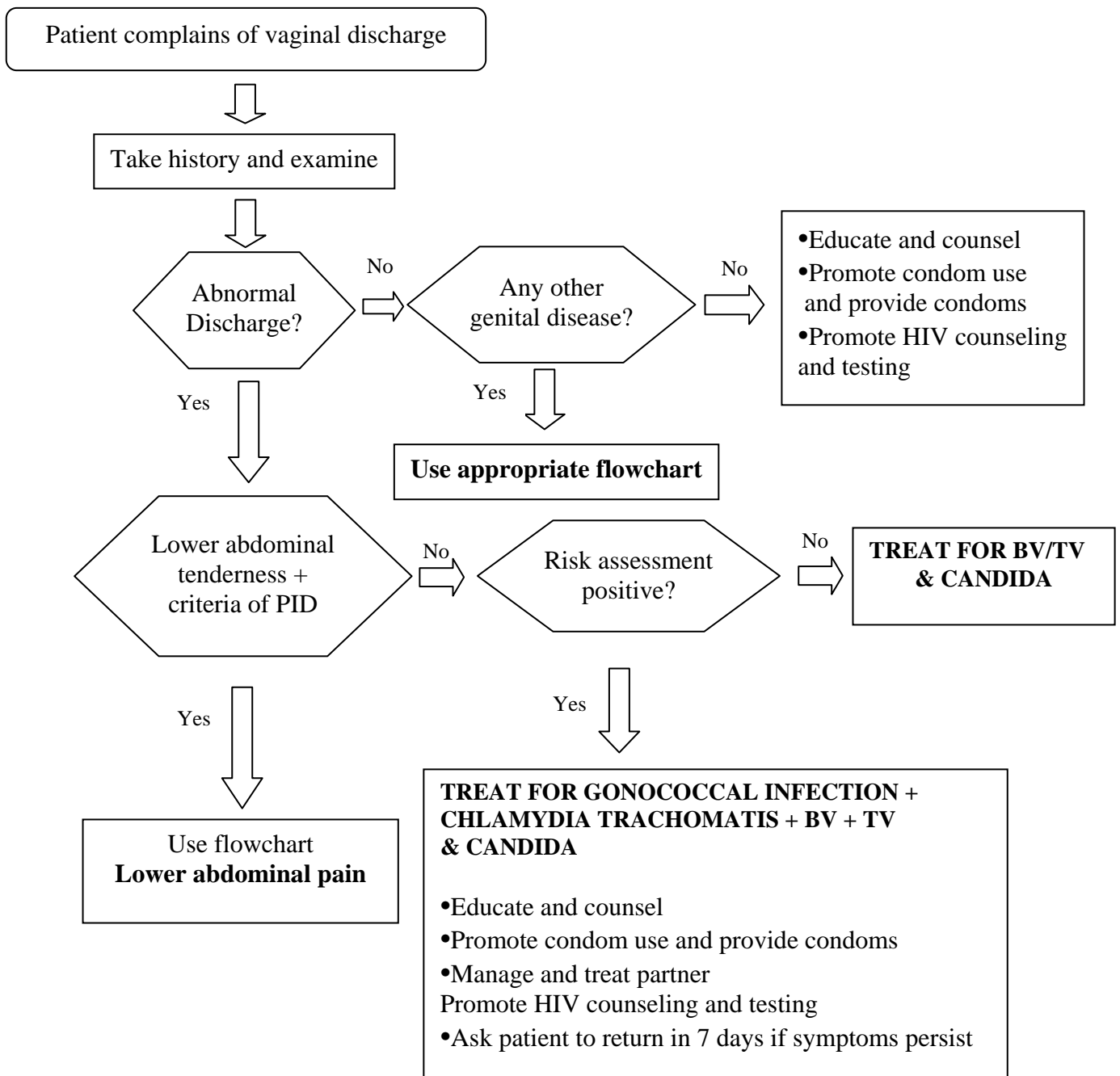
Microscopy adds little to the diagnosis of cervical infection and is not recommended. To identify women at greater risk of cervical infection, an assessment of a woman's risk status is useful, especially when risk factors are adapted to the local situation. Women with vaginal discharge and a positive risk assessment could therefore, be offered treatment for gonococcal and chlamydia cervicitis. Where resources permit, one could consider the use of laboratory tests to screen women with vaginal discharge. Such screening could be applied to all women with discharge or selectively to those with discharge and a positive risk assessment. In some countries, syndromic management algorithms have been used as a screening tool to detect cervical infection among women not presenting with a genital complaint (e.g. in family planning settings). While this may assist in detecting some women with cervical infections, it is likely that there will be substantial over-diagnosis.

Risk assessment for low risk population :

- 1- The patient has been complaining of a muco-purulent discharge.**
- 2- Partner has symptoms of STI**

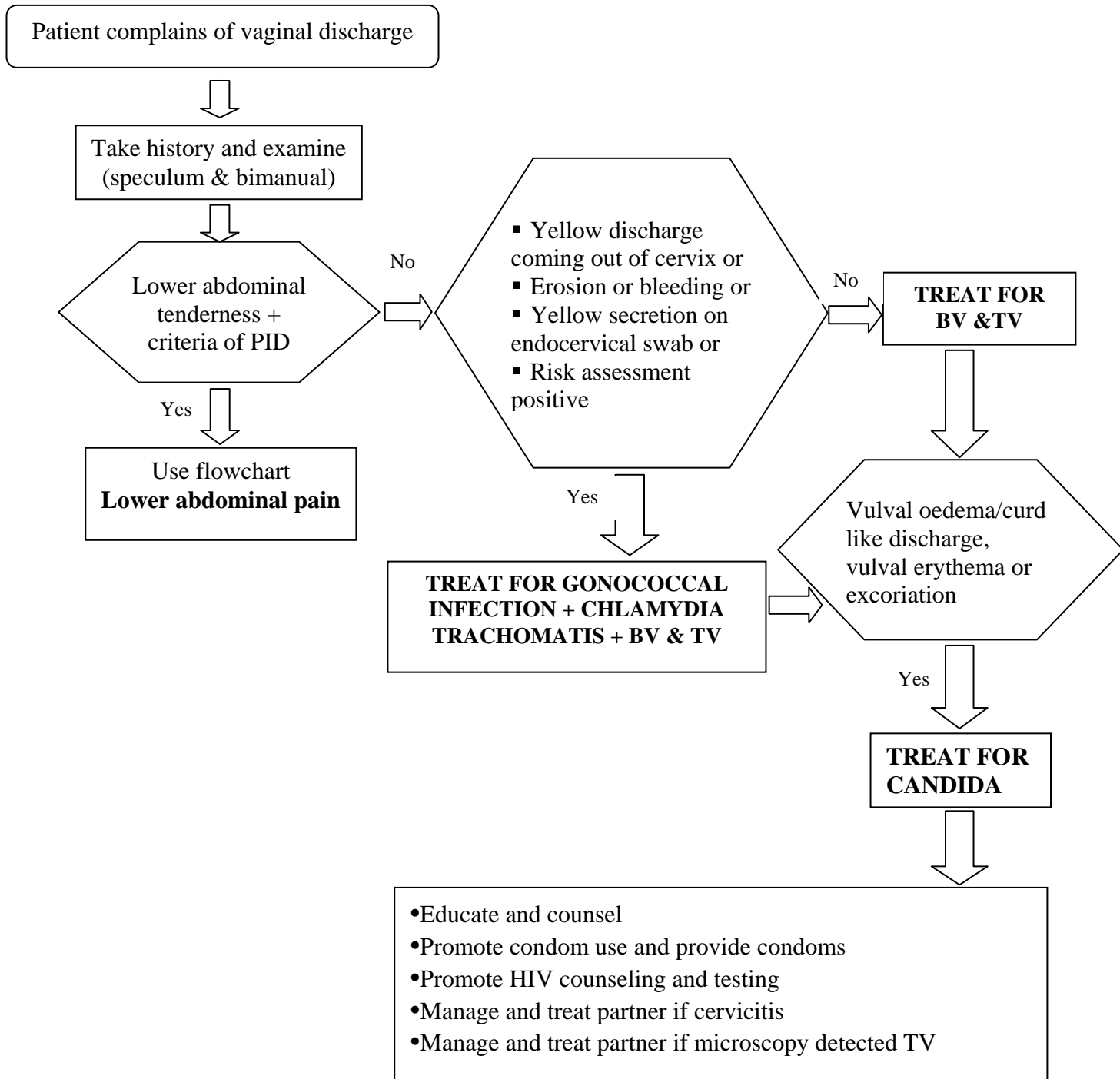
The risk assessment is positive if the answer is 'yes' to one or two questions.

VAGINAL DISCHARGE SYNDROMIC MANAGEMENT



* BV: Bacterial vaginosis,
* TV: Trichomonas vaginalis

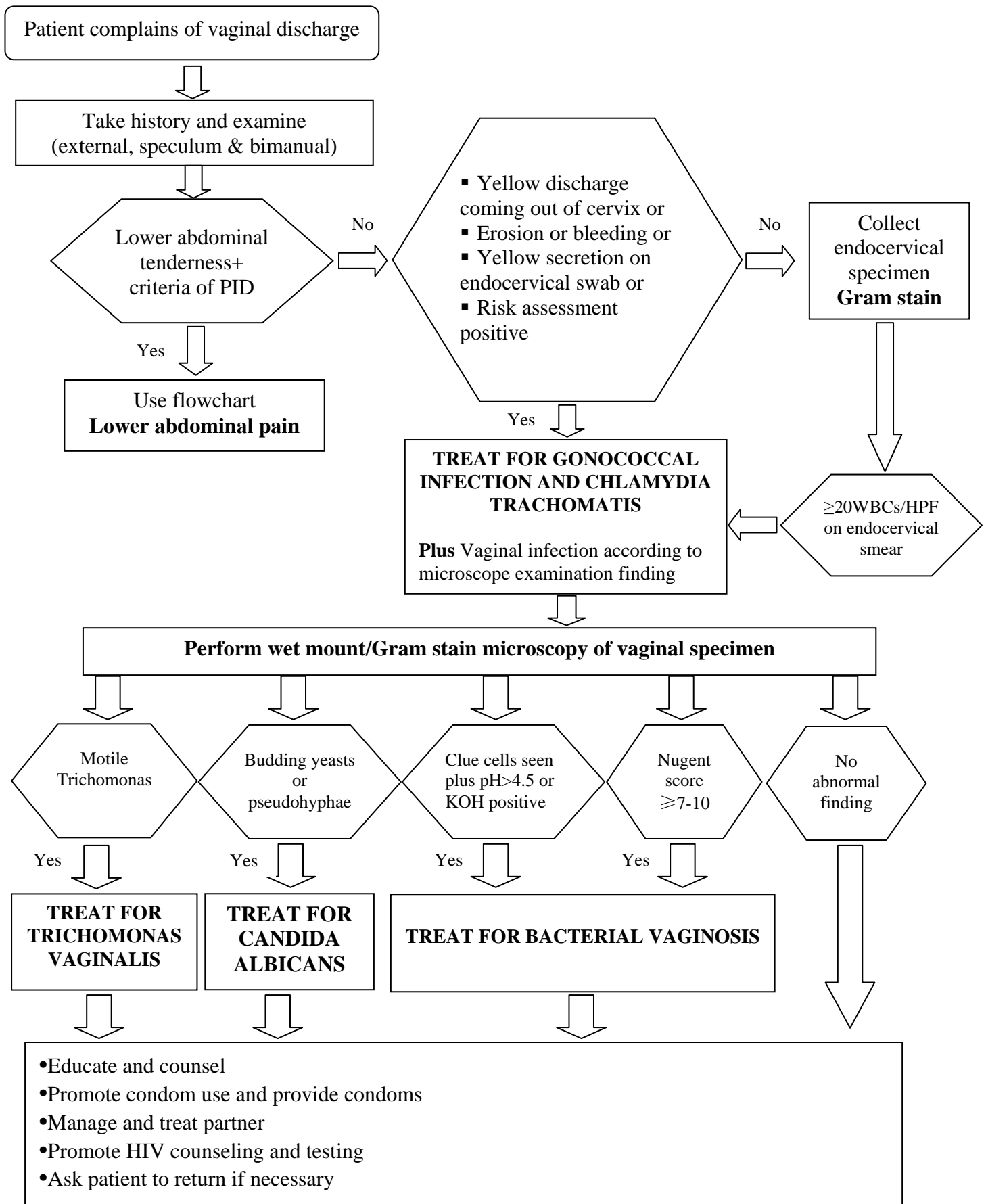
VAGINAL DISCHARGE MANAGEMENT BASED ON BIMANUAL & SPECULUM EXAMINATION
(No laboratory)



* BV: Bacterial vaginosis,

* TV: Trichomonas vaginalis

VAGINAL DISCHARGE MANAGEMENT BASED ON BIMANUAL & SPECULUM & MICROSCOPE



4.1 MANAGEMENT OF STIs IN FEMALE SEX WORKERS

4.1.1 Background

Syndromic management of STI/RTI in sex workers is not different from syndromic management of STD/RTI in symptomatic female patients, except for Vaginal Discharge. The risk assessment originally introduced in WHO's Vaginal Discharge flow-chart to improve its specificity, therefore reducing unnecessary treatment, is not applicable to sex workers. The Vaginal Discharge flowchart developed by the STI/RTI unit & Intervention Unit at ITM shows three innovations.

1) Systematic endocervical smear is recommended when the sex worker attends the health service for the first time and follow up, if asymptomatic. There are two reasons for doing so.

A) Data from the 1996 National STD prevalence survey showed that 35% of sex workers were infected with gonorrhoea and 22% with Chlamydia.

B) Ample evidence from the literature indicates that cervical infection is frequently asymptomatic, including in sex workers.

2) A specific risk score has been developed for sex workers, based on data from studies in Abidjan, Côte d'Ivoire, and Dakar, Senegal. This risk score has been adapted to the Cambodian context and should eventually be validated.

3) Systematic treatment of syphilis is also recommended at the sex worker's first visit to the health service, in case RPR is positive. The 1996 survey had shown that 19% were seroreactive for syphilis (both VDRL and TPHA positive) without record of any genital ulceration.

4.1.2 Flowcharts

1. Flowcharts # 1 show the management of vaginal discharge without laboratory support. Flowcharts # 2 include simple laboratory techniques, such as RPR testing and direct microscopy.

2. Sex workers are invited to present routinely at the health service on a monthly basis.

4.1.3 Instructions for the use of vaginal discharge management flowcharts

I. Flowchart # 1 (Without laboratory support)

In this case, regardless of the patient's complaints, the healthcare provider opens a new medical history and collects socio-demographic data as well as information on her past and present work situation (see annex, copy of the questionnaire, MedHist-SW.doc). After completing the medical history in case of new episode, the healthcare provider will assess the risk for cervical infection based on four simple questions about her complaints and risk behaviour. .

1. Systematic treatment is administered for cervical infection and syphilis following the national treatment guidelines.

2. A pelvic examination with speculum will then be performed. The healthcare provider should carefully examine the external genitalia (with clean latex gloves) for the presence of genital ulcer(s). A speculum will then be inserted for the examination of the vagina and cervix. Any ulceration or abnormal vaginal secretion should be looked for. The patient will be treated according to the clinical signs encountered. In the case of vaginitis (Trichomonas vaginalis/bacterial vaginosis or Candida albicans), the patient is treated according the national treatment guidelines. In the case of genital ulceration, the patient should receive the treatment for chancroid in addition to medication she already received for syphilis. Single dose drugs should ideally be administered at the clinic.

3. The patient should always receive IEC. The main messages refer to 1) the need to take the full course of medication and 2) the need to use condoms on a consistent basis. 3) The patient will also be invited to come back to the consultation as soon as she complains of a new episode of vaginal discharge, and in any case she will be recommended to come back for a routine check-up after 1 month. The healthcare provider should also ensure that the patient knows how to use condoms properly, and that she has access to a regular condom supply.

4. All relevant information (complaints, clinical observations, diagnosis and treatment) is entered in the standard medical history.

Risk assessment for direct sex worker and entertainment worker

- 1) The patient has been complaining of a thick yellow discharge since her last visit**
- 2) The patient experiences pain when having sexual intercourse**
- 3) The patient has more than five clients per day (on average)**
- 4) The patient has unprotected sex with new clients.**

The risk assessment is positive if the answer is ‘yes’ to two or more questions.

In such a case, the patient must be treated for cervicitis, regardless of signs and symptoms. If the answer is ‘Yes’ only to one question or zero, the treatment will depend on the clinical signs detected at the speculum examination. A pelvic examination with speculum will then be performed. The healthcare provider should carefully examine the external genitalia (with clean latex gloves) for the presence of genital ulcer(s). A speculum will then be inserted for the examination of the vagina and cervix. Any ulceration or abnormal vaginal secretion should be looked for. The cervix will then be cleaned and inspected for the presence of mucopurulent cervical discharge or cervical erosion. If no sign is observed, a sterile cotton swab will be inserted into the cervical os and examined for the presence of yellow pus and/or cervical friability (defined as frank bleeding from the cervical os or a bloodstained swab after taking the endocervical specimen.). Finally the healthcare provider will perform a bimanual palpation. The patient will be treated for any clinical problem encountered, according to the national treatment guidelines. Single dose drugs should ideally be administered at the clinic. In addition, the patient should always receive IEC. The main messages refer to:

1) The need to complete the course of medication.

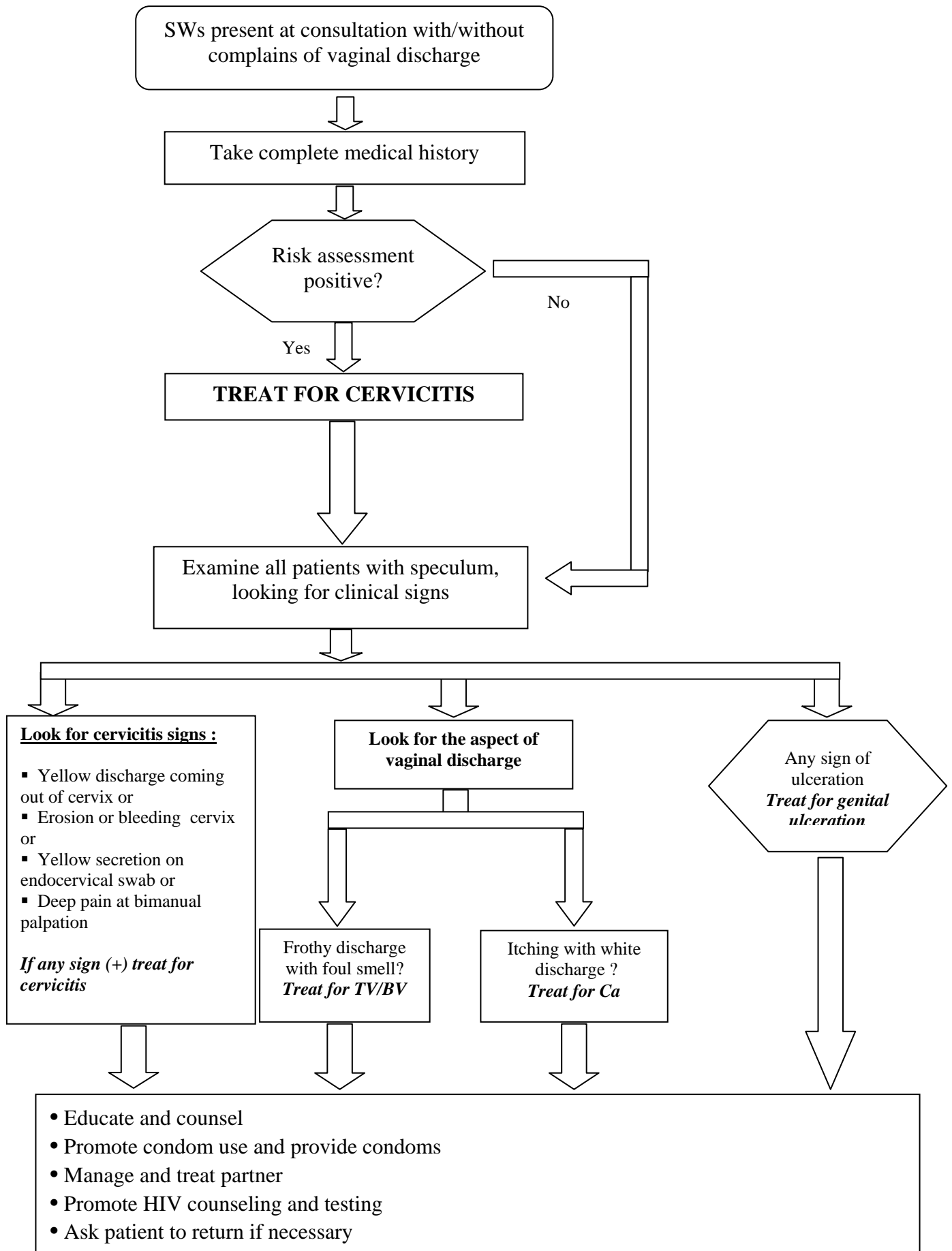
2) The need to use condoms systematically.

3) The patient will also be invited to come back to the consultation as soon as she complains of a new episode of vaginal discharge, and in any case after one month. The healthcare provider should also ensure that the patient knows how to use condoms properly, and that she has access to a regular condom supply. All relevant information will be entered in the medical history.

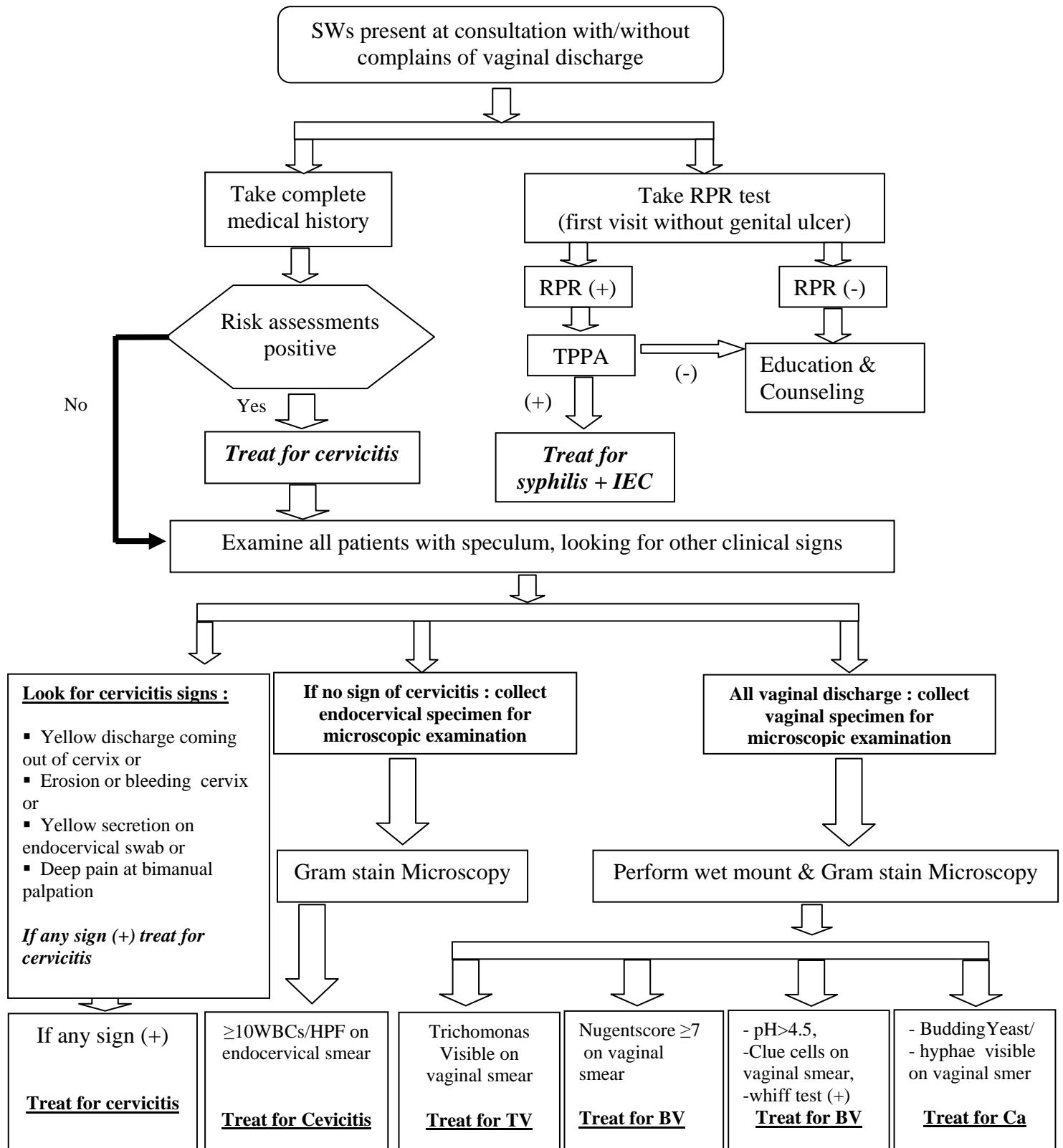
II. Flowchart # 2 (With simple laboratory support)

When the patient comes to the consultation for the 1st time, a complete medical history must be obtained, including personal data and information on past and present work. A blood sample will be drawn for immediate RPR testing. If the RPR test turns out positive should be reconfirmed by TPPA, If TPPA positive, the patient will be treated for syphilis. If the TPPA negative, the patient will be not treated for syphilis. In case the RPR is negative, but the healthcare provider detects a genital ulceration, the patient will be treated for both chancroid and syphilis, since a syphilitic ulceration can be associated with a negative serology. The sex worker will then be examined with speculum for other possible pathologies, and treated according to the clinical and microscopic findings. She systematically will be done for endocervical smear on direct microscopy to detect white blood cells (WBC), in case asymptomatic. The detection of 10 or more white blood cells per high power field (WBC/HPF) is an additional criterion for the detection of cervicitis. If the result are positive should be treated for cervicitis, following the national treatment recommendations. The IEC messages should be conveyed to the patient as described in the previous section. All relevant information (including laboratory findings) will be entered in the standard medical history.

CLINICAL EXAMINATION FOR SEX WORKERS WITHOUT LABORATORY



CLINICAL EXAMINATION FOR SEX WORKERS WITH LABORATORY



4.2 CERVICITIS

Inflammatory process in cervical epithelium and stroma which, when caused by certain infectious agents, can result in an ascending infection of the upper genital tract. Clinically, mucopurulent cervicitis (MPC) is characterized by a yellow or green endocervical exudates visible in the endocervical canal or on an endocervical swab specimen.

4.2.1 Etiology

1. Infectious, including STDs:

- a) *Neisseria gonorrhoeae* (GC).
- b) *Chlamydia trachomatis* (CT).
- c) Herpes simplex virus (HSV).
- d) *Trichomonas vaginalis*.
- e) *Treponema pallidum* (rare)
- e) Other possible etiologies:
Mycoplasma genitalium,
Ureaplasma urealyticum..



Gonococcal Cervicitis

2. Non-infectious

- a) Neoplasia.
- b) Trauma (mechanical).
- c) Chemical irritant (douching, spermicides).
- d) Systemic inflammatory disease (Behcet's syndrome).



Cervical erosions due to *Chlamydia trachomatis*

4.2.2 Clinical Manifestations

A. Symptoms:

1. Frequently is asymptomatic infection but some women complain of:
2. Abnormal vaginal discharge of any color or consistency.
3. Abnormal bleeding, especially after sexual intercourse.
4. Dysuria (infection of the urethra).

B. Signs on physical examination:

1. Endocervicitis:

- a) Mucopurulent (green, yellow, or opaque) discharge visible in endocervical canal or on an endocervical swab specimen.

b) Endocervical bleeding easily ("friability"). induced by gentle passage of a cotton swab through the cervical os.

c) Polymorphonuclear leukocytes (PMNs) on Gram stain of endocervical secretions (some experts consider an increased number of PMNs >20 PMNs/high power field).

2. Ectocervicitis:

a) Edematous ectopy.

b) General erythema.

c) Discrete lesions (ulcers, erosions).

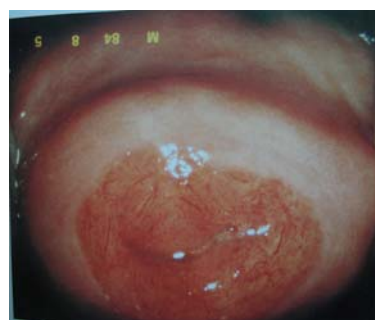
d) Cervical petechia- "strawberry cervix" seen with 1-2% of women with vaginal trichomoniasis (up to 45% if examined by colposcopy); always accompanied by vaginitis.



Normal Cervix with ectopy



Strawberry cervix



Cervical Discharge and ectopy

4.2.3 Diagnosis

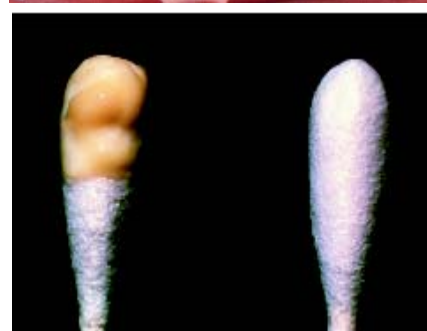
1. Wipe mucus away from ectocervix, then observe for mucopurulent endocervical discharge, erythema, ulceration, edema, edematous ectopy.

2. Swab test: insert white cotton-tip swab into the os (i.e., endocervix); positive is yellow or green pus on swab, negative = cloudy or clear mucus; friability is blood on swab.

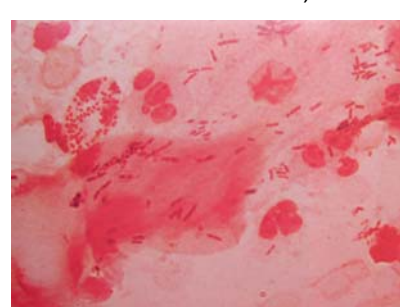
3. Gram stain of endocervical secretions showing PMNs >20 PMNs/HPF.

4. A finding of >10 WBC in vaginal fluid, in the absence of trichomoniasis, might indicate endocervical inflammation caused specifically by *C. trachomatis* or *N. gonorrhoeae*.

5. NAAT for *C. trachomatis* and *N. gonorrhoeae* are preferred for the diagnostic



Positive swab test)



evaluation of cervicitis and can be performed on either cervical or urine samples.

4.2.4 Treatment

1-*Gonococcal Cervicitis*

- ✚ Cefixime, 400 mg orally, as a single dose **OR**
- ✚ Ceftriaxone, 125 mg by intramuscular injection, as a single dose **OR**
- ✚ Spectinomycin, 2 g by intramuscular injection, as a single dose.

Plus

2- *Chlamydial Cervicitis*

- ✚ Azithromycin, 1 g orally, in a single dose OR
- ✚ doxycycline, 100 mg orally, twice daily for 7 days OR
- ✚ Erythromycin, 500 mg orally, four times a day for 7 days

3- *Follow-Up*

Follow-up should be conducted as recommended for the infections for which a woman is treated. If symptoms persist, women should be instructed to return for reevaluation.

4.2.5 Management of Sex Partners

1. Management of sex partners of women treated for cervicitis should be appropriate for the identified or suspected STD. Partners should be notified, examined, and treated for the STD identified or suspected in the index patient.
2. Patients and their sex partners should abstain from sexual intercourse until therapy is completed (i.e., 7 days after a single-dose regimen or after completion of a 7-day regimen).

4.2.6 Special Considerations (HIV Infection)

Patients who have cervicitis and also are infected with HIV should receive the same treatment regimen as those who are HIV negative.

4.3 VAGINITIS

Vaginitis is usually characterized by a vaginal discharge or vulvar itching and irritation; a vaginal odor may be present. The three common diseases associated with vaginal infection include trichomoniasis (15-20%), bacterial vaginosis (40-45%), and vulvovaginal candidiasis (20-25%). Other causes of vaginal discharge or irritation include mucopurulent cervicitis caused by *Chlamydia trachomatis* or *Neisseria gonorrhoeae*, or herpes simplex virus, atrophic vaginitis, allergic or irritant reactions

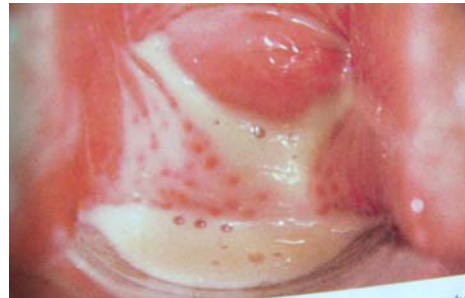
(spermicides, deodorants, minipad adhesive), vulvar vestibulitis, lichen simplex chronicus and lichen sclerosis (especially pruritis) and foreign bodies (retained tampons). Trichomoniasis and bacterial vaginosis increase susceptibility to HIV acquisition.

4.3.1 TRICHOMONAS VAGINALIS INFECTIONS

The flagellated protozoan, *T. vaginalis*, is almost exclusively sexually transmitted in adults. The infection may be asymptomatic. Symptomatic trichomoniasis presents with offensive vaginal discharge and vulval itching in women, and urethritis in men.

A. Clinical Manifestations

1. "Frothy" gray or yellow-green vaginal discharge.
2. Pruritus.
3. Cervical petechiae ("strawberry cervix")



B. Diagnosis

1. Vaginal pH >4.5 often present.
2. Positive amine (KOH) test ("whiff" test) in many cases.
3. Motile trichomonads seen in saline wet mount (usual mode of diagnosis). White blood cells are frequently seen. Saline microscopy should be performed as soon as possible after obtaining the specimen.
4. Culture (Diamond's media or InPouch TV) is more sensitive than wet mount.
5. For suspected trichomoniasis in males, first-void urine concentrated and examine for motile trichomonads; urethral swab or 10 cc of first-void urine may also be obtained for culture



T. vaginalis motile organisms seen in wet prep

C. Trichomoniasis in pregnancy

There is increasing evidence of an association between infection with *T. vaginalis* and adverse pregnancy outcomes (e.g. premature rupture of the membranes, low birth weight).

D. Neonatal infections

Infants with symptomatic trichomoniasis or with urogenital colonization persisting past the fourth month of life should be treated with Metronidazole.

E. Treatment

Metronidazole (95% cure rate):

Non Pregnancy:

- ✚ Recommended: metronidazole 2.0 gm po as one-time single dose.
- ✚ Alternate regimen: metronidazole 500 mg b.i.d. for 7 days.

Pregnancy:

- ✚ Metronidazole 2.0 gm one time in single dose. No evidence of teratogenicity; treatment may be administered throughout pregnancy.

Neonatal

- ✚ Metronidazole 5 mg/kg orally, 3 times daily for 5 days.

Trichomonas vaginalis urethritis

- ✚ Metronidazole, 400 or 500 mg orally, twice daily for 7 days

OR

- ✚ Tinidazole, 500 mg, orally twice daily for 5 days.

Treatment failures:

- ✚ Repeat standard single-dose treatment regimen (metronidazole 2.0 g one time).
- ✚ Assure treatment of sex partners.
- ✚ Metronidazole 500 mg b.i.d. for 7 days if used 2 g one-time single dose initially.

4.3.2 CANDIDIASIS

A - VULVOVAGINAL CANDIDIASIS

In the majority of cases, vulvo-vaginal candidiasis is caused by candida albicans (*C. albicans*). Up to 20% of women with the infection may be asymptomatic. If symptom occur, they usually consist of vulval itching, soreness and non-offensive. Pregnancy, oral contraceptive use, menstruation, antibiotic use, corticosteroid use, diabetes mellitus, and immunosuppression, including HIV infection, are all factors predisposing to candidiasis and should be recorded in the patient.s history.

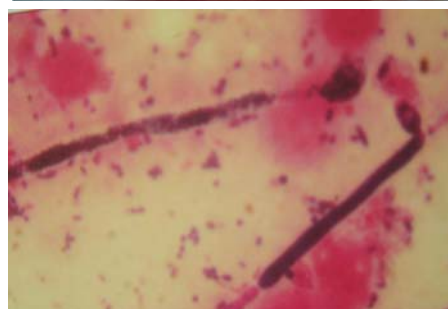
Vulvo-vaginal candidiasis usually is not acquired through sexual intercourse. Although treatment of sexual partners is not recommended it may be considered for women who have recurrent infection. A minority of male sex partners may have balanitis, which is characterised by erythema (redness) of the glans penis.

a. Clinical Manifestations

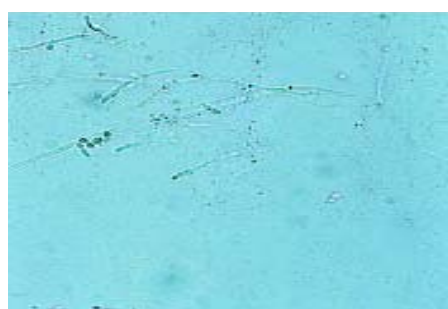
- Thick, white, curdy vaginal discharge ("cottage-cheese-like").
- Vulvar pruritus, erythema, irritation.
- External dysuria.

b. Diagnosis

- Clinical presentation and symptoms.
- Visualization of pseudohyphae (mycelic) and/or budding yeast (conidia) on 10% KOH examination (preferred), saline wet mount, or Gram stains.
- pH usually <4.5. If pH is abnormally high >4.5, consider concurrent BV or trichomoniasis.
- Cultures not useful for routine diagnosis,
- DNA probe is available but expensive.



Gram stained smear of vaginal discharge showing gram-positive yeasts and mycelia



Yeast seen in 10% KOH wet prep

B - VULVOVAGINAL CANDIDIASIS IN PREGNANCY

Although there are now some effective single dose oral treatments, they are not known to be safe or effective. Only topical azoles should be used to treat pregnant women. Of those treatments that have been investigated for use during pregnancy, the most effective are miconazole, clotrimazole, butoconazole and terconazole.

C - VULVOVAGINAL CANDIDIASIS AND HIV INFECTION

Candidiasis at several sites, including the vulva and vagina, is an important correlate of HIV disease. It is often quite severe and frequently relapses. Prolonged treatment is generally required, and chronic suppressive therapy is frequently employed.

D - RECURRENT VULVOVAGINAL CANDIDIASIS (RVVC)

RVVC, usually defined as four or more episodes of symptomatic VVC in 1 year, affects a small percentage of women (<5%). The pathogenesis of RVVC is poorly understood, and the majority of women with RVVC have no apparent predisposing or underlying conditions. Vaginal cultures should be obtained from patients with RVVC to confirm the clinical diagnosis and to identify unusual species, including nonalbicans species, particularly *Candida glabrata* (*C. glabrata* does not form pseudohyphae or hyphae and is not easily recognized on microscopy). *C. glabrata* and other nonalbicans *Candidia* species are observed in 10%–20% of patients with RVVC. Conventional antimycotic therapies are not as effective against these species as against *C. albicans*.

E - TREATMENT

FOR CANDIDIASIS

- CLOTRIMAZOLE* 500 mg intravaginally, as a single dose OR
- MICONAZOLE* or clotrimazole* 200 mg intravaginally daily for 3 days OR
- FLUCONAZOLE 150 mg orally, as a single dose

Alternative regimen:

- NYSTATIN 200,000 IU intravaginally daily x 14 days

FOR RECURRENT VULVOVAGINAL CANDIDIASIS

Each individual episode of RVVC caused by *C. albicans* responds well to short duration oral or topical azole therapy. However, to maintain clinical and mycologic control, some specialists recommend a longer duration of initial therapy (e.g., 7–14 days of topical therapy or a 100 mg, 150 mg, or 200 mg oral dose of fluconazole every third day for a total of 3 doses (day 1, 4, and 7) to attempt mycologic remission before initiating a maintenance antifungal regimen.

Maintenance Regimens

Oral fluconazole (i.e., 100-mg, 150-mg, or 200-mg dose) weekly for 6 months is the first line of treatment. If this regimen is not feasible, some specialists recommend topical clotrimazole 200 mg twice a week, clotrimazole (500-mg dose vaginal suppositories once weekly), or other topical treatments used intermittently.

4.3.3 BACTERIAL VAGINOSIS

Bacterial vaginosis is a clinical syndrome resulting from replacement of the normal hydrogen peroxide (H₂O₂)-producing *Lactobacillus* sp. in the vagina with high concentrations of anaerobic bacteria, such as *G. vaginalis* and *Mycoplasma hominis*. The cause of the microbial alteration is not fully understood. Whereas trichomoniasis is a sexually transmitted infection, bacterial vaginosis is an endogenous reproductive tract infection. Treatment of sexual partners has not been demonstrated to be of benefit. It is recommended that predisposing factors such as the use of antiseptic/antibiotic vaginal preparations or vaginal douching be reduced or eliminated. Additional studies are needed to confirm the relationship between an altered vaginal microflora and the acquisition of HIV.



Thin homogenous

A. Clinical Manifestations

a. 50% report malodorous vaginal discharge, sometimes reported more commonly after unprotected vaginal intercourse and after completion of menses.

b. 50% asymptomatic: May have increased discharge, and vaginal pruritus may or may not be present.



Clue cells

B. Diagnosis

a. Amsel criteria: must have at least three of the following findings:

1. Vaginal pH >4.5 (most sensitive but least specific).

2. Presence of "clue cells" on wet mount examination (bacterial clumping upon the borders of epithelial cells). Clue cells should constitute at least 20% of all epithelial cells

3. Positive amine or "whiff test" (liberation of amines with or without the addition of 10% KOH, with resultant "fishy" odor).

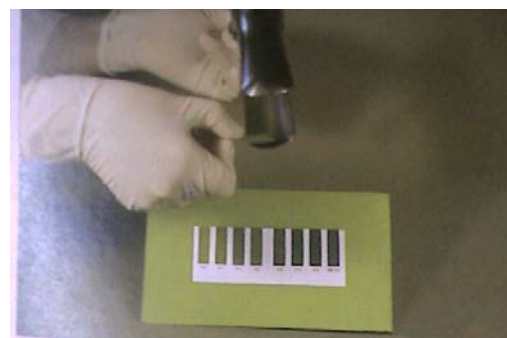
4. Homogeneous, non-viscous, milky-white discharge adherent to the vaginal walls.



Amine odor

b. Some experts use vaginal Gram stain to diagnose BV (Nugent criteria).

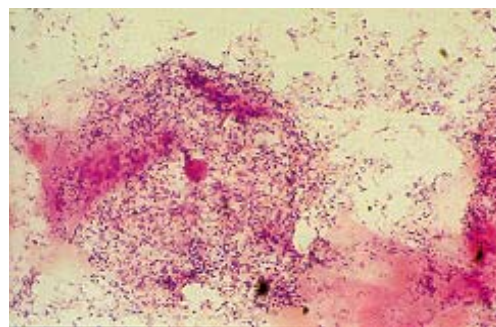
A normal Gram stain shows predominantly *Lactobacillus* bacteria. When a more mixed flora is present



Vaginal pH > 4.5

(Gram-positive cocci, small Gram-negative rods, curved Gram variable rods) and *Lactobacillus* absent or present in low numbers, the smear is interpreted Nugent score ≥ 7 .

Gram stained smear of vaginal discharge showing Nugent score ≥ 7



C. Bacterial vaginosis in pregnancy

There is evidence that bacterial vaginosis is associated with an increased incidence of adverse pregnancy outcomes (e.g., premature rupture of membranes, pre-term delivery and low birth weight). Symptomatic pregnant women should be treated, and those with a history of previous pre-term delivery should be screened to detect asymptomatic infections. Pregnant women with recurrence of symptoms should be re-treated. Screening of asymptomatic pregnant women without a history of prior pre-term delivery is not recommended. Metronidazole is not recommended for use in the first trimester of pregnancy, but it may be used during the second and third trimesters. Lower doses of metronidazole are recommended throughout pregnancy, to reduce the risks of any adverse effects.

D. Treatment

✚ Metronidazole, 400 or 500 mg orally, twice daily for 7 days

Note: Patients taking metronidazole should be cautioned not to consume alcohol while they are taking the drug and up to 24 hours after taking the last dose.

✚ Metronidazole, 2 g orally, as a single dose

OR

✚ Clindamycin vaginal cream 2%, 5 g at bedtime intravaginally for 7 days

OR

✚ Metronidazole gel 0.75%, 5 g twice daily intravaginally for 5 days

OR

✚ Clindamycin, 300 mg orally twice daily for 7 days.

Follow-up

Patients should be advised to return if symptoms persist as re-treatment may be needed.

PREGNANCY

✚ Metronidazole, 200 or 250 mg orally three times daily for 7 days.

Alternative regimens

- ✚ Metronidazole, 2 g orally, as a single dose **OR**
- ✚ Clindamycin, 300 mg orally twice daily for 7 days

VAGINAL DOUCHING

A vaginal douche is a process of washing or cleaning out the vagina by forcing water or another solution into the vaginal cavity to flush away vaginal discharge or other contents. Usually douches are prepackaged mixes of water and vinegar, baking soda, salted water, lemon juice, tooth paste, or iodine.. etc.



Why Women Use Vaginal Douches

Women douche because they mistakenly believe it gives many benefits. In reality, douching may do more harm than good. Common reasons women give for using douches include:

- Douching is a practice that is thought to have been around since ancient times.
- Reasons women have given for using:
 - To clean the vagina
 - To rinse away any remaining menstrual blood at the end of the monthly period.
 - Some women douche following sexual intercourse to avoid pregnancy or sexually transmitted diseases.
 - Douching is neither a contraceptive, or preventative measure against STDs or other infections.
 - To reduce vaginal odors. Women who have an unusual vaginal odor need to see their clinician for proper diagnosis, using a douche may only intensify the problem.



Problems of douching (Is Douching Healthy?)

Regular vaginal douching changes the delicate chemical balance of the vagina and can make a woman more susceptible to infections. Douching can introduce new bacteria into the vagina which can spread up through the cervix, uterus, and fallopian tubes. Researchers have found that women who douche regularly experience more vaginal irritations and infections such as bacterial vaginosis, and an increased number of sexually transmitted diseases.

Furthermore, regular users of vaginal douches face a 73% greater risk of developing pelvic inflammatory disease (PID) -- a chronic condition that can lead to infertility, if left untreated. Bacterial vaginosis and PID can have serious adverse affects on pregnancy including infections in the baby, labor problems, and preterm delivery.

For these reasons, douching is no longer recommended as a safe or healthy way to routinely clean the vagina..

 **How does the vagina clean itself?**

The vagina cleans itself naturally with its own mucous secretions. When bathing or showering use warm water and gentle unscented soap to cleanse the outer areas of the vagina. Feminine hygiene products such as soaps, powders, and sprays are not necessary and may lead to irritation of sensitive tissues.

 **Conclusion**

- The vagina cleans itself in a natural way.
- Women who want to feel fresh can gently clean their vulva with water or water with soap, but there is no need to wash inside the vagina.
- Douching is harmful, because of the risk for lower or upper genital tract infection.
- Douching shortly before the consultation at the STI clinic also makes diagnosis of existing infection more difficult or impossible.
- Health care providers, including outreach workers should make these issues clear to general population, especially, brothel owners and sex workers.

VAGINITIS*: DIFFERENTIATING Bacterial Vaginosis, Candidiasis, and Trichomoniasis

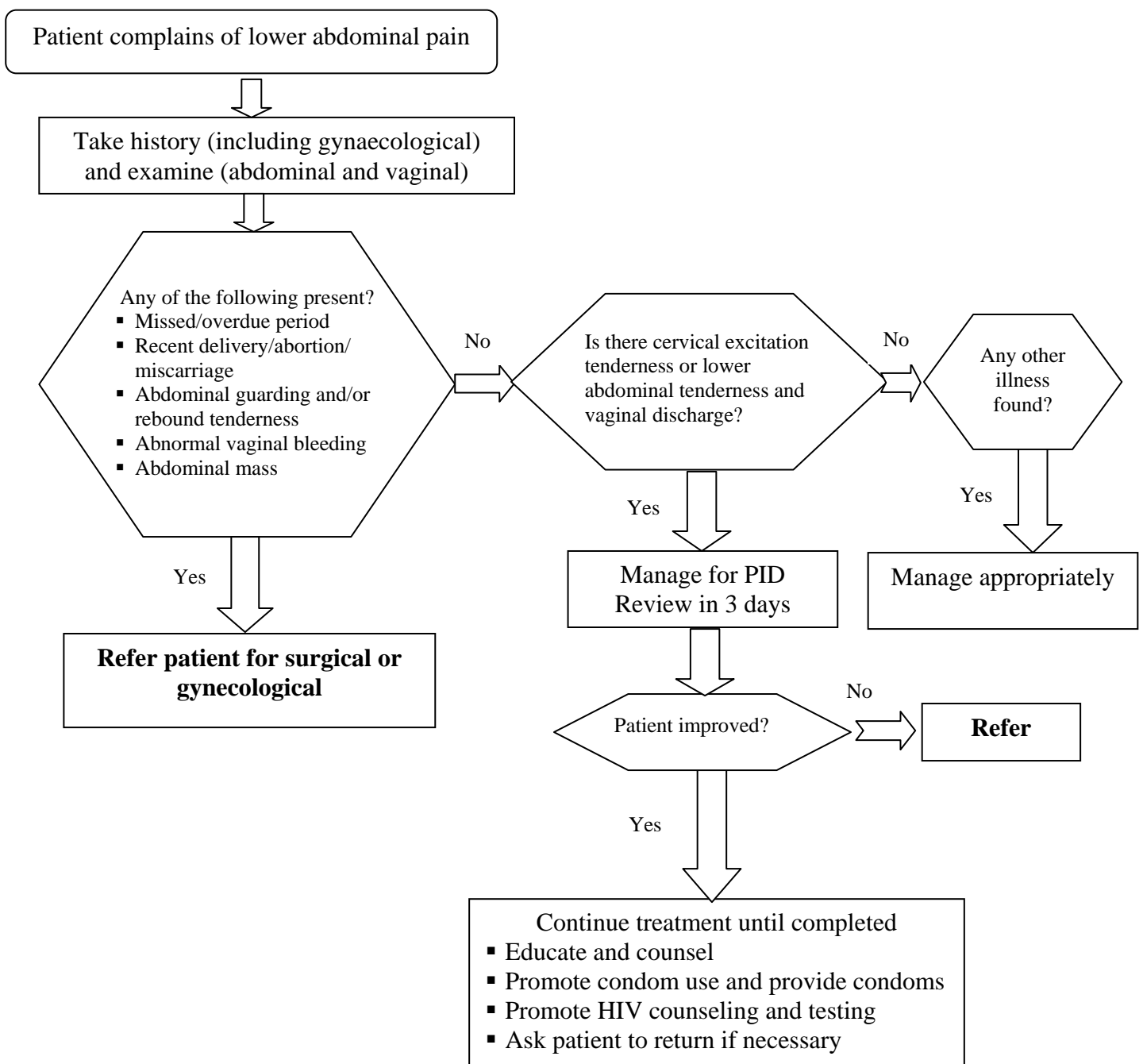
| | Normal | Bacterial Vaginosis | Candidiasis | Trichomoniasis |
|-----------------------------------|----------------|--|--|---|
| Symptoms/ Presentation | | Odor, discharge, itch | Itch, discomfort, dysuria, thick discharge | Itch, discharge, 50% asymptomatic |
| <i>Vaginal Discharge</i> | Clear to white | Homogenous, adherent, thin, milky-white; malodorous “foul fishy” | Thick, clumpy, white “cottage cheese” | Frothy, gray or yellow-green; malodorous |
| <i>Clinical Findings</i> | | | Inflammation and erythema | Cervical petechiae “strawberry cervix” |
| Vaginal pH | 3.8-4.2 | >4.5 | Usually ≤4.5 | >4.5 |
| KOH “whiff test” | Negative | <i>Positive</i> | Negative | Often positive |
| NaCl Wet Mount | Lacto-bacilli | <i>Clue cells (≥20%), no/few WBCs</i> | Few WBCs | <i>Motile flagellated protozoa, many WBCs</i> |
| KOH Wet Mount | | | <i>Pseudohyphae or spores if non-albicansspecies</i> | |

* Note that this table includes only three of the more common causes of vaginitis.

5) PELVIC INFLAMMATORY DISEASE (PID)

All sexually active women presenting with lower abdominal pain should be carefully evaluated for the presence of salpingitis and/or endometritis – pelvic inflammatory disease (PID). In addition, routine bimanual and abdominal examinations should be carried out on all women with a presumptive STI since some women with PID or endometritis will not complain of lower abdominal pain. PID is difficult to diagnose because clinical manifestations are varied. PID becomes highly probable when one or more of the above symptoms are seen in a woman with adnexal tenderness, evidence of lower genital tract infection, and cervical motion tenderness. Enlargement or induration of one or both fallopian tubes, a tender pelvic mass, and direct or rebound tenderness may also be present. The patient’s temperature may be elevated but is normal in many cases.

MANAGEMENT OF LOWER ABDOMINAL PAIN



5.1 Etiology

The most common etiologic agents in PID are *Neisseria gonorrhoeae*, *Chlamydia trachomatis*, and several anaerobic bacterial species found in the vagina, particularly *Bacteroides spp.*, anaerobic Gram positive cocci, and *E. coli*. *Mycoplasma hominis* may also be a pathogen in PID. These organisms initially cause lower genital tract infections and then spread into the upper genital tract via the endometrium. Many cases are polymicrobial in etiology, with two or more of these organisms involved.

5.2 Clinical manifestations

Symptoms suggestive of PID include

- Abdominal pain (usually bilateral and in the lower quadrants),
- Dyspareunia,
- Vaginal discharge,
- Menometrorrhagia,
- Dysuria,
- Onset of pain in association with menses,
- Fever, and sometimes nausea or vomiting.

5.3 Hospitalization

Hospitalization of patients with acute pelvic inflammatory disease should be seriously considered when:

- The diagnosis is uncertain;
- Surgical emergencies such as appendicitis and ectopic pregnancy can not be excluded;
- A pelvic abscess is suspected;
- Severe illness precludes management on an outpatient basis;
- The patient is pregnant;
- The patient is unable to follow or tolerate an outpatient regimen; or
- The patient has failed to respond to outpatient therapy.

Many experts recommend that all patients with PID should be admitted to hospital for treatment.

5.4 Diagnosis

A. CDC recommends empiric treatment of PID if these minimum criteria are met in the absence of any other explanation.

1. Uterine/adnexal tenderness; or
2. Cervical motion tenderness.

Under some circumstances, a clinician may choose to treat with even less specific findings. In patients with both pelvic tenderness and signs of lower genital tract inflammation, the diagnosis of PID should be considered. Acute adnexal tenderness may be the most sensitive sign of upper genital tract infection. The general recommendation is to err on the side of over treatment given the high incidence of adverse outcomes with untreated PID.

B. Additional criteria to increase specificity of diagnosis (but will decrease sensitivity):

1. Temp >38.3C.
2. Abnormal cervical or vaginal discharge.
3. Elevated erythrocyte sedimentation rate (ESR).
4. Gram-stain endocervical smear showing WBCs \geq 30/HPF or WBCs on microscopic evaluation of saline preparation of vaginal secretions,
5. Gonorrhea or chlamydia test positive.

5.5 Differential diagnosis

Pelvic inflammatory disease must be distinguished:

- Ectopic pregnancy,
- Ruptured ovarian cyst,
- Pyelonephritis,
- Appendicitis,

All patients in whom the diagnosis is unclear, should be referred to a gynecologist or hospital for further evaluation.

5.6 Treatment

5.6.1 OUTPATIENT THERAPY

A. FOR GONORRHEA

- ✚ CEFIXIME, 400mg orally, as a single dose OR
- ✚ CEFTRIAXONE, 250mg by intramuscular injection, as a single dose OR
- ✚ Spectinomycin, 2g by intramuscular injection, as a single dose

PLUS

B. FOR CHLAMYDIA TRACHOMATIS

- ✚ DOXYCYCLINE, 100mg orally twice daily for 14 days

PLUS

C. FOR ANAEROBIC BACTERIAL INFECTION

- ✚ METRONIDAZOLE, 500mg orally twice daily for 14 days

5.6.2 INPATIENT THERAPY

A - FOR GONORRHEA

+ CEFTRIAZONE, 250mg by intramuscular injection, once daily OR
PLUS

B - FOR CHLAMYDIA TRACHOMATIS

+ DOXYCYCLINE, 100mg orally or by intravenous injection, twice daily
PLUS

C - FOR ANAEROBIC BACTERIAL INFECTION

+ METRONIDAZOLE, 500mg orally or by intravenous injection, twice daily

Note:

- For all drug should be continued until at least two days after the patient has improved and should then followed by either doxycycline, 100mg orally, twice daily for 14 days.
- Patient taking metronidazole should be cautioned to avoid alcohol.

6) **PROCTITIS, ENTERITIS, AND PROCTOCOLITIS**

Sexually transmitted anorectal infections with syphilis, gonorrhoea, HPV (genital warts), and chlamydia (including lymphogranuloma venereum or LGV) have been recognized for many years, while infections such as shigellosis, salmonellosis, hepatitis A and B, giardiasis, and amebiasis have not been considered sexually transmitted until recently. All of these infectious diseases, as well as the syndromes of enteritis and proctitis became very common among MSM.

6.1 ETIOLOGY

The sexually transmitted organisms most commonly responsible for anorectal and enteric infections in MSM are:

6.1.1 Bacterial pathogens

- *Neisseria gonorrhoeae*
- *Chlamydia trachomatis* (including LGV serovars)
- *Haemophilus ducreyi*
- *Treponema pallidum* (syphilis)
- *Calymmatobacterium granulomatis* (granuloma inguinale)

6.1.2 Enteric bacterial pathogens

- *Campylobacter* sp.
- *Salmonella* spp.
- *Shigella* spp.
- *Yersinia* spp.

6.1.3 Protozoa

- *Giardia lamblia*
- *Entamoeba histolytica*
- *Cryptosporidia* sp.
- *Dientamoeba fragilis* (?)
- *Isospora belli* sp.
- *Microsporidia*

6.1.4 Viruses

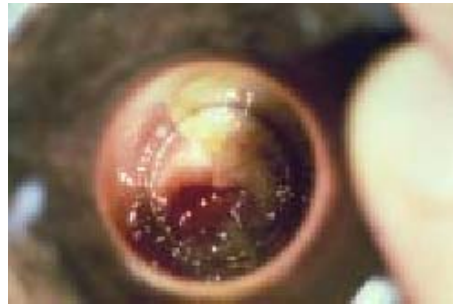
- *Herpes simplex virus (HSV)*
- *Human papillomavirus (HPV)*
- *Adenovirus*
- *Cytomegalovirus*

6.2 Clinical manifestations

Symptoms and signs of infection can vary depending on the exact location of the infection. Proctitis, proctocolitis, and enteritis generally have different infectious etiologies, so it is important to be able to distinguish these syndromes. It is also important to realize that some patients with anorectal or enteric infections may be asymptomatic, and some may have polymicrobial infections.

6.2.1 Proctitis

The term “proctitis” refers to inflammation of the rectal mucosa. Symptoms include constipation, tenesmus, rectal discomfort or pain, passage of bloody stools, and a mucopurulent rectal discharge, which is occasionally misinterpreted by the patient as diarrhea. Findings on anoscopy or sigmoidoscopy may range from normal mucosa with only mucus present to diffuse inflammation of the mucosa with friability or discrete ulcerations. If these findings are limited to the rectum, and the mucosa above 15 cm is normal, the condition is properly termed proctitis. If the mucosa is abnormal above 12 to 15 cm, then proctocolitis is present. A rectal biopsy will provide histologic confirmation of proctitis and may reveal nonspecific inflammation or changes highly suggestive of certain infections such as lymphogranuloma venereum (LGV), herpes simplex virus (HSV), or syphilis.



Proctitis due to *C. trachomatis*



Perianal chancres (syphilis)

6.2.2 Enteritis

Enteritis is an inflammatory illness of the duodenum, jejunum, and ileum, and thus sigmoidoscopy will show no abnormalities. Infectious enteritis is usually caused by ingestion of pathogens, either from fecal-oral sexual contact or via non-sexual means, for example, ingestion of contaminated food or water or fecal-oral spread via poor hygienic practices. Symptoms of enteritis consist of diarrhea, abdominal pain, bloating, cramps, and nausea. Additional symptoms may include flatulence, a mucous rectal discharge, and in severe cases, melena. Systemic symptoms such as fever, dehydration, malabsorption syndrome, weight loss, and myalgia may also be present.



Rectal HSV infection with perianal ulcers

6.2.3 Perianal lesions

Perianal lesions caused by syphilis, HSV, granuloma inguinale, chancroid, and genital warts (HPV) generally resemble the corresponding lesions as they appear elsewhere in the genital area (see Genital Ulcers). Symptomatic infection of the anal canal is commonly very painful and often results in constipation and tenesmus.

6.2.4 Pharyngeal infection

The prevalence of pharyngeal gonococcal and chlamydia infections among MSM in Asia is not known. In the absence of etiological tests for gonorrhoea and chlamydia, it is very difficult to diagnose these infections reliably. Additionally, clinicians should be aware that pharyngeal gonorrhoea can be more difficult to clear than urethral infections. It is recommended that wherever a patient is suffering from significant pharyngitis and a history of unprotected oral sex makes pharyngeal gonococcal or chlamydia infection a likely risk, patient should be treated presumptively for pharyngeal gonococcal and chlamydia infections.



Pharyngeal gonorrhoea

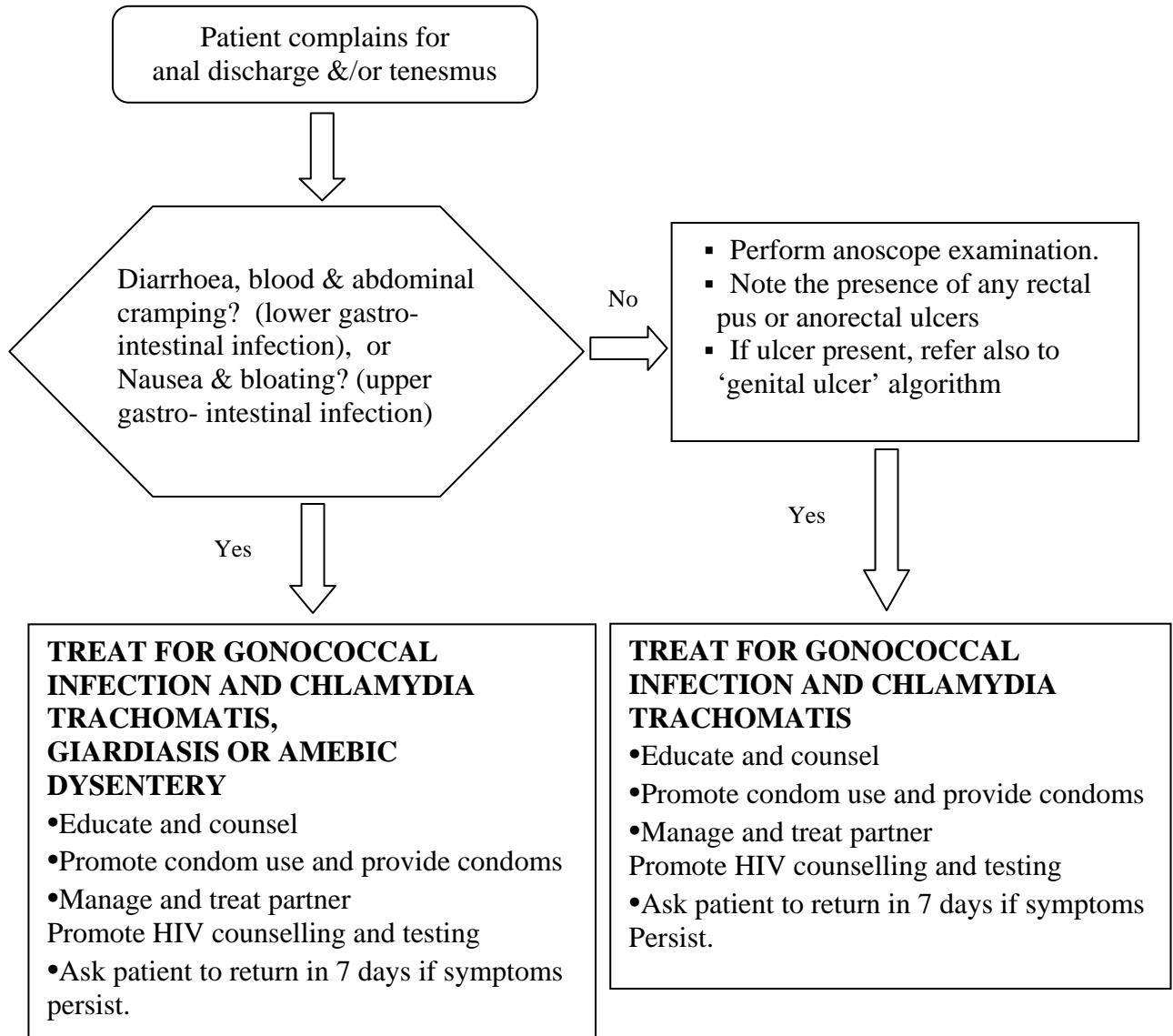
6.2.5 Management of asymptomatic STIs among MSM

The following recommendations are made for clinical strategy for asymptomatic STIs:

- All MSM should attend for an STI check up every three months. The check up would include a sexual history, examination (including external ano-genital and, if indicated proctoscopic examination as well as VCT for serological testing for HIV and syphilis). All patients practicing receptive anal sex would be offered proctoscopy.
- Symptomatic STI clients should be managed syndromically according to national guideline or protocol for ano-rectal conditions according to their presenting complaint.
- An additional approach for the detection of ano-rectal infections in asymptomatic clients is shown in flowchart below.

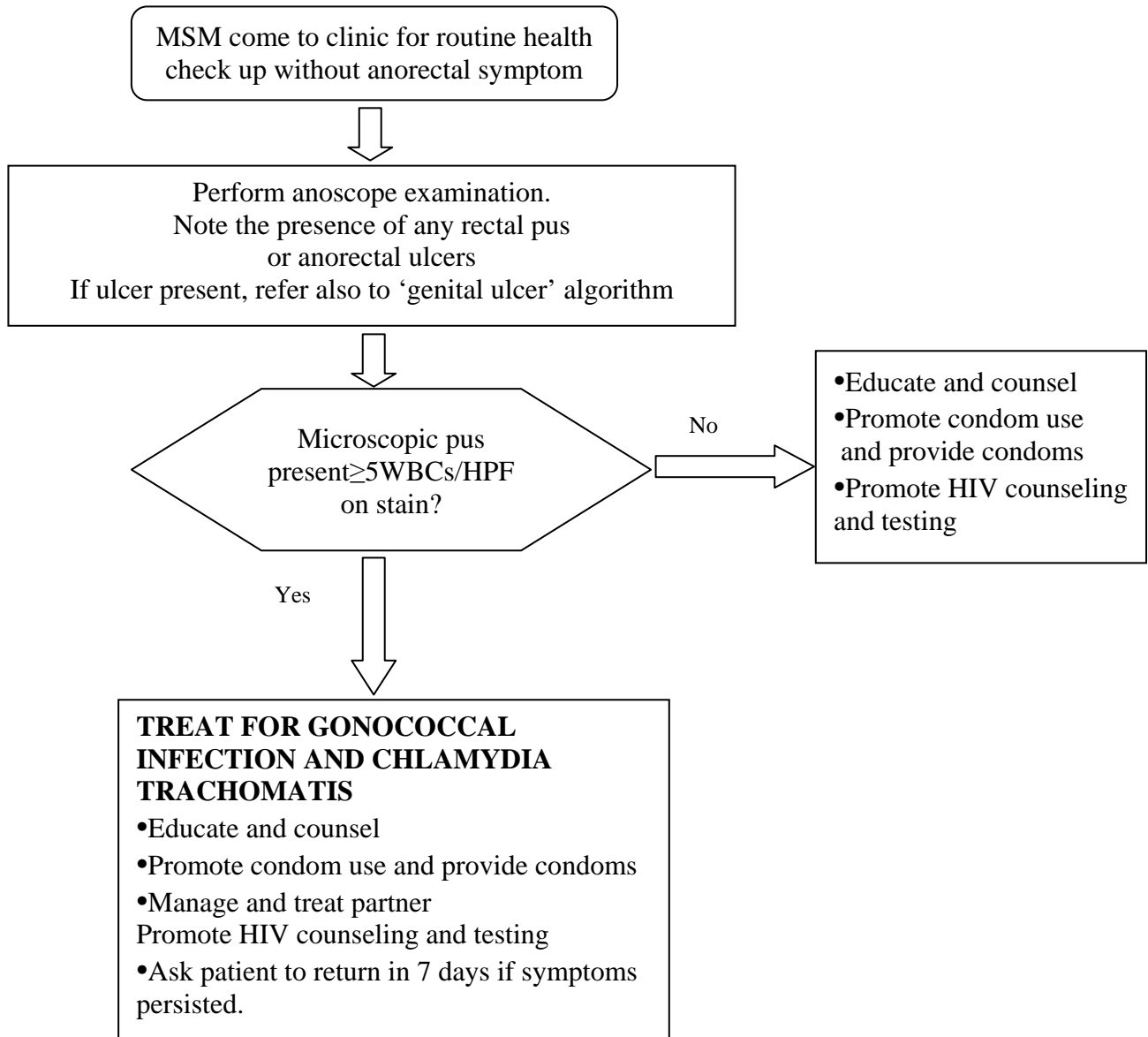
Other oro-pharyngeal STIs (e.g, herpes and warts) can often be detected by macroscopic examination.

MANAGEMENT OF SYMPTOMATIC ANORECTAL STIs



MANAGEMENT OF ASYMPTOMATIC ANORECTAL STIs

(Men who have Sex with Men)



6.3 Diagnosis

6.3.1 History and examination

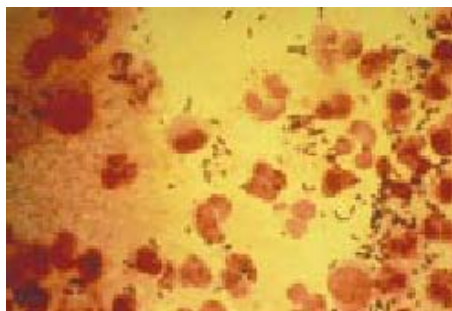
In taking the patient's history, inquire about types of sexual practices, condom use, and possible exposure to pathogens known to cause proctitis, proctocolitis, and enteritis, either through sexual practices or travel in countries with poor public health standards or poor personal hygiene.

The physical exam should include inspection of the anus and anoscopy (avoiding or minimizing use of bacteriostatic lubricants which might interfere with bacteriological studies) to identify general mucosal abnormalities. Look for friability and exudate, as well as discrete polyps, ulcerations or fissures, which should be cultured and biopsied if appropriate. In general, patients with symptoms and signs of less than 2 weeks duration can be classified into one of the three syndromes (proctitis, proctocolitis, or enteritis) based on their history and examination.

It must be remembered that infection with several pathogens may occur and that overlapping symptoms may make differentiation on clinical grounds even more difficult. Diagnostic possibilities based on clinical findings are summarized in Table 4-2.

6.3.2 Laboratory

1. Gram-stained smear of the rectal mucosa obtained during anoscopy (>5PMNs/HPF considered indicative of proctitis); cultures for *Neisseria gonorrhoeae* (GC), *Chlamydia trachomatis* (CT), and herpes simplex virus. Nucleic acid amplification tests (NAAT) are not currently approved for use on rectal specimens.



Rectal Gram stain showing intracellular Gram-negative diplococci

2. If perianal or rectal ulcers are seen, also perform:

- Serologic test for syphilis (RPR or VDRL), and
- Darkfield examination (if available).

3. If enteritis or proctocolitis are likely, based on fever, bloody diarrhea, or milder diarrheal symptoms persisting one week without diagnosis:

- Culture stool for *Salmonella*, *Shigella*, and *Campylobacter*, and
- Send stool for ova and parasites (O & P) exam.

6.4 Treatment

6.4.1 Syphilis, Chancoid, and Herpes Simplex Virus (See Chapter genital ulcer management).

6.4.2 Gonococcal Proctitis

- + Cefixime, 400 mg orally, as a single dose **OR**
- + Ceftriaxone, 250 mg by intramuscular injection, as a single dose
OR
- + Spectinomycin, 2 g by intramuscular injection, as a single dose.

Plus

6.4.3 Chlamydial Proctitis

- + Azithromycin, 1 g orally, in a single dose
OR
- + Doxycycline, 100 mg orally, twice daily for 7 days
OR
- + Erythromycin, 500 mg orally, four times a day for 7 days

6.4.4 Treatment for other diagnoses

Giardiasis

- + Metronidazole 500 mg tid for 7 days

Amebiasis

- + Metronidazole 750 mg tid for 10 days,

Shigellosis

- + Ciprofloxacin 500 mg bid for 7 days

Campylobacter enteritis

- + Ciprofloxacin 500 mg bid for 7 days

7) **SCROTAL SWELLING**

Epididymal infection is one of several diagnoses to consider when a man presents with unilateral scrotal pain and swelling. In approximately 10% of cases, trauma is the cause and, as an etiology, can usually be eliminated by history. In patients with no history of scrotal trauma, important etiologic considerations include testicular torsion, epididymitis, tumor, and tuberculosis. The patient suspects he has a sexually transmitted disease, infection should be carefully considered as the cause of his symptoms.

7.1 **Etiology**

In men under 35 years of age this is more frequently due to sexually transmitted organisms than in those over 35 years of age. When the epididymitis is accompanied by urethral discharge, it should be presumed to be of sexually transmitted origin, commonly *gonococcal* and/or *chlamydial* in nature.

In older men, where there may have been no risk of a sexually transmitted infection other general infections may be responsible, for example, *Escherichia coli*, *Klebsiella* spp. or *Pseudomonas aeruginosa*. A tuberculous orchitis, generally accompanied by an epididymitis, is always secondary to lesions elsewhere, especially in the lungs or bones. In brucellosis, usually due to *Brucella melitensis* or *Brucella abortus*, an orchitis is usually clinically more evident than an epididymitis.

In pre-pubertal children the usual aetiology is coliform, pseudomonas infection or mumps virus. Mumps epididymo-orchitis is usually noted within a week of parotid enlargement.

It is important to consider other non-infectious causes of scrotal swelling, such as trauma, testicular torsion and tumour. Testicular torsion, which should be suspected when onset of scrotal pain is sudden, is a surgical emergency that needs urgent referral.

7.2 **Clinical manifestations**

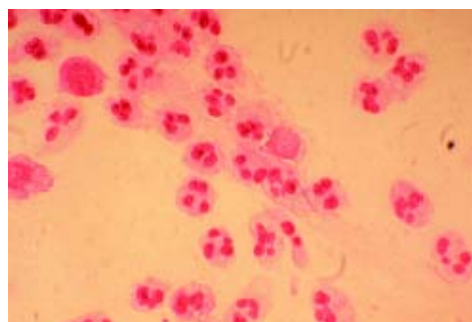
- Acute onset of unilateral testicular pain and swelling,
- Usually associated with overt sub-clinical urethritis
- Testicular swelling, epididymal tenderness
- Erythema and oedema of the overlying skin.



7.3 **Diagnosis**

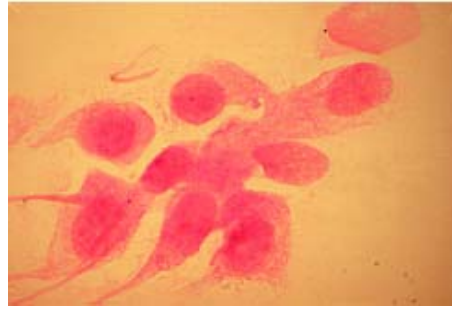
The evaluation of men for epididymitis should include one of following:

- Gram stain of urethral secretion demonstrating ≥ 5 WBC per oil immersion field. The Gram stain is the preferred rapid diagnosis test for



evaluation urethritis. It is highly sensitive and specific for documenting both urethritis and the presence or absence of gonococcal infection.

- Positive leukocyte esterase test on first void urine or microscopic examination of first void urine sedimentation demonstrating ≥ 10 WBC per high power field.



Normal urethral cells on Gram stain

- Culture, nucleic acid hybridization tests, and nucleic acid amplification test for the detection of both *N. gonorrhoeae* and *C. trachomatis* (if available).

7.4 Complication

If not effectively treated, STI-related epididymitis may lead to infertility.

7.5 Treatment

7.5.1 GONOCOCCAL INFECTIONS

- ✚ Ceftriaxone, 250 mg by intramuscular injection, as a single dose

OR

- ✚ Cefixime, 400 mg orally, as a single dose

OR

- ✚ Spectinomycin, 2 g by intramuscular injection, as a single dose.

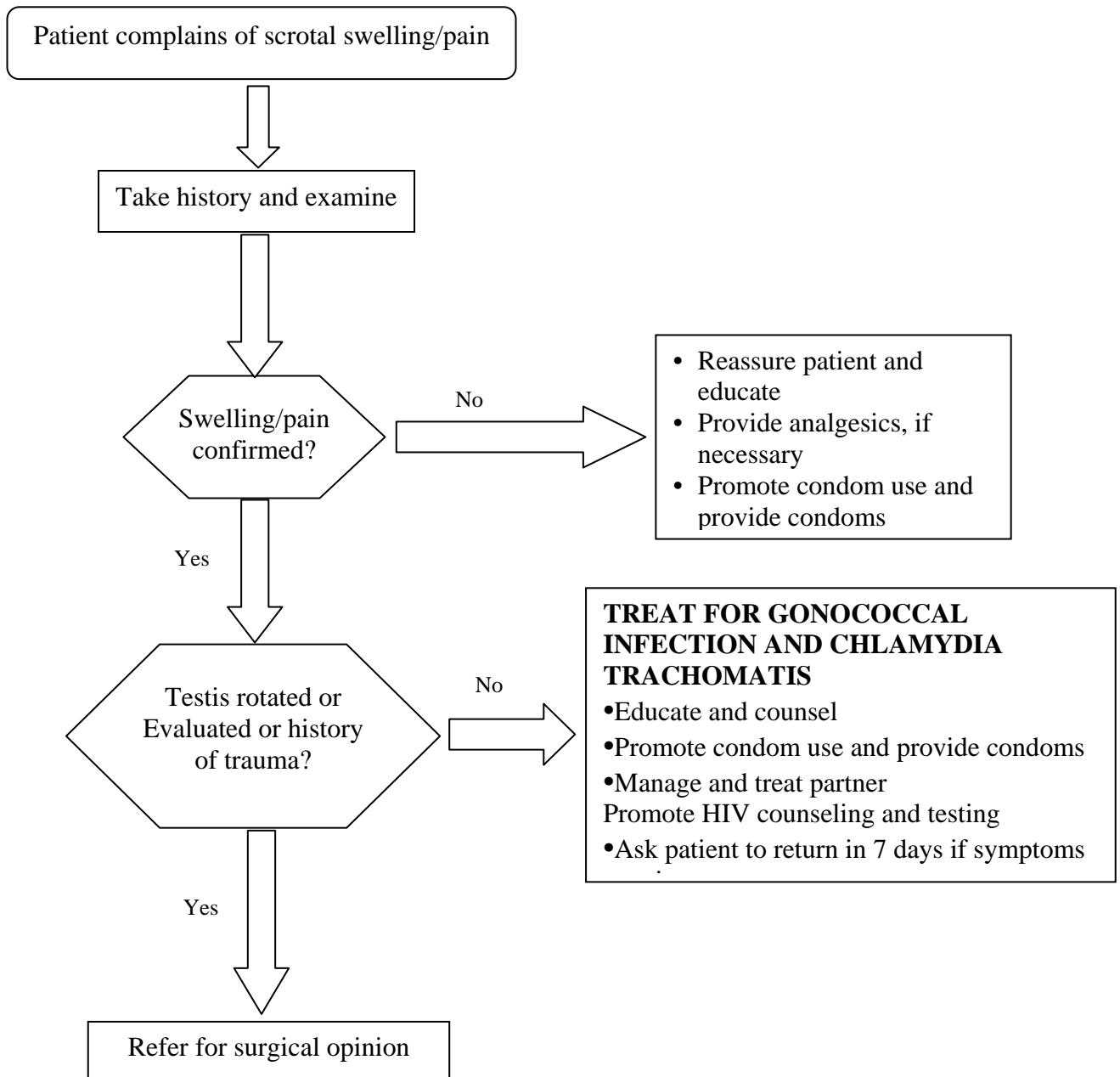
7.5.2 CHLAMYDIAL INFECTION

- ✚ Doxycycline, 100 mg orally, twice daily for 14 days

OR

- ✚ Erythromycin, 500 mg orally, 4 times daily for 14 days.

SCROTAL SWELLING



8) INGUINAL BUBO

Inguinal and femoral buboes are localised enlargements of the lymph nodes in the groin area, which are painful and may be fluctuant.

8.1 Etiology

Lymphogranuloma venereum (LGV) is caused by *C. trachomatis* serovars L1, L2, or L3. It is frequently associated with chancroid.

8.2 Clinical manifestations

The most common clinical manifestation of LGV among heterosexuals is tender inguinal and/or femoral lymphadenopathy that is typically unilateral. A self-limited genital ulcer or papule sometimes occurs at the site of inoculation.



Inguinal Bubo

However, by the time patients seek care, the lesions might have disappeared. Rectal exposure in women or MSM might result in proctocolitis (including mucoid and/or hemorrhagic rectal discharge, anal pain, constipation, fever, and/or tenesmus).

LGV is an invasive, systemic infection, and if it is not treated early, LGV proctocolitis might lead to chronic, colorectal fistulas and strictures.

8.3 Diagnosis

Diagnosis is based on clinical suspicion, epidemiologic information, and the exclusion of other etiologies (of proctocolitis, inguinal lymphadenopathy, or genital or rectal ulcers), along with *C. trachomatis* testing, if available.

Genital and lymph node specimens (i.e., lesion swab or bubo aspirate) may be tested for *C. trachomatis* by culture, direct immunofluorescence, or nucleic acid detection. In the absence of specific LGV diagnostic testing, patients with a clinical syndrome consistent with LGV, including proctocolitis or genital ulcer disease with lymphadenopathy, should be treated for LGV.

8.4 Treatment

✚ Ciprofloxacin, 500mg orally, twice daily for 3 days

AND

✚ Doxycycline, 100mg orally twice daily for 14 days

OR

✚ Erythromycin, 500mg orally four times daily for 14 days

- Some cases may require longer treatment than the 14 days recommended above. Fluctuant lymph nodes should be aspirated through healthy skin. Incision and drainage or excision of nodes may delay healing and should not be attempted.
- Some STD specialists believe that Azithromycin 1.0 g orally once weekly for 3 weeks is probably effective, although clinical data are lacking.

8.5 Follow-Up

Patients should be followed clinically until signs and symptoms have resolved.

8.6 Management of Sex Partners

Persons who have had sexual contact with a patient who has LGV within the 60 days before onset of the patient's symptoms should be examined, tested for urethral or cervical chlamydial infection, and treated with a standard Chlamydia regimen (azithromycin 1 gm orally as a single dose or doxycycline 100 mg orally twice a day for 7 days).

8.7 Special Considerations

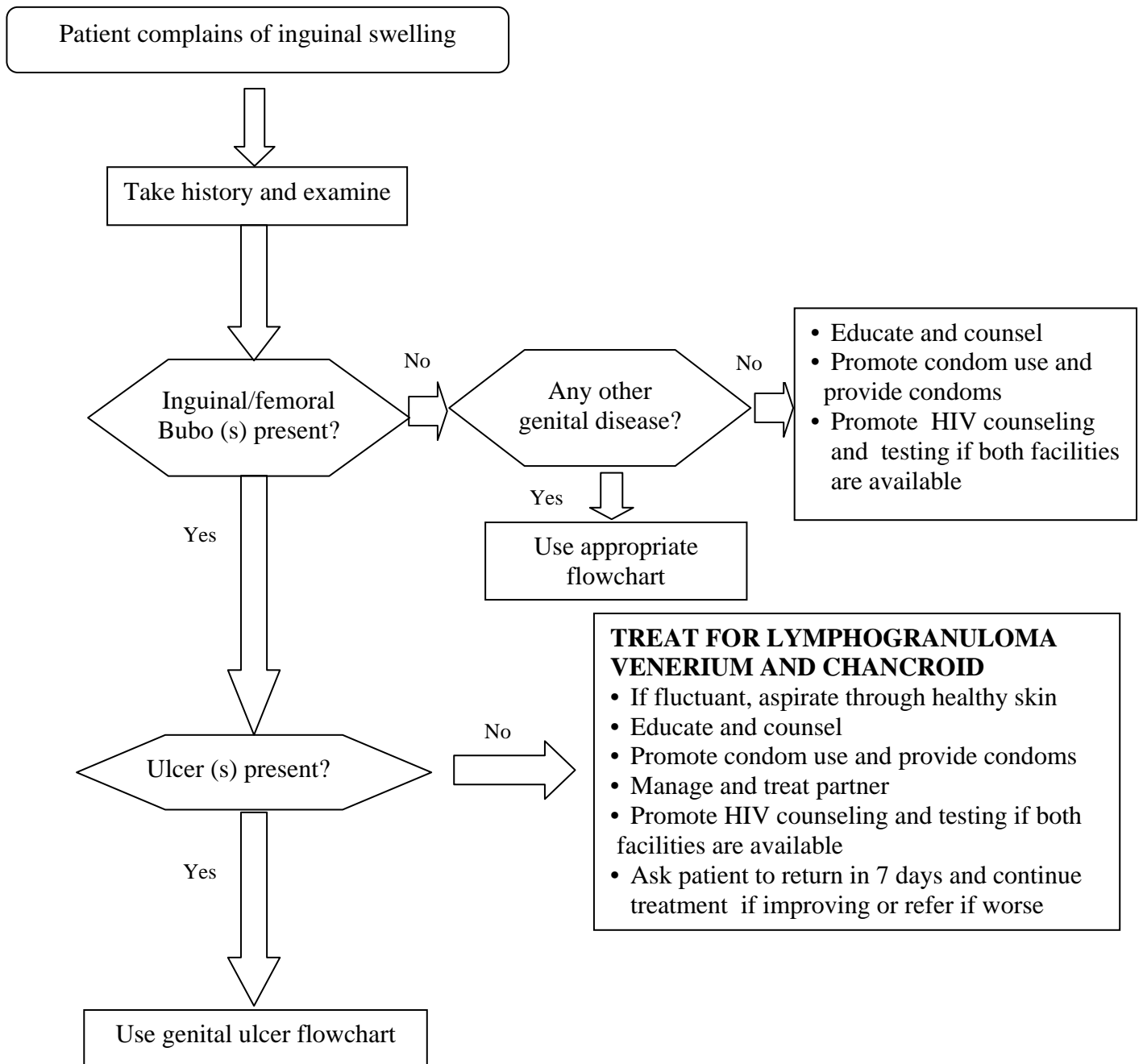
8.7.1 Pregnancy

Pregnant and lactating women should be treated with erythromycin. Azithromycin might prove useful for treatment of LGV in pregnancy, but no published data are available regarding its safety and efficacy. Doxycycline is contraindicated in pregnant women.

8.7.2 HIV Infection

Persons with both LGV and HIV infection should receive the same regimens as those who are HIV negative. Prolonged therapy might be required, and delay in resolution of symptoms might occur.

INGUINAL BUBO



9) NEONATAL CONJUNCTIVITIS

Neonatal conjunctivitis (ophthalmia neonatorum) can lead to blindness when caused by *N. gonorrhoeae*. The most important sexually transmitted pathogens which cause ophthalmia neonatorum are *N. gonorrhoeae* and *C. trachomatis*. In developing countries, *N. gonorrhoeae* accounts for 20-75% and *C. trachomatis* for 15-35% of cases brought to medical attention. Other common causes are *Staphylococcus aureus*, *Streptococcus pneumoniae*, *Haemophilus* spp. and *Pseudomonas* spp.

Newborn babies are generally presented because of redness and swelling of the eyelids or “sticky eyes”, or because of discharge from the eye(s).

As the clinical manifestations and possible complications of gonococcal and chlamydial infections are similar, in settings where it is impossible to differentiate the two infections, treatment should be provided to cover both infections. This would include single dose therapy for gonorrhoea and multiple dose therapy for chlamydia.



ophthalmia neonatorum

9.1 PREVENTION OF OPHTHALMIA NEONATORUM

Using timely eye prophylaxis should prevent gonococcal ophthalmia neonatorum. The infant's eyes should be carefully cleaned immediately after birth and the application of 1% silver nitrate solution or 1% tetracycline ointment to the eyes of all infants at the time of delivery is strongly recommended as a prophylactic measure. All cases of conjunctivitis in the newborn should be treated for both *N. gonorrhoeae* and *C. trachomatis*, because of the possibility of mixed infection.

9.2 TREATMENT OF NEONATAL CONJUNCTIVITIS

9.2.1 *N. gonorrhoeae*

- **CEFTRIAXONE**, 50 mg/kg by intramuscular injection as a single dose, to a maximum of 125mg.

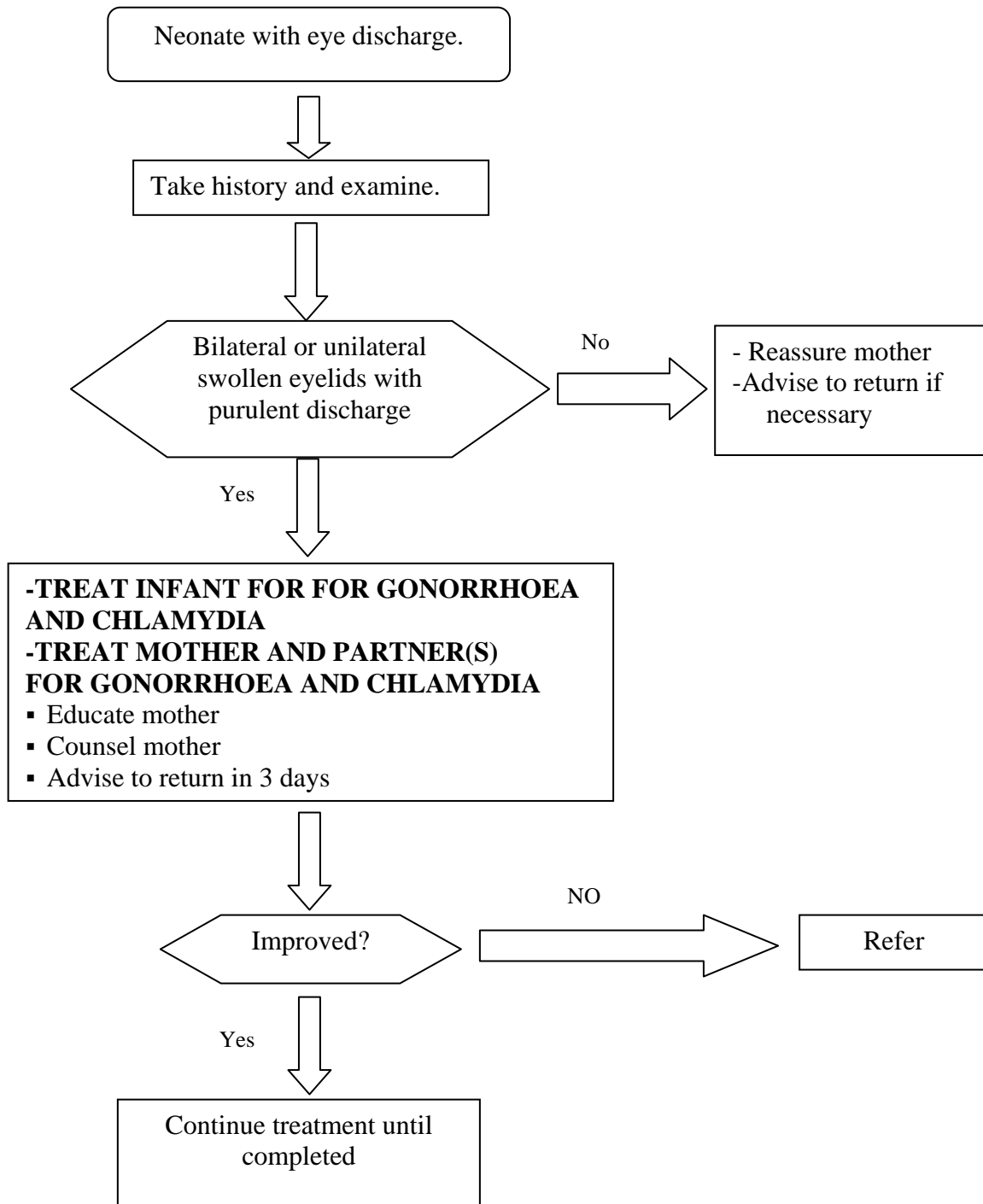
PLUS

9.2.2 *C. trachomatis*,

- **ERYTHROMYCIN syrup**, or **ETHYLSUCCINATE** 50 mg/kg per day orally, in 4 divided doses for 14 days



NEONATAL CONJUNCTIVITIS



10) GENITAL WARTS

Specific types of HPV infection cause genital warts. The types that cause genital warts are different from the types that cause cervical and other anogenital cancers. Persons can possibly have infection with the types of HPV that cause genital warts but never develop symptoms. Why some persons with genital HPV infection develop warts and others do not is unclear. Immunity probably plays a key role.

Human papilloma virus (HPV) is a common sexually transmitted pathogen. Genital warts are painless and do not lead to serious complications, except where they may cause obstruction. The removal of the lesion does not mean cure of the infection. No treatment is completely satisfactory.

The natural history of genital warts is usually benign, but recurrence of genital warts within the first several months after treatment is common. Treatment for genital warts can reduce HPV infection, but whether the treatment results in a reduction in risk for transmission of HPV to sex partners is unclear. The duration of infectivity after wart treatment is unknown. Sexual partners should be examined for evidence of warts. Patients with anogenital warts should be made aware that they are contagious to sexual partners. Condoms might reduce the risk for HPV-associated diseases (e.g., genital warts and cervical cancer). Consistent condom use also may reduce the risk for genital HPV. HPV infection can occur in areas that are not covered or protected by a condom (e.g., scrotum, vulva, or perianus).

Specific types of HPV may give rise to invasive carcinoma of the cervix. It is recommended practice to examine the cervix in all female STI patients, and to perform regular cervical smears in this population for Papanicolaou examination. The presence of genital warts is not an indication for HPV testing, a change in the frequency of Pap tests, or cervical colposcopy. HPV testing is not indicated for partners of persons with genital warts.



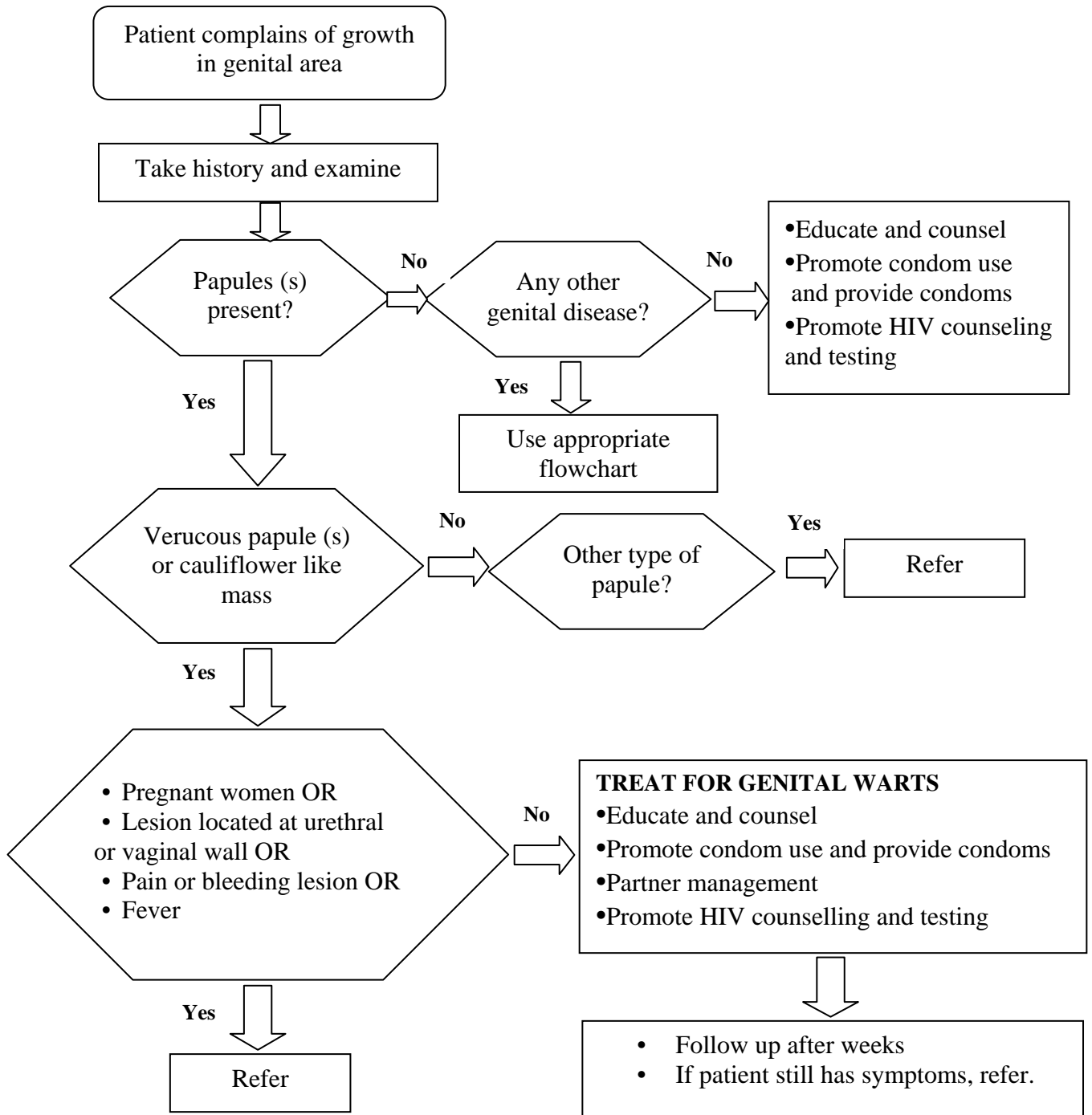
10.1 Special Considerations

Pregnancy

Imiquimod, podophyllin, and podofilox should not be used during pregnancy. However, because genital warts can proliferate and become friable during pregnancy, many specialists advocate their removal during pregnancy. HPV types 6 and 11 can cause respiratory papillomatosis in infants and children. The route of transmission (i.e., transplacental, perinatal, or postnatal) is not completely understood.

Whether cesarean section prevents respiratory papillomatosis in infants and children is unclear; therefore, cesarean delivery should not be performed solely to prevent transmission of HPV infection to the newborn. Cesarean delivery might be indicated for women with genital warts if the pelvic outlet is obstructed or if vaginal delivery would result in excessive bleeding.

GENITAL WARTS



10.2 TREATMENT FOR GENITAL WART

10.2.1 CHEMICAL

- Podophyllotoxin 0.5% solution or gel, twice daily for 3 days, followed by 4 days of no treatment, the cycle repeated up to 4 times (total volume of podophyllotoxin should not exceed 0.5 ml per day) OR
- Imiquimod 5% cream applied with a finger at bedtime, left on overnight, 3 times a week for as long as 16 weeks. The treatment area should be washed with soap and water 6-10 hours after application. Hand must be washed with soap and water immediately after application
- Podophyllin 10-25%, applied carefully to the warts, avoiding normal tissue. External genital and perianal warts should be washed thoroughly 1-4 hours after the application of podophyllin.0.5 ml per day) OR
- TCA 80-90%, applied carefully to the warts, avoiding normal tissue, followed by powdering of the treated area with talc or sodium bicarbonate (baking soda) to remove unreacted acid. Repeat application at weekly intervals.

10.2.2 PHYSICAL

- Cryotherapy with liquid nitrogen, solid carbon dioxide, or a cryoprobe. Repeat applications every 1-2 weeks. OR
- Electrosurgery OR
- Surgical removal

A. VAGINAL WARTS

- Cryotherapy with liquid nitrogen OR
- Podophyllin 10-25%. Allow to dry before removing speculum OR
- TCA 80-90% OR
- Electrosurgery

B. CERVICAL WARTS

Treatment of cervical warts should not be started until the results from a cervical smear test are known.

- Cryotherapy with liquid nitrogen OR
- Podophyllin 10-25%. Allow to dry before removing speculum OR
- TCA 80-90% OR
- Electrosurgery

11) DIAGNOSIS AND TREATMENT OF RARE STI/RTI WITH CUTANEOUS INFESTATION

11.1 MOLLUSCUM CONTAGIOSUM

11.1.1 DEFINITION

Molluscum Contagiosum is a viral infection caused by a pox virus. Genital molluscum infections in adults are usually sexually-transmitted.



11.1.2 CLINICAL FEATURES

Individual lesions of molluscum contagiosum are discrete, smooth, pearly or flesh-coloured, dome-shaped papules and are often confined to the genital area. Each papule may have a mildly erythematous base and a central punctum beneath which lies a white curdlike core.



11.1.3 LABORATORY TESTS

Giemsa-stained smears of the expressed core from the punctum or a skin biopsy will demonstrate molluscum bodies.

11.1.4 TREATMENT

Recommended Treatment

The condition is usually self-limiting and the lesions may heal spontaneously. Treatment is therefore not mandatory.

- Deroof the lesion with a sharp curette, a comedone extractor or a needle.
- Destroy the remaining lesion with liquid nitrogen, trichloroacetic acid application or electrocautery.
- More than one treatment session is often required.

11.1.5 MANAGEMENT OF SEXUAL CONTACTS

- ✚ Regular sex partners should be encouraged to come for examination and treatment, where indicated.

11.2 PEDICULOSIS PUBIS

11.2.1 DEFINITION

This is an infestation of the anogenital region by the crab louse, *phthirus pubis*. In adults it is usually sexually transmitted.

11.2.2 CLINICAL FEATURES

The infestation is indicated by the presence of brown adult lice on the pubic skin as their ova (nits) on pubic hair shafts. Small haemorrhagic spots are also seen on the pubic/genital skin and underwear.

11.2.3 LABORATORY TESTS

The presence of lice or hits recovered from pubic hair confirms the diagnosis.

11.2.4 TREATMENT

Recommended Regimens

1-Malathion 0.5% lotion application. Wash off after 12 hours. or

2-Permethrin (1%) crème rinse. Wash off after 10 minutes. or

3-Lindane 1% shampoo. Wash off after 4 minutes (not recommended for pregnant or lactating women)

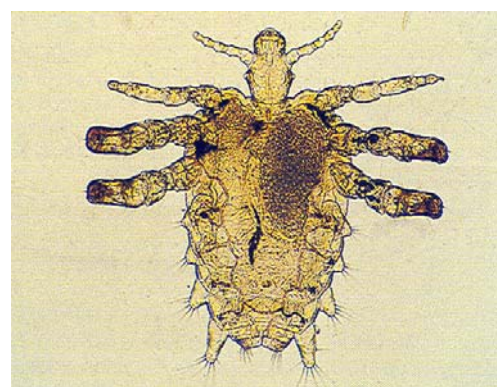
If the eyelashes are affected, apply an occlusive ophthalmic ointment or vaseline to the eyelid margin twice daily for 10 days or remove lice with tweezers or forceps.

Treatment in pregnancy

Pregnant or lactating women should be treated with Permethrin.

11.2.5 FOLLOW-UP

Patients should be re-evaluated after 1 week, which is the time taken for any nits to hatch into lice. Re-treat only if the lice are found or eggs are observed.



11.2.6 MANAGEMENT OF SEXUAL CONTACTS

Regular sex partners within the last month should be encouraged to come for examination and treatment.

11.3 SCABIES

11.3.1 DEFINITION

Scabies is an infestation by the mite, *sarcoptes scabiei var. hominis*.

11.3.2 CLINICAL FEATURES

The clinical features of scabies are pruritic papules on the genitals, finger webs, wrists, axillae and buttocks. There is a nocturnal exacerbation of the itch. Family members may have similar symptoms.



11.3.3 LABORATORY TESTS

The mite can be demonstrated by microscopic examination of scrapings from burrows on the skin.



11.3.4 TREATMENT

Recommended Regimens

1-Emulsion benzyl benzoate (EBB) 25% application for adults and 10% for children under 10 years old. Apply nightly from neck down on all areas of body for 3 nights. or

2-Malathion 0.5% lotion applied thinly to all areas of the body from the neck down and washed off after 24 hours. Apply nightly for 2 nights.

NB: The above are not for use in children under 2 years of age.



Alternative Regimens

1-Gamma benzene hexachloride 1% (Lindane) overnight x 1 application. Avoid bathing 2 hours before application because wet skin enhances absorption. Not for use in pregnant or lactating women or children below 2 years old.

Children under 2 years old:

1-permethrin 5% cream overnight, to be - repeated one week later.

or

2-Sulphur 6% in aqueous cream overnight for 3 to 5 days.

or

3-Crotamiton 10% lotion (Eurax). This is a weak scabicide and 7 days of treatment are required.

Pregnancy:

1-EBB 25%

or

2-Permethrin 5%

or

3-Crotamiton 10% lotion (Eurax)

Crusted (Norwegian) scabies:

Usually in the malnourished, immunode-ficient and patients with neurological disturbance.

Combined topical and oral treatment with levermectin (0.2 mg/kg) -2 - 3 doses every 1-2 weeks.

11.3.5 FOLLOW-UP

Clothing and bed sheets should be washed with hot water or dry cleaned. Patients must be warned that there might be an initial exacerbation of the pruritus. Antihistamines are required to relieve the itch.

Repeat treatment with different agent is often necessary –treatment failure may be due to resistance to medication, faulty application techniques, poor penetration through thick scales, mites in difficult to reach areas, and reinfection.

Post -scabetic itch can last several weeks and is treated with topical steroids and antihistamines.

11.3.6 MANAGEMENT OF SEXUAL CONTACTS

Sex partners and close family contacts should be treated even if asymptomatic.

| Scabicide | Frequency of application | Toxicity |
|---------------------------|---|-----------------|
| Permethrin 5% cream | One application left on over 8–12 hours | Low |
| Malathion liquid emulsion | One application left on over 4 hours | Low |
| Benzyl benzoate | Two applications over 48 hours | Low |
| Lindane | Two applications 72 hours apart | Medium |
| Sulfur ointment | Each night for 3 nights | Low |

12) NON-STI GENITAL LESIONS

12.1 Introduction:

Many dermatologic conditions can affect the genitals, and some anatomic variants occasionally are confused with abnormal conditions by patients or their health care providers. Not surprisingly, sexually active persons with genital dermatoses often present to providers with concerns about STD. Entire textbooks have been written on the topic of genital dermatology, and it is beyond the scope of this book to provide a comprehensive overview. Examples of a few conditions are presented, with emphasis on those that are especially likely to affect younger persons or that are easily confused with STDs.

12.2 Inflammatory dermatoses of the genitals

12.2.1 Psoriasis

Psoriasis is the most common inflammatory reaction affecting the genitalia. It may appear in 2 forms. Patients may develop bright red well-defined inguinal plaques known as inverse psoriasis. The scale so apparent in other parts of the body is not seen. No central clearing often seen in tinea is present. The plaque appears homogeneously erythematous. Similar lesions may be affected the axilla or the popliteal fossa. Unlike psoriasis elsewhere, inverse psoriasis may be itchy. Often, no past history of psoriasis is present

Psoriasis may affect the penis, particularly the glans penis. Thin pale erythematous plaques with slight scale are seen in discreet or continuous forms. No itching or burning is present. It may be aggravated by trauma. Often, no psoriasis is seen on the rest of the body. Like inverse psoriasis, psoriasis on the penis tends to be well defined. No vesicles or erosions are seen. Both types of psoriasis respond well to low-potency cortisone creams. Mild and high potency steroids must not be used to avoid atrophy. It can be helpful to compound hydrocortisone 2.5% cream and ketoconazole cream. Many clinicians feel that candida helps precipitate psoriasis in susceptible individuals. Calcipotriol cream, a vitamin D derivative, used elsewhere for psoriasis can be a non-steroidal alternative for psoriasis on the glans penis.



Psoriasis of the glans penis in a circumcised male



Psoriasis of the glans penis in an uncircumcised man

12.2.2 Reiter's disease

Reiter's disease is associated with arthritis, urethritis, and conjunctivitis. Patients may also develop a balanitis circinata consisting of moist serpiginous plaques with ragged white borders on the glans penis.



12.2.3 Eczema

It frequently affects the genital region, particularly the scrotum. Patients complain of intense itching often related to heat and sweat. Patients present with lichenified erythematous plaques on the lateral scrotum. Darker skinned patients often exhibit hyperpigmented rather than erythematous eruptions leading the clinician to underestimate the degree of inflammation. In acute cases, low potency topical steroids for a maximum of 2 weeks can be helpful. In chronic cases, most topical medications are soothing for only a few hours.



Patients often wash the area vigorously with soap feeling that cleanliness will aid the problem. Getting them to stop excessive washing is very important to long term resolution. Zinc oxide paste is very soothing and helps absorb sweat. For particularly inflammatory eruptions, hydrocortisone 2.5% cream can be added to the zinc oxide. The eruption may develop into lichen simplex chronicus (LSC) characterized by extensive lichenification and hypertrophy of the affected skin. The lichenification results from prolonged scratching and rubbing. Breaking the itch-scratch-itch cycle is paramount. Antihistamines at night may temporarily provide relief. Vulvodynia defined by the complaint of burning in the vulva region is beyond the scope of this article.

A- Contact dermatitis

It can be divided in irritant and allergic forms. All patients are theoretically susceptible to irritant contact dermatitis. It may develop from chronic use of soaps, disinfectants or aseptic solutions. The latter are often used in hopes of preventing STD's. Irritants can be transferred from the hands to the genitals such as 5-floururacil cream used for actinic keratoses on the face.

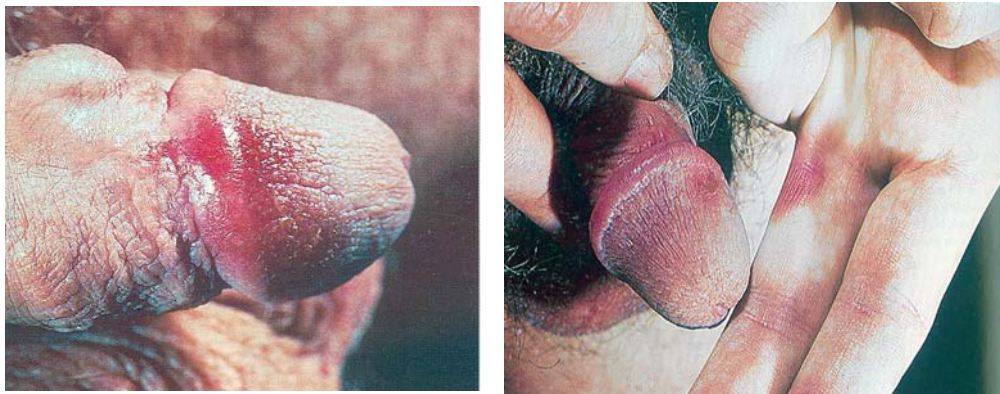
B- Allergic contact dermatitis

It is also common. The penis may develop immense swelling accompanied by erythematic and scaling. The marked edema occurs because of the thin

elastic skin on the genitalia. The list of offenders is numerous and includes many medications used elsewhere on the body that can be transferred to the genital area. Poison ivy or rash dermatitis is commonly transferred by the hands to the genitals. Lesions on other locations are common. Benzocaine, triple antibiotic ointment, and topical benadryl are frequent offenders. Obtaining a history of topical products is very important as many products may be used in patients who are concerned about hygiene or STD's. Men with latex allergy can develop erythema and scale along the entire penis due to latex condoms. Treatment is mild topical steroids. Switching to a non-latex condom is another option.

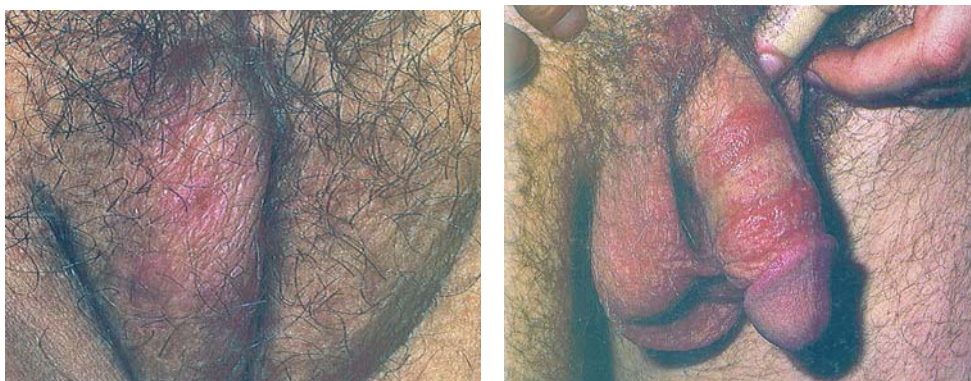
12.2.4 Fixed drug eruptions

It can occur secondary to antibiotics from the tetracycline class or laxatives containing phenolphthalein. More than 500 medications have been implicated. The eruption presents acutely with single or multiple well defined circular plaques on the distal shaft and glans penis. The eruption may be bullous. The surface can appear necrotic. It has been compared to branding with a hot iron. Some patients have been falsely labeled with herpes simplex due to the intermittent nature of the eruption. Females do not seem to get genital fixed drug eruptions as commonly as men. Recurrent eruptions are associated with hyper pigmentation



12.2.5 Lichen planus

Lichen planus is an inflammatory disorder characterized by violaceous flat-topped papule that may appear on any part of the body. Typically, the glans penis is involved as part of a systemic process. Multiple small 2-5 mm flat topped papules are seen. No vesicles, erosions, or crust are seen.



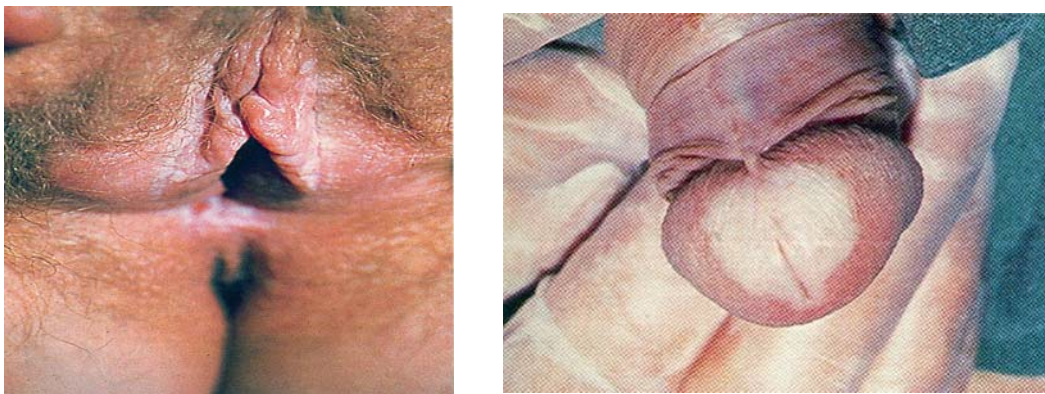
12.2.6 Lichen nitidus

It is a similar inflammatory disorder of unknown etiology. Patients may present with a monomorphic flesh colored 1-2 mm papules along the shaft of penis.



12.2.7 Lichen sclerosis

It is a progressive sclerosing dermatosis of unknown origin. Atrophic white plaques occur in men on the glans or prepuce. The eruption tends to fissure. Adhesion may develop. In females, extensive white atrophic plaques may cover most of the vulva and perianal area forming a "figure of 8" appearance. Adhesions may also develop obliterating the labia minora and sometimes narrowing the vaginal orifice. Skin biopsy is necessary to make the diagnosis.



12.2.8 Vitiligo

Vitiligo can appear similar to lichen sclerosis, also presenting with hypopigmented or depigmented areas on the genitals. Unlike lichen sclerosis, no atrophy is present. In men, the glans penis and shaft are commonly affected. There are no symptoms. Diagnosis can be aided by the presence of depigmented areas elsewhere on the body, especially on the face and dorsum of the hands. Treatment, if desired, with low potency steroids is helpful in some cases.



Hidradenitis suppurativa presents with inflammatory red somewhat fluctuant nodules along the inguinal folds and gluteal cleft. Lesions may be several centimeters in size. Pain is common. Most clinicians now believe this disorder represents an inflammatory form of acne in versa rather than an infectious process. Lesion should be sought in the axilla. Larger lesions may need incision and drainage.

12.2.9 Zoon's balanitis

Presents with a chronic erythematous lesion on the distal penis in uncircumcised men. The lesion is poorly defined and has a moist surface.



12.2.10 Purple striae

They are from steroid atrophy and often occur in the inguinal folds and thighs after using high potency steroids for one month.

12.3 benign lesions

12.3.1 1- Sebaceous hyperplasia

It is common on the genitals in men and women. Patients who perform self-examination may be shocked to learn there are dozens of suspicious lesions present along the vulva or along the proximal penile shaft. Lesions tend to be 1-2 mm yellow to flesh colored monomorphic papules sometimes containing individual hairs. Having pictures of normal human anatomy can be reassuring to patients as they are concerned about genital warts.



12.3.2 2- Vestibular papillae

Vestibular papillae are also normal variants found in up to one-half of premenopausal women. These small monomorphic filiform tubular projection appear in the vestibule and may be confused with genital warts. Reassurance to the patient is all that is needed.



12.3.3 Pearly penile papule (PPP)

Pearly penile papule (PPP) present on the coronal sulcus of the glans penis with monomorphic 1-2mm flesh colored smooth papules. They may present during late adolescent and may be clinically confused with genital warts. The lesions are asymptomatic and reassurance is all that is needed.



12.3.4 Epidermal cysts

They are common in the follicle rich genital area. They consist of a dilated oil gland or hair shaft that may reach 1-2 cm in size. They are usually asymptomatic but patients are concerned over the appearance and may request removal. Lesions respond well to simple excision.

12.3.5 Scrotal cysts

Scrotal cysts commonly calcify forming rock-hard deposits. Multiple lesions are known as scrotal calcinosis. No treatment is needed but individual lesions may be excised. Median raphe cysts occur on the ventral midline of the penis and probably represent a fusion anomaly.



12.3.6 Angiokeratomas

They are common asymptomatic vascular lesions occurring on the scrotum.

They may be identified incidentally on an exam. Lesions appear as red to black 1-4 mm nodules. Patients may present after an episode of bleeding after trauma.



12.4 Malignant lesions of the genitals

12.4.1 Squamous cell carcinoma (SCC)

It is the most common genital skin cancer. Men present in their 50's and 60's with red irregular defined plaques typically along the coronal sulcus. They may give a history of the lesion being present for 1-2 years. A history describing partial clearing with topical creams is common, as most patients have attempted some form of treatment.



12.4.2 Erythroplasia of Queyrat

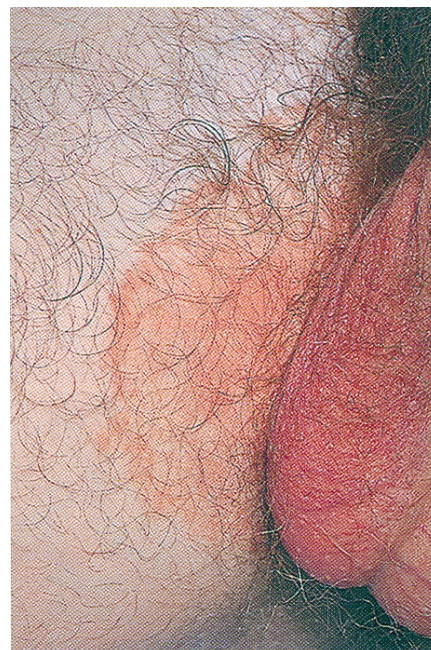
They are usually treated by excision with little morbidity. Invasive see of the penis occurs primarily in uncircumcised males. Women may develop vulvas see which presents with ill defined erythematous somewhat scaly plaque. Invasive see on the genitals in men and women tends to be aggressive and metastases are common.



12.5 Infections

12.5.1 Tinea cruris

Tinea cruris or jock itch is a relatively common problem. Typically, a male will present complaining of a rash that is somewhat for several weeks or months in the groin. Most patient have typically tried several over the counter creams, powder, or sprays, so a good history is important. Inciting factors include obesity and excessive heat and humidity. Men are affected more than women. Patients present with diffuse bilateral erythema and scaling along the inguinal folds. A raised border typical of tinea infection is usually present. The eruption may extend along the perineum up the gluteal cleft. Involvement of the scrotum is distinctly uncommon and another diagnosis should be considered with extensive scrotal involvement. Most tinea cruris are caused by dermatophyte fungi like *Trichophyton rubrum*.



12.5.2 Candidiasis

Candidiasis also occurs in the inguinal folds. The eruption is erythematous and scaly but usually without a raised border. So-called satellite lesions consisting of small patches are present near the inguinal folds. In women, the inflamer fold should be examined. Incontinence and heat are inciting factors. Both tinea cruris and candidiasis readily respond to topical antifungal treatment such econazole, ketoconazole, cicloprox, or terfenidine. Nystatin will not effectively treat tinea. The use of mixture containing topical steroids is strictly discouraged due to lack of efficacy in eradicating infection as well as steroid atrophy in the thin genital skin characterized by a waxy appearance, softness, and telangiectasia. Removing environmental factors such as heat, sweat, and obesity are important to prevent re-infection. Men may be encouraged to wear boxers. Patients should also consider an antifungal powder. Candidal balantitis occurs in uncircumcised men, particularly associated with excessive.

Anal cancer has increased somewhat in the last 10 years, particularly in HIV positive gay men.

It is still a rare disease. HPV has been found in most of the lesions. Patients present with erythematous broad based vegetating plaque that often has bled. Excision is the preferred form of treatment.



12.5.3 Tinea versicolor

They are caused by pityrosporum ovale may present with tan patches in the pubic area alone or in association with similar lesions on the chest and back. The eruption is usually asymptomatic. Diagnosis can be confirmed clinically with a KOH prep which will show the typical "spaghetti and meatballs" appearance. The eruption will respond to selenium sulfide lotion or any of the axole creams. Oral azoles may be considered if the eruption is extensive.



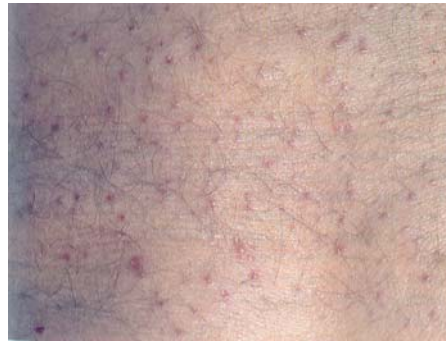
12.5.4 Erythrasma

It is an uncommon bacterial infection caused by *Corynebacterium minutissimum* that presents with diffuse thin red patches along the inguinal folds.



12.5.5 Folliculitis

They are usually caused by *Staphylococcus aureus* (*S.aureus*) is common in the follicle rich genital region. Typically, patients have several 1-2 mm pustules, each centered on a hair follicle. Careful exam may show a hair follicle extending out of the pustule. Note, the lesions are not grouped nor are they usually unilateral like genital herpes.



Folliculitis can occur anywhere on the genitals though less common on the distal penis due to absence of follicles. Heat and sweat are aggravating factors. Patients may give a history of a new exercise routine or wearing synthetic jogging pants that retain perspiration. Patients will respond to topical or oral antibiotics directed toward *S.aureus*. A mainstay of treatment is antibacterial soaps.

12.6 CONCLUSION

Genital dermatology is a varied field characterized by a multiplicity of lesions and eruptions. Proper history taking is important as many eruptions may acquire an atypical appearance due to prior use of medication by the patient. Moistness, heat, and sweat combine to aggravate common dermatoses that involve the genital area. Cultures, KOH, and a magnifying glass are indispensable tools for the clinicians. When in doubt, consider a biopsy for a persistent eruption, which can confirm or dispel a diagnosis. Patients often appreciate an astute clinician who can provide answers for this sensitive part of the body.

**National Guidelines on Sexually Transmitted Infections (STI)
and Reproductive Tract Infections (RTI) Case Management**

MODULE 4

**EDUCATING AND
COUNSELING THE PATIENT**

1. INTRODUCTION

STI control programmes should aim to reduce the rate of new infections through a combination of strategies, including behaviour change, risk reduction, condom use and treatment of patients with STIs. Health education and counselling for STIs are important for individuals to appreciate their own responsibilities and opportunities to reduce STI transmission. A person who presents for STI care at a health centre is at his/her most receptive phase for education. Education should cover the nature of the infection, its consequences and risk reduction to prevent both transmission to others and acquisition of future infections. The education process needs to be carried out effectively and appropriately to have the desired effect. If the patient is not educated and/or counselled about the infection, he/she is at higher risk of becoming reinfected and/or spreading the infection to sexual partners. A person who is made aware through appropriate health education is more likely to be cooperative and receptive of the health care provider's advice. This module attempts to provide some insight into the provision of health education and counselling as part of your day-to-day interactions with patients. Indeed, every health care provider should be equipped with the appropriate basic knowledge of STI/RTIs in order to give health education to patients. However, counselling is a special skill that requires proper training: we recommend that you receive this from institutions that provide counselling training. This module will only provide the basic concepts of counselling and does not presume to make you a professional counsellor.

2. OBJECTIVES

This module and its accompanying activities and action plans will enable you to:

- explain the difference between education and counseling
- explain why education and counselling are so vital in STI/RTI case management
- recall a range of communication skills for education and counseling
- discuss sexual practices and sexual behaviour
- educate and counsel for sex workers and men who have sex with men (MSM)
- identify the main education topics for patients with STI/RTI
- list the benefits of using condoms
- recall the basic steps for putting on condoms and demonstrate this to a patient.

3. HEALTH EDUCATION AND COUNSELLING

Health education and counselling are closely linked. Both activities may take place at the same time. In health education, the aim is to make the patient better informed, so that he/she can make an informed choice of sexual behaviour and practices. Counselling relates more to issues of anxiety and coping with the infection or its consequences, biomedical as well as social.

Health education is the provision of accurate and truthful information so that a person can become knowledgeable about the subject and make an informed choice. *For example, a young woman with an STI needs to know how she contracted the infection in order to decide to change her sexual practice.*

The service provider should inform her about STIs and their prevention.

Counselling is a two-way interaction between a client and a provider. It is an interpersonal, dynamic communication process that involves a kind of contractual agreement between a client and a counsellor who is trained to an acceptable standard and who is bound by a code of ethics and practice. It requires empathy, genuineness and the absence of any moral or personal judgement. Counselling can be applied to any life situation, for example, when a nurse is listening and talking to grieving relatives; or a colleague is talking to someone who wants to quit their job and even go and commit suicide because of it! In other words, counselling is not peculiar only to STI and HIV.

Counselling aims to encourage healthy living and requires the client to explore important personal issues and to identify ways of living with the prevailing situation, whether it is an infection or bereavement. It is not about providing advice or guidance, nor does it mean befriending someone. In STI and HIV, the counselling process assesses and addresses the client's needs to enable the person to cope with any anxiety and stress brought about by the diagnosis. The counselling process should also evaluate the person's risk of STI transmission and explore preventive behaviour in future. So, counselling helps clients understand themselves better as individuals, exploring their feelings, attitudes, values and beliefs. Equipped with the right knowledge, the client should seek to change behaviour as a result of counselling.

For example, a man may have infected his wife with gonorrhoea after being infected elsewhere and he now needs to tell her about this. He may need counselling to deal with this particular problem. Another example might be where a male patient is found to have genital herpes. The service provider educates him about this infection. The patient might panic when told that the infection is incurable, so counseling would be necessary.

3.1. Why are education and counselling so important?

They are important for several reasons:

- patients are more likely to comply with treatment if they understand why it is important to do so
- a person with STI has a high likelihood of being reinfected
- preventing reinfection requires sustained behaviour change. Patients often need education and counselling to enable them to change behaviour and adopt safer sexual practices.

3.2. Why offer education and counselling for STI/TRI at STI/RTI clinics?

Health care providers have a unique opportunity to discuss safer sex and prevention strategies with patients who have sought health care and advice. This link between treatment and prevention is very important because:

- it reaches people when they are ready: the patient has come to you
- the patient's initial visit is a unique opportunity for patient education. Often the only time that patients are interested to learn about a disease or its prevention is upon hearing that they, or someone they know, are faced with that disease
- opportunities for brief, repeated and cumulative messages are more likely at the primary health centre than a referral centre.

3.3. Role Play

- Four Cases Studies below will be used to assess the skill of the participants related to education and counseling the patients.
- The participants are requested to perform first base on their experiences.
- You will be suggested to read the instruction and checklist form on pages 19-22 and 28 on Activity 1 (P19-22) and Activity 2 (P28).
- If you attend the class, facilitators will give you the guide how to perform the role play.

3.3.1. Case study 1: Pao

Pao is a 19-year-old sex worker who lives in a slum area of town. She has one small child who is often sick. Nina has no partner. She is also using her earnings to help support her family who live in a remote village. Her family disapproves of her job but eagerly accepts the money that she sends home. She is afraid of AIDS but finds that many of her clients refuse to use condoms; she also has a limited knowledge about STI/RTIs. The service provider has diagnosed a vaginal discharge; Pao is afraid it might be an STI.

3.3.2. Case study 2: Sophal

Sophal is a 24-year-old single man with a good job and his own home. He does not want to settle down for a long time, describing himself as 'a good time guy'. He has three sexual partners and sometimes has casual sex too. However, he says he chooses women who are 'clean' or 'married', so he cannot understand why he now has a urethral discharge. During the interview he admits that he often gets drunk or injects drugs with one of his partners before sex. The service provider has confirmed a urethral discharge.

3.3.3. Case study 3: Navy

Navy is 35, married with three teenage children. She relies on her husband's income from factory work to support the family. During the interview, she said that she has sex only with her husband. She has already explained that her husband often works late at the factory and that he goes for a drink with friends occasionally: she can sometimes smell the alcohol on his breath. However she feels quite secure in his faithfulness to her. She came to the

centre with no idea of the cause of her abdominal pain – the service provider has diagnosed pelvic inflammatory disease.

3.3.4. Case study 4: Mony

Mony is 35, married with four children and living in a rural area. He attended an urban clinic with a swelling in his groin, which the service provider diagnosed as an inguinal bubo. In answering the service provider's questions, he admitted reluctantly that he has sex with a number of other partners, many of them casual, in the course of his search for work. He regularly travels to the city, working away from home for three months at a time. He says that his wife is six months pregnant: he has not been home for two months though he regularly sends money home. He is currently living with a casual partner in the city.

4. HEALTH EDUCATION – EDUCATE ON WHAT?

This section will enable you to identify a number of issues on which you need to educate patients with STIs.

Health education happens when a health care provider shares their knowledge with the aim of increasing a client's awareness and understanding. In health education the same facts are given to everyone.

As with any other type of patient, people with an STI need to know about their condition and its management because the goals of patient education are to:

- help the patient resolve any current infections
- prevent future infections
- make sure that sex partners are also treated and educated.

As a health care provider, you may feel uncomfortable using certain words about sexual matters. It is important to become familiar with using these words so you can feel comfortable when you speak to and educate your patients.

You may need special training to achieve this, so you may wish to discuss this with your facilitator or manager. In Module 3, we explored the issue of local language and popular terms that you may need to be familiar with to discuss such sensitive subjects.

4.1. Explaining the STI and its treatment

The first issue is to explain what a sexually transmitted infection is. It is important that the patient understands that the infection is transmitted mainly through sexual intercourse with an infected person. The sex act may be penile-vaginal, oral or anal. Explain that sexually transmitted organisms can be bacterial (e.g. *the gonococcus*), parasitic (e.g. *Trichomonas vaginalis* or *pubic lice*), or viral (e.g. *herpes simplex virus* or *HIV*). Then explain which STI the patient has and what treatment will be necessary – the name of the medication and how much to take, how often and for

how long. Write down these details for the patient – or use recognizable symbols if the patient cannot read. Also:

- find out what the patient understands about the STI and its treatment and what questions and concerns he or she may have
- advise about any common side-effects of the treatment
- encourage the patient to comply with treatment.

As with all treatments, it is essential that patients complete the recommended treatment, even if the symptoms disappear or improve. Remind them that if they do not take all the medication, the symptoms may recur and that they will not be completely cured.

4.2. Educate on prevention of future infection

Once you are sure that the patient understands what infection they have and what treatment to follow, he or she next needs to appreciate the risk of becoming reinfected. This means that you assist the patient to assess his/her own risk level.

4.2.1. Changing sexual behaviour

Remember: high risk behaviour is behaviour that exposes the patient to sex fluids and blood. Therefore, changing from high risk to low risk sexual behaviour is one way to prevent future infection. Reducing the number of sex partners or the rate of change of sex partners is important. Sexual abstinence virtually guarantees against contracting or transmitting an STI. This is particularly important during treatment for STIs.

4.2.2. Condoms

Another practice for preventing the spread of STIs is the use of condoms. Male latex condoms can reduce the risk of contracting or transmitted STIs if consistently and correctly used. The health care provider must demonstrate the correct use of condoms, using a penile model, where available. Let the client practise on the model so that they understand how to put the condom on, can demonstrate this skill and feel confident about handling a condom.

4.2.3. Sexual practice

It is also important to inform clients that some sexual practices have a higher risk of infection. For example, anal sex, whether it is male to female or male to male, carries a higher risk than penile-vaginal sex.

4.2.4. Other barrier methods

Inform your clients of any other existing prevention methods such as the use of spermicides that may also be bactericidal; microbicides or vaccines (e.g. for hepatitis B).

4.2.5. Personal hygiene and cultural practices

Vaginal douching, for example, may remove protective bacteria in the vagina increasing the risk of getting some STIs, e.g. HIV. Washing with soap and water may help prevent colonization with parasites, such as pubic lice or scabies.

4.3. *The need to treat sexual partners*

This is the theme of Module 5, so we need not discuss it in any detail here. Remember; always inform patients how important it is to have all their known sex partners treated.

Reassure the patient that you will maintain confidentiality and discuss how they can persuade the partner(s) to attend for treatment. Stress that treatment will benefit both partners because there will be no risk of reinfection and the partner, who may not be aware of the infection, will have the STI treated and avoid future serious complications.

This is all factual information and you could supplement it with a brochure that a patient can take home to read at leisure. Once the patient has assimilated the information, they will know about STIs/RTIs and how to prevent them.

However, knowledge and information alone are not sufficient to bring about behaviour change. We also need to bring about behaviour change, and counselling is one strategy that can be used to achieve this.

4.4. *Counselling to refer HIV testing*

This section will enable you to explain the importance and relevance of HIV testing. We can counsel patients or clients to enable them to make an informed decision about being referred for HIV testing.

The significant of doing HIV testing is to understand about their HIV status. Then clients will be easier to prevent their health even they gotten negative or positive test result. The VCCT is known as voluntary confidential, counseling and testing.

A negative result at the first test indicates that the person can probably have true and false negative. This person can be not infected at the time. However, there is a period between getting infected and developing enough antibodies during which no HIV test can detect the infection. This is called the 'window period.' For most infected people, this period is from six weeks to six months.

5. COUNSELLING FOR STI/RTI AND HIV

Counselling helps clients understand themselves better as individuals. It explores feelings, attitudes, values and beliefs. Equipped with the correct information and knowledge, the client should seek to change behaviour as a result of counselling.

There are certain basic requirements for counselling to be acceptable. For many people, if not all, issues of a sexual nature can be very embarrassing to discuss.

It is important to recognize that it will have taken considerable courage for someone to seek help for STI/RTIs or HIV and they may have many expectations (positive and negative) about the session or the messages that you will provide.

We need to be aware of cultural beliefs and how they influence behaviour, thought and feelings. This means that the conditions and the environment must facilitate talking about sex. The environment must provide privacy, ensure confidentiality and professionalism. The communication must take cultural, gender and language issues into account. We recommend that you use simple language rather than “impressive” medical terms.

There must be respect for age and seniority within the cultural norms. (By culture, we mean the habits, expectations, behaviours, rituals, values and beliefs that groups of people develop over time. Culture strongly influences our feelings and beliefs about health and illness, about caring for each other and about death and loss.)

Avoid giving the client the impression that the session is rushed and you are short of time. Effective counselling requires time.

Health care providers need to develop a number of basic skills to conduct an effective and satisfying counselling session. Counsellors must be empathetic and able to communicate clearly with calm and steady control over their emotions.

Communication is the key. Communication can be both verbal and nonverbal.

The key non-verbal communication skills are:

- appropriate eye contact
- listening
- staying close to the patient without physical barriers in between, but within culturally acceptable norms.

The key verbal skills are:

- use of open-ended questions
- facilitation, to encourage clients to come out and speak
- direction, to help clients sort out their ideas and issues clearly
- summarizing and checking (paraphrasing), to enable you, as counsellor, to check that you have understood the client correctly.

As these skills, verbal and non-verbal, are also important for building a good rapport with patients and clients and for taking a good medical history, we have dealt with them in Module 3.

5.1. Assessing the patient's risk level

If you have taken the patient's history, you may already have enough information to assess the risk of reinfection. The next page contains a list of possible issues that may help you explore the risks with the patient.

5.1.1. Factors to assess the patient's risk of further STI

| | |
|---|--|
| <p>Personal sexual behaviour</p> <ul style="list-style-type: none">• Number of sexual partners in the past year.• Sex with a new or different partner in the last three months.• Any other STIs in the past year.• The exchange of sex for money, goods or drugs (giving or receiving).• Use of herbs as a drying agent, or similar sexual practices. <p>Other personal risk factors</p> <ul style="list-style-type: none">• HIV infection.• Use of skin-piercing instruments such as needles (injections, tattoos), scarification or body-piercing tools, circumcision knives.• Blood transfusion.• For young children, all these risk factors relate to the parents. | <p>Partner(s) sexual behaviour</p> <p>Does the patient's partner(s):</p> <ul style="list-style-type: none">• have sex with other partners?• also have an STI?• have HIV infection?• inject drugs?• if male, have sex with other men? <p>Personal drug use</p> <ul style="list-style-type: none">• Use of alcohol or other drugs (which drugs?) before and during sex.• Sharing needles or 'works' (high risk of transmitting or being infected with HIV).• Exchange of sex for drugs or drugs for sex. <p>Patient's protective behaviour</p> <ul style="list-style-type: none">• What the patient does to protect him/herself from STIs.• Use of condoms: when and how, with whom, why.• Low-risk or safe sexual activities the patient might practise: when and how, with whom, why. |
|---|--|

5.1.2. Helping the patient identify his/her risk factors

Once you have a clear idea of the patient's risk level, you need to help the patient identify what risks he or she has been taking in the past, then work together to explore options for safer sex.

Options for safer sex include:

1. Limiting sexual partners to one faithful partner.
2. Using condoms consistently and correctly.
3. Replacing high-risk penetrative sex (such as unprotected vaginal or anal intercourse) with low-risk non-penetrative sex (such as mutual masturbation).
4. Abstinence from sexual intercourse: a preventive strategy that should be encouraged, especially in the young and in couples when one partner is being treated for STI.

Continually check for misconceptions when discussing sexual behaviour with a patient. Few patients have a *complete* or *accurate* picture of either the causes of STI or how to avoid infection, and accurate information is often mixed with local beliefs. It is clear that a patient with inaccurate beliefs about the causes of STI may have a false sense of security – and so run an even greater risk of reinfection. Some such common beliefs about STI/HIV include:

- the idea that certain people, such as married women, young girls or boys or ‘clean’ partners, are usually free from infection
- taking anti-malarials or any other antimicrobials before or after sex offers protection
- urinating, washing or douching after sex protects against all STIs
- the patient’s belief that he/she does not belong to a high-risk group (such as commercial sex workers or homosexual males) and so is safe
- circumcision offers absolute protection against STIs and HIV.

None of the above beliefs is true, of course.

5.2. The need to change sexual behaviour

Once the patient understands how he or she was infected and is aware of the risk of reinfection, the next steps are perhaps the service provider’s most challenging tasks. These are the need for the client to change sexual behaviour, the barriers to such change and establishing the changes that the client intends to make.

This step is about helping the client decide to change his or her sexual behaviour in order to avoid further infection. It is a good idea to give the patient the opportunity to identify what changes might be possible in his or her own life. Assist the client to rate the importance of changing the risky behaviour and his/her confidence in succeeding.

5.3. Barriers to changing behaviour

All health care providers are aware of the difficulty of changing a person's behaviour. Life would be easy if people responded to health messages by doing as they were advised, but many do not. Why? This is because *awareness* of health messages and knowledge alone are not enough to change behaviour. To make real changes, we need first to overcome 'barriers to change' in our life and experience.

At this point in the interview, a patient may have any number of barriers to overcome in this most personal and powerful area of experience. Such barriers might arise from any aspect of the individual's life and experience.

For example:

5.3.1. Gender barriers.

Essentially, these can arise from the different expectations and values relating to male and female sexuality.

- a) Women may sometimes have little control over when, with whom, and under what circumstances they have sex. They might therefore not be in a position to protect themselves, even if they so wish or have the means (e.g. a condom).
- b) For men, the expectations can be very different, although young men in particular can be under peer and social pressure to conform to local male norms.

5.3.2. Cultural practices

Culture practices may help or hinder the client's ability to change. Consider the possible barriers to change in relation to: age differences at marriage, wife inheritance, puberty rites, child-rearing and so on, as well as the values of family and community.

5.3.3. Religion

Religion may, under some circumstances, contribute to adoption of safer sexual behaviour. However, it can pose major barriers to change if it discourages open discussion about sexuality and use of protective measures.

5.3.4. Poverty, social disruption and civil unrest

Poverty, social disruption and civil unrest force women and girls in particular (but, sometimes, boys) into exchanging sex for material favours or even for survival. In less extreme situations, lack of access to education and employment may force women to exchange sex with a number of partners in return for food, shelter and clothing for themselves and their children.

5.4. Changes the client will make in sexual behaviour

Having asked the client to identify ways they might change and explored any barriers to doing so, you can now help the patient to decide which change would be easiest and/or most effective – and how to put it into practice.

The change most likely to succeed is the one that fits most easily with the client's present lifestyle and that best overcomes any relevant barriers.

A useful approach might be to help them to analyse the costs and benefits of changing their behaviour. For example, you might say that a *benefit* of continuing the existing behaviour is that no effort need be made, while the *cost* may be further STI infection and complications. In contrast, a change in sexual behaviour has the benefit of protection against STIs but involves a number of possible costs, from the price of condoms to the need to obtain the partner's agreement to use condoms.

It is not quite enough simply to have the client agree and choose a particular safe behaviour. We can all say we will do something – but will we? Ask *how they will put it into practice and when* and what they will do if, for any reason, they are tempted to practise risky sex.

These are difficult issues to discuss, but we will explore some useful skills for you in the next section of this Module.

6. EDUCATE AND COUNSEL-HOW?

In this section we answer the question: *how* do you educate, counsel and support the patient or client.

Essentially, patients and clients need to make three decisions: to comply with treatment, to change their sexual behaviour and to have their sexual partners treated.

The information and advice is not enough. We need to *educate* each patient. In fact, education is crucial to the success of the whole management of STI. Once the patient or client has assimilated the basic facts they will need to make important decisions about their lifestyles. Counselling will help them make such decisions.

Education is part of a process of enabling someone to understand the nature of the infection or disease. Counselling is a process that enables people to change, to make choices and decisions. In order to change, the patient must *want* to change.

Helping patients and clients achieve a desire to change

We can achieve this in a number of ways. *First, the communication skills we explored in Module 3 are important: your use of open questions, facilitation, summarizing and checking, reassurance, direction, empathy and expression of partnership.* These are essential for asking questions and helping the patient deal with emotions.

As you begin to educate, counsel and motivate your patient to change, you will need these additional skills:

- explanation and instruction
- modeling
- reinforcing strengths you see in the patient
- helping the patient explore choices
- rehearsing what the patient will do or say
- confirming the patient's decisions.

We will explore each of these skills in turn, illustrating each one with examples from two of the case studies: Sophal and Navy.

Navy's interview in particular illustrates the powerful feelings of shock and hurt that news of an STI/RTI can bring. For some patients this comes from a sense of personal shame; for others it may be caused by the collapse of security or trust in a long-term relationship. Whatever the source of these feelings, the service provider must be able to manage them in order to help the patient change his or her sexual behaviour or persuade his/her partner to do so.

This Module cannot make you become a fully trained counsellor. If you have already had any training in educating or counselling patients, you should already have the above skills and more. Use this section to refresh your understanding of the skills and please be willing to help any colleagues practice them.

6.1. Explanation and instruction

These are skills that many service providers use most of the time.

Instruction Telling patients what to do or how to do something, such as use a condom or take medication:

“Remember to complete the whole course of tablets, right to the last one...”

Explanation Telling patients how or why something should be done:

“You have pain low in your tummy because of an infection passed to you during sexual intercourse...”

Even here it may be possible to develop your skills a little more. For example:

- are you communicating clearly and simply?
- do you adapt your pace and language to the needs of the patient?

How can you find out if you are communicating effectively? The best way is to give the patient or client time to ask questions. If they seem anxious or confused, stop and check: *“Is what I’m saying making sense to you?”*

Also, ask them to summarize what you’ve said: *“I’ve covered a lot of information and I want to be sure I’ve done so clearly. Please tell me what you need to do in your own words.”*

In the last section we stressed the importance of asking patients for their opinions. For example, in explaining risk behaviour, we suggested that it would be useful to ask a patient what behaviour he/she thought risked STI/RTIs infection. So, as often as you can, find out what the patient already knows before explaining something in detail.

Here’s an example from Navy’s interview.

- | | |
|-------------------------|---|
| Service provider | <i>“Please don’t worry Navy, I’m going to help you all I can. Your illness is caused by an infection. Do you know how you got the infection?”</i> |
| Navy | <i>“Well, I’m not sure but... um...”</i> |
| Service provider | <i>“Yes?”</i> |
| Navy | <i>“Well, perhaps it is something I ate?”</i> |
| Service provider | <i>“I’m afraid not. You have pelvic inflammatory disease. It’s usually a complication of a sexually transmitted infection. Do you know what that means?”</i> |
| Navy | <i>“Well, that comes from touching dirty people... but it can’t be that.”</i> |
| Service provider | <i>“You’re right, it’s not that. Illnesses like this one are caused by an infection. The infection is passed from one person to another during unprotected sexual intercourse with a person who has such an infection. Unprotected sex means sex without a barrier, like a condom. This may be upsetting (navy looks puzzled). You need some time to think about it? Have you any questions you want to ask me about this?”</i> |

- Navy** *“But I only make love with my husband. He’s not ill...”*
- Service provider** *“He does not necessarily have to feel ill, Navy. Some people may have an infection without any symptoms showing.”*

Notice how carefully the service provider is introducing this news to Navy. She is breaking her explanation into very small steps in order to work with Navy’s feelings.

We can summarize a useful approach to explanation as:

1. Ask for the patient’s ideas (e.g. diagnosis).
2. Discuss the patient’s ideas.
3. Explain the subject.
4. Check the patient’s understanding and feelings.

6.2. Modelling

This skill enables you to present examples of how the recommended behaviour or treatment has been successful in other cases. In other words you are offering positive models for change. This is important; models of doom such as *“If you don’t do this you may get AIDS and die!”* might contain some truth – but rarely persuade us to change. Here is part of Sophal’s interview:

- Sophal:** *“Can’t I ever have some fun without risking this STI again?”*
- Service provider** *“Of course you can have fun. It just needs to take a new form. If it’s hard to change, let’s talk about how you can be safer.”*
- Sophal** *“Are you saying there’s something wrong with having a drink first and stuff?”*
- Service provider** *“Yes, drinking tends to make people forgetful and carefree. So you are unlikely to remember to use a condom if you are drunk. But you know... I’ve noticed more guys are being careful - and they still have their ‘fun’ even while being safe. I’ve seen lots of guys lately who have decided to drink less and use a condom. They say sex is better sober too...”*

Notice that modelling also helps to stress your positive experience: *“I’ve noticed that more guys...”* for example.

6.3. Reinforcing strengths

This means pointing out a strength or positive attribute that you see in the patient – something that will help him or her recover or prevent the recurrence of STI.

Sophal *“OK, like I know it’s important but... I don’t think I could get used to it at all...”*

Service provider *“It may seem difficult but I noticed you walked 10 kilometres to get here for treatment of your infection. That means you are a very determined person. You can use this determination to keep you safe.”*

Reinforcing strengths could also be useful in helping Navy to manage her feelings so that the service provider can direct her back to treatment:

Navy *“I feel... as if my whole life has been broken. I can’t cope with all this... Does this mean I was infected by my husband?... What am I going to do?”*

Service provider *“I appreciate your feelings Navy. You care for your husband and family, I am sure, and those feelings will help you to get through the next few days... but first, let’s talk about how we can get you better.”*

Navy *“Yes, yes... you’re right of course. I’ve got to think about this for a while: are you going to give me some tablets?”*

6.4. Exploring choices

This is about reviewing the patient’s alternatives or steps towards curing the current STI or preventing another one. The patient can then decide which is best and feasible.

Sophal *“So it’s condoms or one partner or sex without penetration...”*

Service provider *“That’s right. You can either settle down with one partner or, if you’re not ready for that, protect yourself with condoms or nonpenetrative sex. Which will be easiest for you right now?”*

Sophal *“Condoms I suppose. I’m not going to settle down yet!”*

Offering a choice also empowers the patient, who feels more in control of the decision that he/she will make. The patient may have a sense of ‘ownership’ of the decision:

Service provider *“For today Navy, I’d like you to make a choice. Would you prefer to avoid sex until you have finished the treatment or to ask your husband to use condoms?”*

Navy *“That’s easy: no sex for a while. That won’t be a problem because he knows I’m not feeling well. It’ll give me time to think about things a bit.”*

Service provider *“Yes, it will: that’s a good idea.”*

6.5. Rehearsing decisions

When you feel sure that the patient has reached a decision on the appropriate safe behaviour(s), it is important to ask him or her to work through the steps to put the decision into practice. Here are two examples:

Service provider *“Very good Sophal. How are you going to explain this to your girlfriends?”*

Sophal *“Well, I could start by saying there are lots of bad diseases around and that we must be careful to avoid them.”*

Service provider *“That sounds good. Go on.”*

Service provider *“So, Navy, you’re planning to avoid sex until you’ve finished the tablets. Your husband needs to be treated as well... how will you approach him about it?”*

Navy *“I need to talk to him about a few things. I mean, is it something serious or is he just playing around? Or perhaps I’ll just ask him to come and see you... so you can treat him...”*

Rehearsal is also useful when you want to check that the patient has understood your instructions on treatment.

6.6. Confirming decisions

This is a useful way to conclude the interview. You have helped the patient to prepare for what he/she will do after leaving the health centre. Asking the patient to confirm a decision helps him or her to feel motivated on leaving the centre. Having reinforced the decision to you, he/she is much more likely to practice safer sex than before:

Service provider *“Well, Sophal, I think that’s about everything. Just tell me once more what you intend to do with these tablets.”*

Sophal *“I’m going to take all of them just as I’ve got written on this piece of paper – I’ll keep the paper to remind me – and I’ll not have sex with my girlfriends until I’ve completed my treatment... but I’ll buy some condoms just in case...”*

Service provider *“You’re being very brave, Navy and that’s important. Go over your plans with me once again.”*

Navy *“Get better, take all the tablets, find time to talk to my husband about a few things. And he needs treatment too...”*

Service provider *“Yes, well done. And you will come and see me again if you need to?”*

Navy *“Yes. I will.”*

7. ROLE PLAY INSTRUCTION

7.1. Action plan 1

If you are studying with a group of people as part of a course, your trainer will guide the role-play and explain what you have to do.

If you are studying on your own, follow the guidance below very carefully and, if possible, ask two other service providers to work on the role-plays with you. They should either be studying the programme or be already trained in the case management of STIs.

The aim of this role-play is to practice the necessary skills and issues to educate patients up to the point when the patient appreciates *the need to change sexual behaviour, including what constitutes risky and safer sexual behaviour*. This will enable you to:

- apply effective communication skills when educating and counseling patients about STI/RTIs
- clarify skills on which you want to work further.

To practice without a trainer, three people need to take part. In each role play one person should be the patient, one the service provider and the third person should observe the role-play and provide constructive feedback to help the 'service provider' develop his or her skills. Here is what to do.

1. Please read the four case studies below in order to get a general picture of each patient described. There is no need to take notes or develop any of the case studies. Remember that the service provider has already taken the patient's history and diagnosed the STI.
2. Decide who will first be the patient, the service provider and the observer.
3. The patient should select one of the case studies. Base your selection on the study that represents a patient similar to one you commonly see in your clinical setting or that presents issues you want to learn to deal with more effectively. Tell the others which case study you have selected.
4. Prepare for the role-play by studying the guidance on the next few pages for the patient, the service provider and the observer.
5. When the role-play is completed and each of you is satisfied that you have given or received sufficient feedback, swap roles and repeat steps 2 to 4 above, so that each learner has the opportunity to practice education and counselling skills.

4-Case studies presented in the beginning of the module describing about Pao, Sophal, Navy, and Mony.

7.1.1. The patient's role

Please reread your selected case study very carefully, because your aim is to respond as realistically and honestly as you can to whatever the service provider says and does. Do not try to make it either easy or difficult for him or her.

1. **Before the role-play:** based on the limited information you have about the patient, decide what information you might need to answer the provider's questions. Common questions might be about how many partners you have, whether you use condoms regularly and what you know about the transmission of STI/RTIs.
2. Note your *feelings* as this patient. For example, how do you feel while waiting for your diagnosis? What questions, if any, do you have for the service provider? What is worrying you?
3. **During the role-play**, identify as much as you can with how this patient would behave. Use empathy to experience what the patient might feel in this situation.
4. **After the role-play**, you will be the first to give feedback to the 'service provider'. Use this opportunity to explain how you felt during the interview. Then give your feedback on both what worked well and what did not. For example, you might tell the service provider you felt reassured by the way they spoke softly to you, so that others would not hear and that you only wish they had given you more time to talk about your feelings about having the STI. You felt a little rushed at times.

Very specific feedback is also helpful, such as *"I didn't understand when it was time to put on the condom... right away or just before the man wants to have intercourse or what?"*

5. Next, the service provider and then observer will review the exercise. During that discussion, feel free to add any useful insights you have into the service provider's behaviour. At this point, make sure that your suggestions are positive ones that will help the service provider to usefully develop his or her skills.

7.1.2. The service provider's role

Your overall aim is to obtain clear feedback on your present skills and areas that you might usefully rehearse or refine.

During the role-play, your aim is to obtain the patient's compliance on treatment and understanding of safer sex to prevent future infections.

Remember to use your skills in education and motivation to help the patient make choices and confirm any decisions.

1. Read the observation checklist very carefully to review the skills and themes that the observer will be looking for in your interview.
2. Reread the patient's selected case study to familiarize yourself with what you have already learned while taking a history. If you wish, make notes on any key questions you want to ask.
3. Conduct the interview, starting with your explanation of the patient's STI and stopping when you feel sure that the patient understands high-risk and safe sexual behaviour – or after the agreed time if that comes first.
4. After the role-play, allow the patient to give you feedback on how he/ she felt during the interview. Next, give your own views and feelings about how the education process went. Finally, the observer will provide feedback based on the checklists he or she is using. Feel free to ask either the patient or observer to clarify what they have said: you want to finish the role-play with helpful objectives and, hopefully, confirmation of your perceived strengths.

7.1.3. The observer's role

Your aim is, after the role-play, to provide the service provider with clear, objective feedback on what he or she achieved during this education part of the interview.

1. Read through the checklist to remind yourself of the skills and issues that the service provider should use.
2. Time the interview, stopping it after an agreed time, such as five minutes.
3. As you observe, make quick notes on the skills you see the service provider use and how effectively you think he/she uses them. If possible, note examples of what he/she said or did so that your feedback will be as practical as possible.
4. Ask first the patient and then the service provider to review the interview. Start your own feedback by responding briefly to the service provider's self-criticism and then give your own feedback, skill by skill or however else you think appropriate. Be willing to give negative criticism if necessary, but offer it in a constructive way:
5. "When the patient said... you said... Perhaps it would have helped if..." and so on. Always stress the service provider's positive achievements and be as practical as you can. For example, suggest alternative ways the service provider could have introduced

specific issues or ask him/her to identify when another skill might have been more appropriate than the one used.

6. Finally, lead a discussion about what the three of you have learned from the role-play. This Module might not have mentioned some issues appropriate to your region.

| Observation checklist | |
|---|--|
| <p>To what extent does the service provider:</p> <p>a) Cover these education issues?</p> <ul style="list-style-type: none"> • the STI, its implications and treatment, and the importance of <i>complying</i> with treatment • the need to treat any sex partners • the patient’s risk level and future prevention options • the need to change sexual behaviour and what constitutes safer sex (does the patient fully understand the need to change?). | |
| <p>b) Use these education and motivation skills?</p> <ul style="list-style-type: none"> • explanation and instruction • modeling • reinforcing strengths • exploring choices • rehearsing decisions • confirming decisions | |
| <p>c) Apply these communication skills?</p> <ul style="list-style-type: none"> • Facilitation • summarizing and checking • reassurance • direction • empathy • partnership | |

7.1.4. USING CONDOMS TO STAY CURED

As you know, condoms help people to have safer sex by preventing direct contact of the genitals with either vaginal or seminal fluids. Using condoms is especially important if your patient has sex with more than one partner or with one partner who has other sexual partners or with a new partner. However it is

not enough to know that condoms are important. Patients must also know how to use them properly.

This section will enable you to:

- list the benefits of using a condom
- demonstrate how to use a condom
- explain how to keep and dispose of condoms

Many people resist the idea of using condoms, not because of the embarrassment or cost of buying them, but due to misconceptions and myths about them. For instance, they think that condoms spoil sex or that they are too big or too small. There are often myths about them – such as the condom itself is infected with STI. People may also associate them with illicit sex – rather than for use with a regular partner.

Condoms are an important option for any sexually active person for both pregnancy prevention and disease prevention. In addition, they have other benefits. These are factors that can be cited in condom promotion. As well as stressing their benefits, use all the skills we have discussed as well as your general communication skills. In other words, ask the patient what they think of condoms, discuss their response and any barriers towards using them and suggest appropriate benefits.

If the patient continues to resist their use, repeat the other forms of safer sex and ask if one of them would be preferable:

| | |
|------------------|---|
| Sophal | <i>“You said condoms are one way of keeping safe, but I wouldn’t use them.”</i> |
| Service provider | <i>“Why not?”</i> |
| Sophal | <i>“Well, they’re a nuisance. I mean they get in the way, if you know what I mean.”</i> |
| Service provider | <i>“So you have tried to use them before?”</i> |
| Sophal | <i>“Well, no. But I’ve been told that.”</i> |
| Service provider | <i>“Well, they needn’t get in the way. You can be shown how to use them. I know a lot of men who say they have fun with them because their partners are involved in putting them on.”</i> |
| Sophal | <i>“Yes, but what if it comes off?”</i> |
| Service provider | <i>“It can’t come off if you use it properly, I assure you. Any other reasons for not liking them?”</i> |
| Sophal | <i>“No, that’s the main thing.”</i> |

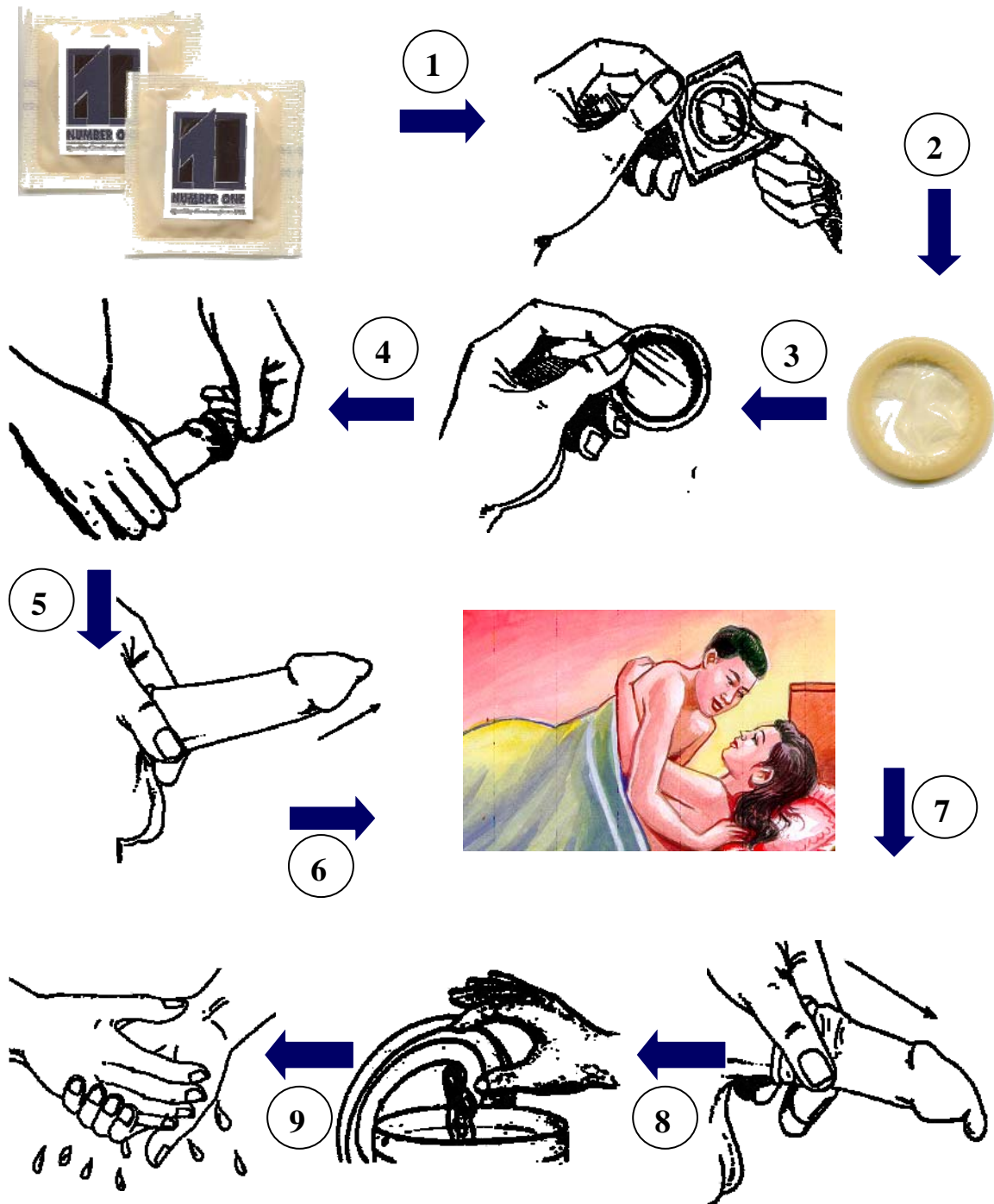
- Service provider *“The most important thing about condoms is that, if you use them regularly, you protect your partners as well as yourself. STIs in women can be very serious, so you should feel responsible for their safety too.”*
- Sophal *“Mmm.”*
- Service provider *“Some men say that condoms can actually make intercourse last longer. What do you think of that?”*
- Sophal (Laughs in embarrassment) *“Sounds OK.”*
- Service provider *“Would you be willing to try using them?”*
- Sophal *“OK, I could give them a try.”*
- Service provider *“Good – but remember, if you don’t use condoms, you must practise non-penetrative sex. Let me show you on this penis model how to put on a condom properly.”*

7.1.5. Demonstrating the use of condoms

Please look an illustration some of the main steps in correct use of a condom. It is important to first demonstrate its use and then ask the patient to practice the same method, helping him or her to get it right. This means that you will need a supply of condoms and a penis model or something to represent one, such as a banana or broom handle.

In your demonstration:

- stress the importance of carrying condoms all the time – the patient should never be without one
- show the expiry or manufacture date and explain that the condom should not be out-of-date, smelly, sticky or hard to unroll
- explain how to open the package carefully, using the tear-point
- show the correct side of the condom to insert over the penis, explaining that it will not roll down if placed the other way
- show how to hold the tip of the condom to press out air, before rolling it all the way down the erect penis
- emphasize that the condom must be rolled right down to its base
- explain that the condom should be removed *just as the penis begins to lose its erection* and that the patient should hold it carefully at the base and slide it off slowly
- explain that the patient should tie the top of the condom and dispose of it safely



These are three other tips you might want to give the patient:

- the importance of not using oil or oil-based lubricants such as petroleum jelly, because they damage latex condoms (water-based lubricants such as glycerin and K-Y Jelly are safe, as are most spermicidal foams)
- the need to dispose of condoms hygienically
- condoms should not be re-used

7.1.6. Questions

1. A young man with an STI tells you impatiently: “I already know how to use a condom! What’s the point of demonstrating it to me?” What might you say to him?

2. There are many myths about condom use. Which of the following statements are true or false? Circle the responses you think are correct.

| | TRUE | FALSE |
|---|--------------------------|--------------------------|
| a) Condoms can get lost inside the woman. | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Condoms do not protect against STIs, including HIV. | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Condoms can be kept in a pocket or wallet indefinitely. | <input type="checkbox"/> | <input type="checkbox"/> |
| d) It is OK to use glycerine or water-based lubricants with condoms. | <input type="checkbox"/> | <input type="checkbox"/> |
| e) Pull the condom tight over the head of the penis to ensure a snug fit. | <input type="checkbox"/> | <input type="checkbox"/> |
| f) Squeeze the air out of the tip of the condom as you put it on. | <input type="checkbox"/> | <input type="checkbox"/> |
| g) Condoms should be stored in a cool, dark, dry place. | <input type="checkbox"/> | <input type="checkbox"/> |

Ideally, STI/RTIs would provide patients with free condoms. If this is not possible, make sure you know the answers to questions like these, so that you can advise your patients accordingly:

“Where can I buy condoms?”

“How much do they cost?”

“Are they of good quality?”

“Are different sizes or different characteristic available?”

7.1.7. Review

Now that you have completed Module 4, you should be able to:

- explain why education, counselling and emotional support are vital in the management of clients with STIs identify the main issues on which you need to educate and motivate patients
- recognize and practice a number of additional skills during this part of the interview
- provide basic pre-test and post-test counselling for HIV screening
- demonstrate the use of condoms and explain their benefits

The next step is very important because you need to practice what you have learned. Action Plan 2 will help you to do this.

We also offer an optional assignment that you might like to consider. It asks you to consider other opportunities at your health centre to educate patients about STI.

7.2. Action plan 2

The aim of this action plan is to practice educating patients on all the remaining issues, including the use of condoms. The only issue to leave out is the sixth one: treating the patient's sexual partners. If you are studying with a group of learners and a trainer, then your trainer will guide you on this role-play. If you are studying on your own, please arrange to work with two other service providers just as you did before—preferably they should be the same people as for Action Plan 1.

Take up the same case studies as before, at the point where the role-plays finished last time. This should be at the point where the patient has understood what is meant by safer sexual behaviour. The service provider's remaining tasks are these:

1. To identify any barriers the patient may have to changing current behaviour.
2. To help the patient identify appropriate changes and decide which one(s) he/she will adopt as new safer behaviour.

This should include using condoms, in which the service provider should educate the patient on relevant personal benefits as well as demonstrating how to use them.

Please arrange your role-plays exactly as you did for Action Plan 1, except that, this time the 'service provider' can concentrate on developing particular skills identified during his/her role-play and feedback. The observer should look for the same educational and communication skills and concentrate on the issues above.

In collecting feedback, two important questions for the 'patient' are:

- to what extent do you, as the patient, feel prepared and willing to adopt safer sex practices?
- what did the service provider do to help you reach this decision? Or why was the service provider unable to persuade you of this decision (what else, if anything, could he/she have done?)

7.3. Assignment: other opportunities for patient education

The STI/RTI clinics could offer many opportunities to reinforce and supplement the service provider's efforts at patient education. These opportunities could be provided by people in different areas of the clinics as well as by a range of media.

You might like to consider other opportunities for patient education within your clinic. Here are some suggestions.

7.3.1. Who?

All staff who meet patients can assist with patient education. For example, staff at reception might contribute by demonstrating respect, empathy and reassurance – which maintains patients’ dignity and reduces any fear or shame they might be feeling.

7.3.2. Where?

Patient education can take place at all the stages of a patient’s visit to the clinic, from the registration desk to the waiting room, the examination or interview room and the dispensary.

7.3.3. How?

A health centre can draw on a wide range of media for its education process, limited only by the resources available. To name a few:

- posters
- brochures, leaflets to be read on-site or taken away as handouts
- audio tapes playing
- video tapes playing
- small group discussions and more formal health talks
- condom demonstrations
- drama presentations by local theatre groups or health educators

Walk round your clinic as if you were a patient coming in for treatment. What other opportunities for patient education could the clinic usefully adopt?

- How would your suggestion contribute to effective patient education at the centre?
- Who could be responsible for developing this suggestion?
- What resources would be needed?

Please discuss your suggestions with your trainer or supervisor.

7.4. Answers

1. Do not worry if you found this exercise difficult or if your answers differ slightly from ours, below. You may well have considered issues equally relevant to ours: if at all unsure, talk to an experienced colleague.

1a) i) The risk behaviour of which we are aware is Pao’s occupation, which involves sex with a number of casual partners. We do not know whether she mixes sex with alcohol or drug consumption: the service provider would need to check this out with her.

ii) Paol’s barriers to change? Two major ones: her reliance on sex work as her only source of income to support her child and family and her inability to persuade clients to use condoms.

Presumably she feels that she cannot afford to lose clients by insisting on this.

1b) i) Sophal's risk behaviour includes alcohol and drug use as well as unprotected sex with a number of partners, including casual partners whose sexual practices he knows nothing about. He also has an incorrect idea about safe sexual behaviour, which gives him a false sense of security.

ii) Barriers to change will include the effect that any change would make on his self-image as a young 'street-wise' male, together with his belief about what constitutes acceptable behaviour. Has the service provider any chance of persuading such a person to change his lifestyle?

1c) i) The risks for Navy are different in that they are beyond her immediate control: it is not she who engages in risky sex, but her husband. We know no more about his risks in detail than does Navy.

ii) Her barriers to change? Clearly, she is financially dependent on her husband. In addition, before deciding on long-term behaviour, she must overcome two major barriers: her shock at the discovery of his likely behaviour and how this is going to affect her marriage.

1d) i) Mony has not yet been practising risky behaviour, but he has attended the health centre because he is afraid of doing so. Clearly, a cultural or religious practice is the unfortunate cause of his dilemma.

ii) The barriers in his case are that he does not want to offend against his culture and his religion. He will be under peer and societal pressure to enter into a relationship that will expose him and his wife to HIV.

2. In fact, condoms can provide a number of possible advantages:

- they prevent transmission of STI, including HIV
- they help women to avoid pregnancy
- condoms reduce the risk of transmission of an STI if a patient does not wait for the STI to be cured before having sex but, ideally, the health care provider would encourage them to wait!
- women feel dryer inside
- the patient will feel safer, with fewer worries
- many men can prolong intercourse if they wear a condom
- bed linen needs washing less often!

3. Many young men might respond as this one does – and some may indeed know how to use condoms correctly. For this reason, it is important to remain tactful; you might respond by accepting his statement and asking him to demonstrate

their use to you. “*That is good, why don’t you show me (on this model) how you would use one?*” This gives you the opportunity to check whether he can use a condom properly and to remind him of the many advantages of doing so. (If, as may be the case, he is too embarrassed to show you, then you could offer to demonstrate it, asking if this is indeed what he would do.) Alternatively, you could add a new element, such as putting on a condom whilst wearing a blindfold: simulating putting on a condom in the dark. The important thing is not to embarrass or dispute with the young man.

4. Did you spot the true and false statements? Check your responses against ours below.

a) *Condoms can get lost inside the woman.*

False. There is always the slight possibility that, if the man does not use the condom properly, it could slip off before withdrawal, but it can be retrieved. It could not get lost inside.

b) *Condoms do not protect against STIs including HIV.*

False. Properly used, condoms prevent the transmission of STIs, including HIV.

c) *Condoms can be kept in a pocket or wallet indefinitely. **Again, false.*** A wallet or pocket is too warm to store a condom for a long period. Advise patients never to use condoms that are dry, dirty, brittle, yellowed, sticky, melted or damaged.

d) *It is OK to use glycerine or water-based lubricants with condoms.*

This one is true. However, remember to advise the patient that it is risky to use grease, oils, lotions or petroleum jelly to make condoms slippery – the oils cause condoms to break.

e) *Pull the condom tight over the head of the penis to ensure a snug fit.*

False. If someone does this, the condom may burst. Always leave space for semen at the tip of the condom.

f) *Squeeze the air out of the tip of the condom as you put it on.*

True. This will leave space for the semen to collect.

g) *Condoms should be stored in a cool, dark, dry place.*

True. Condoms do not like sunlight, moisture or heat, which is why they do not like living in pockets or wallets too long.

**National Guidelines on Sexually Transmitted Infections (STI)
and Reproductive Tract Infections (RTI) Case Management**

MODULE 5

PARTNER MANAGEMENT

1) PRINCIPLES AND PROBLEMS

In previous modules, we concentrated on the earlier stages of the interview. These included taking the patient's history and examining him or her, making a syndromic diagnosis, and educating and counseling the patient on a number of important issues, from complying with treatment to changing his/her sexual behavior.

In this module, we cover the final issue to explore with the patient: the need to treat his/her sexual partners. We will also consider which partners to treat and how to treat them.

This section will enable you to:

- ☞ Explain why 'partner management' is such an important part of STI Case management
- ☞ Describe its possible impact on the patient and his or her partners apply two key principles to every aspect of partner management compare the costs and benefits of two approaches to contacting partners.

1.1 Why do you think partner management is so important in STI case management?

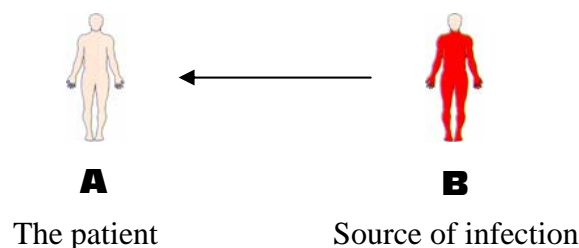
Partner management is so important because its purpose is to break the cycle of STI transmission, by treating, educating and counseling both the patient and his or her sexual partners. Notice that partners are treated for the same STI as the patient. Also, partners are treated whether or not they have signs of STI – ensuring that even those people who are asymptomatic are treated.

Who to treat?

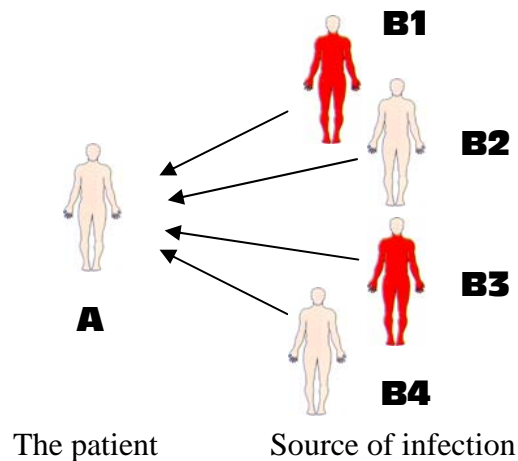
These are the main features of partner management: treatment of the entire patient's sexual partners for the same STI as the patient, and treat any new STI identified.

As our management is syndromic, the treatment must be given presumptively and the partner treated even if there are no symptoms or signs of STI. Some clinical research departments study the transmission of STI in order to identify the source of infection. Should we do this? Is it important to do so? Let's consider the issue a moment, with some examples.

A patient we diagnose as having an STI has been infected during unprotected sexual intercourse with an infected partner:

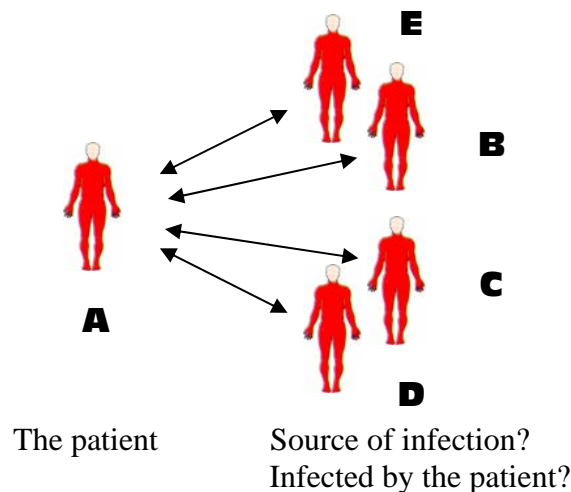


But if the patient has had more than one sexual partner, any of these partners could have been the source of the infection:



Equally, from the time that the patient was infected with an STI, he/she has also been infectious: able to transmit the STI to other sexual partners. It is often difficult to identify when the patient was infected; for practical purposes, we can assume the period of infectiousness to be two months.

So we must also assume that for two months before the patient came for treatment, all of the sexual partners during that period could have been infected:



1.2 It is easy to identify the source of a patient's infection on only two occasions. Can you work out what they are?

In fact, only in these two cases is it possible to identify the source of an STI:

- ☞ When the patient has had unprotected sexual intercourse with only one other person in the last two months – that person is the source of the infection.

☞ When the patient is a baby with neonatal conjunctivitis – the mother is the source of the infection.

Identifying the source has no particular value because our aim is to treat all partners – or all those partners we can reach – and their partners in turn.

So far, we have identified the three main features of partner management, and we have stressed the importance of trying to treat, educate and counsel all the sexual partners with whom the patient has had unprotected sexual intercourse. Before considering how to manage the treatment of partners, we would like you to consider the possible impact on the individuals concerned.

The impact on individuals

When taking patients' history and educating and counseling them, you know the importance of showing respect, responding to emotions and helping patients to overcome barriers and change behavior. Awareness of having STI can affect a patient's relationships, lifestyle – even his/her income, as we have discussed in earlier modules.

In this final stage of the interview, we must explain to the patient that his or her partners also need to be treated. For many patients this is uncomfortable news. Indeed, it might cause far-reaching damage to the individuals concerned. Why? Please consider the next question.

1.3 When might news of STI have a serious effect on the relationship between patient and partner?

News of STI can be especially damaging when a patient or partner hears of their partner's infidelity for the first time. Equally, someone with mistaken ideas about the cause of STI may respond in ways

That is inappropriate or extreme. Patients are sometimes blamed for being the source of infection when, as we have seen, it is rarely possible to identify the source of infection.

Such events might lead to marital breakdown, divorce, loss of home or livelihood, or even ostracism from the social group. You might like to discuss this matter in more detail with your colleagues or trainer.

So it is clear that any approach to partner management must take account of the possible impact on the lives of each individual.

1.4 What two principles should guide service providers in order to protect their STI patients?

The two principles we were thinking of are that partner management must be **confidential** and **voluntary**. The privacy of both patient and partner must be maintained and no-one should be forced to say or do anything they are unwilling to do. These two principles are crucial to any approach to partner management.

Partner management must comply with the principles of confidentiality and non-compulsion: patients should never be forced to divulge information about partners, and their identity must not be disclosed to anyone outside the health team.

To be successful in limiting the transmission of STI, any approach to partner management must have these three features:

- ☞ Treatment of all a patient's sexual partners
- ☞ Treatment for the same STI as the patient, and
- ☞ Treatment of any new STI identified.

Presumptive treatment must be given for the same STI as for the index patient, whether or not the partner has symptoms or signs of the infection. It may not be necessary in referral centers where available and reliable quality laboratory diagnosis is available to exclude the infection.

Finally in this section, we will introduce two approaches to partner management and explore how well each approach meets these criteria.

2) APPROACHES TO PARTNER MANAGEMENT

If the purpose of partner management is to treat as many of the patient's sexual partners as possible, there are two approaches to contacting sexual partners:

- ☞ **by the patient:** this is known as patient referral
- ☞ **by a service provider:** this is known as provider referral.

2.1 Patient referral

In this option, the patient takes responsibility for contacting partners and asking them to come for treatment. For reasons we have explained already, many patients might feel unwilling or unable to discuss the STI with partners, so the service provider's aim is to help the patient decide what to do. In fact, a patient might approach partners in several ways:

- ☞ by directly explaining about the STI and the need for treatment,

- ☞ by accompanying a partner to the health centre or asking the partner to attend without specifying why,
- ☞ by giving each partner a card asking him or her to attend the centre.

2.2 Provider referral

This is where a member of the health team contacts the partners of a patient with STI. The service provider might be the person who treated the initial patient or someone whose role includes searching for and treating partners. The service provider asks the partner to attend the clinic for treatment.

2.3 Which is the better approach?

Bearing in mind the two principles of non-compulsion and confidentiality, note down in the box below any possible advantages or disadvantages of each approach that occur.

| | Patient referral | Provider referral |
|----------------------|---|---|
| Advantages | <ul style="list-style-type: none"> – The patient has control over decisions – so both confidential and voluntary. – No cost to the health centre. | <ul style="list-style-type: none"> – If successful, able to contact and treat more partners- more efficient. |
| Disadvantages | <ul style="list-style-type: none"> – Depends on willingness of patient to refer partners. – Patient may require support from service provider. | <ul style="list-style-type: none"> – Depends on willingness of patient to divulge names. – Cost, time and practical problems of tracing partners. Need for extra, highly trained outreach staff. – May be viewed by patients as a threat to confidentiality. |

The most difficult part of this question is to find positive advantages for provider referral. At a price, provider referral can contact and treat more partners – but at the possible expense of confidentiality. Why? Finding partners can be difficult – even when their name is known. Also, service providers trying to find someone may quickly become known in any tight-knit community. Then there is the matter of paperwork: great care must be taken to ensure that such paperwork protects the patient's identity. For all these reasons, the patient referral is the better approach for partner management.

3) PATIENT REFERRAL

The success of patient referral depends on your skills as a service provider: what you say to the patient, how you say it and, equally important, how you listen to the patient and respond to what he or she says. This section will enable you to apply the skills you learned in earlier modules to this last and essential objective of treating the patient's partners.

This section will enable you to:

- define four important areas to explore with the patient
- review the communication and education skills you need to motivate and support the patient
- explore the value of referral cards at your health centre.

3.1 Educating and counseling the patient: the issues

You may remember from Module 5 that partner management is the sixth issue on which we need to educate and counsel the patient. The service provider needs to:

- Explain why it is important for all the patient's partners to be treated remind the patient how to avoid re-infection
- help the patient decide how to communicate with partners if possible, obtain the names of the patient's partner(s).

To clarify these points, please answer these questions.

3.1.1 A patient says he would prefer not to talk to anyone else about his STI. He asks "Why do you need to treat my wife and girlfriends?" What would you say to him?

In fact you might give any of these reasons why partners must be treated:

- first, anyone with whom the patient has had unprotected sex in the last two months may have been infected by the same STI,
- a partner may be infected even though he/she has no symptoms,
- until partners are treated, they risk infecting anyone with whom they have unprotected sex. This includes the risk of re-infecting the patient,
- women also risk very serious complications if an STI is not treated.

3.1.2 what must a patient do in order to avoid being reinfected with the same STI?

This should not have been too difficult. To avoid reinfection, a patient should:

- avoid having sex until they and their sexual partners have completed a course of treatment for the STI,
- afterwards, use a condom or practise non-penetrative sex or have sex with only one faithful partner.

3.1.3 We have already said that patients should not be forced to divulge the identity of their partners. When might it be useful to obtain details about their partners?

Knowing the identity of a patient’s partners is essential only if you need to use provider referral because the patient refuses to make contact with them. But remember that, even in this situation, the patient should not be forced to divulge names – indeed, the patient may not know the name or whereabouts of a casual partner may be useful for any internal records you may keep at the centre. For example, if a patient has asked partners to ‘drop by’ the health centre without specifying why, records might be the only way to identify what syndrome to treat the partner for – especially if the partner is asymptomatic.

3.2 Educating and counseling the patient: your skills

The skills you need to educate, counsel and support the patient about provider referral are exactly the same as for history-taking and for educating and counseling the patient on the earlier issues (discussed in Modules 2 and 4).

Remember that, for the patient, anticipating the need to talk to partners about STI may provoke feelings as uncomfortable as those the patient first felt when told that he or she had a disease that was sexually transmitted.

| | | |
|----------|--|---|
| Provider | <i>“John, I said earlier that we’d need to treat your girlfriends as well... How do you feel about talking to them about treatment?”</i> | The service provider starts with an open question in order to find out how John feels and to identify any objections to patient referral. |
| John | <i>“Talk to them about it...”</i> | |
| Provider | <i>“You would find it difficult to talk to them?”</i> | Here the service provider is using empathy to encourage John to express his feelings. |
| John | <i>“Well... yes... it’s one thing to discuss being safe, but it’s something else to... well to admit to this discharge.”</i> | |
| Provider | <i>“What makes that difficult?”</i> | Open question to probe John’s objections further. |
| John | <i>“They’d say I’ve been with someone dirty.”</i> | |
| Provider | <i>“I can appreciate that that could be difficult for you. But you understood</i> | The service provider is reassuring the patient and reinforcing |

| | | |
|----------|---|---|
| | <i>so well how you really got the discharge... I'm sure you could explain that to your girlfriends."</i> | strengths to help John feel more positive about what he has to do. |
| John | <i>"What? Explain that anyone can get a sex disease if they sleep with someone without a condom? That it's not about being dirty or anything?"</i> | |
| Provider | <i>"You're right, it's not. It's just about having unprotected sex with more than one person."</i> | The service provider affirms John's words and offers further explanation to clarify what he has said. |
| John | <i>"But they haven't got a discharge or anything."</i> | |
| Provider | <i>"Women often don't have any symptoms John, but STI can be much more serious for women than for men. I need your help to make sure they do have treatment."</i> | Explanation is followed by modeling the behaviour that the service provider wants John to adopt. |
| John | <i>"Yes. So I have to say that..."</i> | |

3.2.1 Patient referral cards

A young man tells you that a girlfriend asked him to come to the clinic for treatment for an STI. He does not know the name of the syndrome and as no symptoms or signs of any infection. The name he gives for his friend is not in your centre's records, so you have no way to identify what syndrome to treat him for.

Given the high proportion of partners who have no STI symptoms, the above scenario is an example of failed partner management. We cannot treat a patient's partner unless we know who the patient was or can identify the partner's syndrome.

Patient referral cards can help to resolve this problem and many health centers use them for this purpose. Two examples are illustrated below.

| | |
|---|--|
| Card No. _____ Date of Issue: _____ Diagnostic Code: _____ Partner's name and details: _____ <hr/> Clinic: | Card No. _____ Date of Issue: _____ Issuing Clinic: Name: _____ <p style="text-align: center;">Please come to Family Health Clinic....., bringing this card with you.</p> Diagnostic code: _____ |
|---|--|

The card above is in two parts. Once the details are recorded, the card is cut in two and the right side given to the patient to pass on to the partner. The left side is retained for centre records.

The cards like this can be linked to the record systems of several centres. They also offer one way to record the numbers of partners who attend for treatment – as well as the numbers who fail to attend. This would be useful if provider referral is used to contact the partners.

To summarize then, a referral card could be extremely useful to help you identify the necessary treatment for any partner referred by a patient with STI. The card can contain any extra information that is required, but should never threaten anyone's confidentiality or risk them being stigmatized.

If your centre uses patient referral cards, we strongly advise that you make a habit of giving one or more to every patient with an STI syndrome. It is much easier to do this than it is to remember to ask if a new patient has been referred to you by someone else.

4) Provider referral

If patient referral fails..., provider referral needs special outreach staff that has been specially trained in contacting partners. It is not a viable option for most health centers.

However it might be possible to offer provider referral as a follow-up to patient referral in these two circumstances:

- a) when a patient refuses, for whatever reason, to refer partners
- b) when a patient has agreed to refer partners, but they have not since come for treatment.

If, despite your best endeavors, a patient refuses to refer a partner for treatment, provider referral may be the center's only option.

But perhaps there are still other options open to the service provider? Consider the example below.

One option might be to offer the patient a duplicate course of treatment for a partner. Many service providers would consider this highly inadvisable, arguing that these extra drugs would be sold on the illegal market or otherwise abused, or that more and more patients would demand treatment without prior diagnosis. On the other hand, some professionals argue that, given the urgency of treating partners, this option can be an effective 'last resort' if practiced with caution. They argue that offering a duplicate course of treatment should only be considered when the patient has severe barriers to referring a partner, and when the service provider knows and trusts the patient.

If a partner fails to come for treatment, an efficient recording system is essential to follow up partners who do not come for treatment. After a specific time – for example, two weeks after the patient was treated – it should be possible to identify any partners who have not come for treatment, so that arrangements can be made to contact them.

It may be useful to share data between clinics. For example, if a female patient's STI is diagnosed at an antenatal clinic, her partner may need to attend a different clinic for treatment. To overcome such an example, outreach service providers should liaise with all nearby centers offering syndromic diagnosis of STIs.

5) TREATING PARTNERS

This short section is about treating the partners of a patient with STI. In it, we answer three questions:

1. How does STI management differ when treating the partner?
2. Is it necessary to examine the partner?
3. What STI should we treat the partner for?

Question:

A young woman tells you that her boyfriend suggested she get a check-up at the health centre. She hands you a card on which you notice that the code for genital ulcer has been written.

- a) For what should you treat the young woman?
As with any partner, the young woman should be treated for the same STI as her boyfriend, the index or original patient. In this case, he had a genital ulcer, so she must also be treated for the genital ulcer syndrome.
- b) Should you also examine her? Why or why not?

It is always important to take the opportunity to examine someone who has made the effort to come to a health centre. It is important to evaluate other STIs and any other pathology the person may have. If no disease is detected the partner must still be treated for the same STI as the index patient. This may not be necessary in a centre with adequate, high quality, laboratory facilities that can exclude the infection.

The aim of partner management is to treat any partner for the same STI as the original patient. Although examining the partner is not essential, we recommend it whenever possible to check for other STI signs.

We deal with the partners of patients in exactly the same way as with the original or 'index' patient: taking their history, treating and educating them and managing their partners, in turn.

Partner Management

| Syndrome of Index patient | Treatment of partner |
|--|---|
| Urethral discharge | <i>Treat partner for gonorrhoea and chlamydia</i> |
| Genital ulcer | <i>Treat partner for syphilis and chancroid</i> |
| Vaginal discharge: Patient treated for vaginitis and cervicitis Patient treated for vaginitis only | <i>Treat partner for gonorrhoea and chlamydia</i> <i>Not necessary for the partner to be treated unless the discharge is recurrent</i> |
| Pelvic inflammatory disease | <i>Treat partner for gonorrhoea and chlamydia</i> |
| Scrotal swelling | <i>Treat partner for gonorrhoea and chlamydia</i> |
| Inguinal bubo | <i>Treat partner for lymphogranuloma venereum</i> |
| Neonatal conjunctivitis | <i>Treat both parents for gonorrhoea and chlamydia</i> |

Notice that if a female patient with vaginal discharge is diagnosed syndromically as having vaginitis but not cervicitis, her partner need not be treated unless the vaginitis is recurrent. In this case treatment is either for candidiasis or trichomonas vaginalis. There is currently no evidence that treating partners for bacterial vaginosis makes any difference.

6) CASE STUDIES

Case study 1: Sopha

Sopha is a 19-year-old commercial sex worker who lives in a slum area of town. She has one small child who is often sick. Nina has no partner. She is also using her earnings to help support her family who live in a remote village. Her family disapproves of her job but eagerly accept the money that she sends home. She is afraid of AIDS but finds that many of her clients refuse to use condoms; she also has a limited knowledge about STI. The service provider has diagnosed a genital ulcer; Sopha is afraid it might be an STI.

Case study 2: Cham Roeun

Cham Roeun is a 24-year-old single man with a good job and his own home. He does not want to settle down for a long time, describing himself as 'a good time guy'. He has three sexual partners and sometimes has casual sex too. However, he says he chooses women who are 'clean' or 'married', so he can't understand why he now has a urethral discharge. During the interview he admits that he often gets drunk or injects drugs with one of his partners before sex. The service provider has confirmed the urethral discharge.

Case study 3: Kunthea

Kunthea is 35, married with three teenage children. She relies on her husband's income from factory work to support the family. During the interview, she said that she has sex only with her husband. She has already explained that her husband often works late at the factory, and that he goes for a drink with friends occasionally: she can sometimes smell the alcohol on his breath. However she feels quite secure in his faithfulness to her. She came to the centre with no idea of the cause of her abdominal pain – the service provider has diagnosed pelvic inflammatory disease.

Case study 4: Arun

Arun is 35, married with four children and living in a rural area. He attended an urban clinic with a swelling in his groin. The service provider diagnosed it as an inguinal bubo. In answering the service provider's questions, he admitted reluctantly that he has sex with a number of partners, many of them casual. He regularly travels to the city, working away from home for three months at a time. He says that his wife is six months pregnant: he has not been home for two months though he regularly sends money home. He is currently living with a casual partner in the city.

Case study 5: Kim

Kim is a 22-year-old single male who lives in the poor area of a large city. He finished secondary school but has been unable to find a steady job in the past three years. He works at whatever casual jobs he can find, trying to save money to start a small business. Most of his friends are in the same situation. They spend their evenings together at one of the local bars. He usually has a few beers and sometimes goes home with one of the young women at the bar. He has had several STIs but because they were readily treated at the health clinic, he isn't worried about this urethral discharge.

Case study 6: Sinuon

Sinuon is a 38-year-old married woman with four children. She and her family live in a middle class area of the city. Both she and her husband work to put their children through school. Two months ago, Sinuon started a sexual relationship with a young male colleague at work. When she noticed her genital ulcer, she felt sure it was punishment for her infidelity and stopped the relationship. She has come to the health centre feeling very guilty and anxious.

Case study 7: Srey Na

Srey Na is a 15-year-old girl, working for her uncle as a housekeeper. Soon after she moved into his house, Srey Na was raped by her uncle and since then he has been demanding sex on a regular basis. She tried to run away back to her family but he caught her and beat her. Her uncle brought her in because she was complaining of lower abdominal pain.

Case study 8: Chuon

At the age of 26, Chuon has finally decided to settle down. He is engaged to a 24-year old teacher, and very much in love. She has asked him to visit the clinic because she thinks he might have an infection. He has handed in a referral card; the code on it indicates that his fiancée has a vaginal discharge, caused by both vaginitis and cervicitis.

7) FOLLOW-UP VISITS, TREATMENT FAILURE AND REINFECTION

Are follow-up visits really necessary? It can be useful for health care providers to see some patients again, to find out whether treatment relieved symptoms and achieved a clinical cure. Routine follow-up visits can be an inconvenience for patients, however, and an unnecessary burden on busy clinic staff. Syndromic management provides effective treatment for the most common STIs/RTIs and most patients will get better quickly. It is usually not necessary to have them come back just for a “check up” if they have taken their medicine and are feeling better. However, it is a good idea to advise patients to come back if no improvement is seen after a week of treatment (2–3 days for PID). Patients with genital ulcers should be encouraged to return after 7 days, because ulcers often take longer to heal (treatment should be extended beyond 7 days if ulcers have not epithelialized—formed a new layer of skin over the sore). When patients with an STI/RTI do not get better, it is usually because of either treatment failure or reinfection. Try to decide which by asking the following questions:

Treatment failure

- Did you take all your medicines as directed?
- Did you share your medicine with anyone, or stop taking medicines after feeling some improvement?
- Also consider the possibility of drug resistance. Was treatment based on the national treatment guidelines? Are cases of treatment failure increasing?

Reinfection

- Did your partner(s) come for treatment?
 - Did you use condoms or abstain from sex after starting treatment?
- Recurrence is also common with endogenous vaginal infections, especially when underlying reasons (douching, vaginal drying agents, hormonal contraceptives) are not addressed.

**National Guidelines on Sexually Transmitted Infections (STI)
and Reproductive Tract Infections (RTI) Case Management**

MODULE 6

STI/RTI

PREVENTION & CARE

FOR VULNERABLE PEOPLES

1)- PROMOTING PREVENTION OF STI/RTI AND USE OF SERVICES

A public health approach to prevention and control of STI/RTI includes **reducing barriers to services, raising awareness in the community, promoting services, and reaching out** to people who do not typically use Sexually transmitted disease/reproductive health services.

1.1. Reducing barriers to use of services

The first step to increasing use of services is to remove the barriers that keep people away. Talking with patients and community members can often identify such barriers.

People may avoid health care services because of **accessibility** barriers, such as:

- **Laws, policies and regulations**—do they place restrictions on young people or women using services, or require a parent’s or husband’s permission?
- **Location**—can people reach the clinic easily? Mobile or satellite clinics can extend the reach of clinical services.
- **Hours**—are opening hours of the clinic convenient for working people, students, and others? Special clinic sessions in the evening or at the weekend may make it possible for some people to attend who otherwise could not.
- **Cost**—can people afford the clinic fees and additional costs for laboratory tests and medicines? Costs deter people, and in the end the cost to the community will be high if rates of STI/RTI and their complications remain high.

In addition, there may be barriers to **acceptability** of services, including:

- **Stigma**—people are often afraid to use services because of critical or judgemental attitudes of staff. Non-respectful treatment by providers deters many adolescents from using health care services. Reproductive health services are often designed or perceived to be exclusively for women, which discourages men from using them.
- **Lack of privacy**—young people particularly worry that information about their health or sexual behaviour will not be treated as confidential. Steps can be taken to ensure privacy during clinic visits and confidentiality of information.
- **Poorly managed health care facility**—do people have confidence in the clinic and its staff, and feel that the quality of the services they receive is good? Improving services builds such confidence.
- **Inadequate supplies and drugs**—can people get the tests and treatment they need on-site? If not, they may decide to go directly to a pharmacy for

treatment in order to save time and money. Incompetent and disrespectful health care providers—do people feel welcomed by clinic staff? Do they have confidence in the health care providers? Addressing these barriers will make it easier to promote use of services for STI/RTI prevention and care.

1.2. Raising awareness and promoting services

Even when accessibility and acceptability barriers to clinic attendance have been removed, some people may not use the facilities because they are not aware that anything is wrong. Prevention efforts, as well as promotion of clinic services for STI/RTI detection and treatment, must therefore be directed to people in the community. Health care workers should promote early use of services for people with symptoms or concerns about STIs/RTIs. This includes:

- raising awareness of STIs/RTIs and their complications;
- educating people about STI/RTI symptoms and the importance of early use of health care services;
- promoting screening services such as syphilis testing early in pregnancy;
- promoting services and reaching out to young people or other vulnerable groups who may not feel comfortable using clinic services.

Messages to promote use of services for prevention and treatment of STIs/RTIs

People in the community should be aware of STIs/RTIs and know how to prevent and treat them.

1. Prevention is better than cure

The most effective strategy is to prevent infection in the first place by reducing exposure (delaying initiation of sex, reducing number of partners and/or using condoms consistently).

2. Early treatment is better than late treatment

When STIs/RTIs do occur, early identification and treatment can eliminate infection before it causes complications or spreads to other people.

3. Better late than never

Diagnosis and treatment of complications are possible even if the first two levels of prevention fail. However, interventions at this level are often less effective and more expensive than those applied earlier.

1.3. Reaching groups that do not typically use reproductive health services

Prevention and management of STIs/RTIs require special attention to factors that can influence risk and vulnerability, such as age, sex, culture and occupation. This is as true for control of STIs in the community as it is for management of individual

patients. If key sectors of the population, such as men or adolescents, are ignored, community control of STIs will be very difficult to achieve. Other groups, such as sex workers and their clients, and migrant and mobile workers, may be at high risk of STI yet may not know about health services or feel comfortable using them. Outreach to these groups strengthens STI control.

1.3.1. Involving men

Men tend to have more sexual partners than women and thus more opportunity to acquire and spread STI. Men are also more likely to have symptoms when they have an STI and may seek treatment at clinics, from private doctors or directly from pharmacies or drug vendors. Access for men to quality services for prevention and treatment is thus an important component of STI control. Reproductive health clinics should, as a minimum, offer treatment to the sexual partners of women who use their services. Some reproductive health services that traditionally served women only are now increasingly reaching out to men with a variety of preventive and curative services—including involving male partners in decision-making about dual protection (against both infection and pregnancy). Some reproductive health clinics provide special times or places for men to attend for advice and care. In addition to broadening services to include men, reproductive health clinics should support improvement of services where men go for care (private doctors, pharmacies), and create mechanisms for easy referral, partner treatment and other needs. Creating or supporting special services for men where they work (occupational health clinics) or meet (outreach to bars and entertainment districts) also helps ensure that they get appropriate STI care. Condoms should be made easily available where men socialize. Clinics should work with local pharmacies, drug vendors and traditional care providers to ensure that they are aware of STI guidelines and the importance of partner management.

Self-treatment

Many people find ways to treat themselves for an STI without going to a doctor or clinic. Self treatment is especially common among men and young people, who may buy antibiotics directly from a pharmacy without a prescription. Sex workers and their clients also often take antibiotics or other treatments in the belief that these will prevent infection. Self-treatment should be discouraged for several reasons. First, ineffective drugs are often sold by people with minimal training (such as pharmacy sales assistants). Secondly, drugs may be sold in insufficient dosages to make treatment more affordable. As a result, the infection is not cured (although symptoms may disappear for a while) and the germs become more resistant to common antibiotics.

Health care providers should try to understand why people treat themselves. It may be because local clinics are not acceptable for various reasons, such as cost, waiting time, or perceived lack of privacy. Improving and promoting clinic services can restore confidence and reduce the amount of self-treatment.

1.3.2. Reaching men

Men may be more receptive to STI prevention messages if they understand that STIs threaten their health and fertility, and may endanger the lives of their wives, girlfriends and children. Two objectives for reproductive health programmes or workplace interventions for men are:

- To encourage men with an STI to bring or refer their partners for treatment. Since STIs are more often symptomatic in men than in women, partner management is an important way to identify asymptomatic women who need treatment.
- To reach men with information about prevention, especially about use of condoms in commercial and casual sex encounters. This reduces the chance they will take an STI home.

1.3.3. Young people

Generally, **young people** have higher rates of STI than older adults. There are many social, behavioural and biological reasons for this. For instance:

- Young people tend to have more partners and shorter relationships, so there is more opportunity for STIs to spread.
- They may find it difficult or embarrassing to obtain or use condoms.
- They may find it difficult to refuse sex in some situations (within the family, in exchange for goods such as school supplies, food or clothes).
- They may not recognize situations and sexual partners where risk of infection is high.
- They may lack knowledge about the symptoms of STIs and when to seek care.
- They may feel uncomfortable using family planning or other reproductive health services for fear of critical and judgemental responses from staff.
- They may not be aware of places to go for private and confidential services.
- They may be unable to afford health services.

In some societies, adolescent girls are expected to marry early and have little or no sexual experience prior to marriage. They may still be at risk of infection, however, because their husband may have had previous partners or may have more than one partner. Young girls with an older sexual partner are at much greater risk of acquiring some infections (especially incurable infections such as HIV, HSV-2 and HPV), and are more likely to be in a relationship where the sexual activity is not wholly consensual. Biologically, for many adolescent girls—especially those near puberty—the tissue covering the cervix is more vulnerable to infection than that of older women.

1.3.4. Reaching young people

Reproductive health clinics have a role to play in providing quality preventive and curative services for young people, and should attempt to make their services acceptable and accessible to them. “Youth-friendly services” are private, respectful and confidential services based on young people’s needs and concerns, provided by technically competent staff, in physically acceptable and accessible places. These services need to be acceptable to the local communities and young people should be involved in their planning and monitoring.

Young people need practical information and support in relation to issues that affect their lives (including sexual activity), as well as access to services and supplies. Education that focuses only on abstinence and fidelity leaves women and girls uninformed about other ways to reduce risk of infection and unable to negotiate safer sexual activities that minimize this risk. Making services acceptable and accessible to adolescents provides prevention and care for a group in which risk-taking is high, and has great potential to avert infections and preserve a pleasurable healthy sexual life. Barriers faced by young people in accessing services such as condoms and contraception are often due to attitudes of parents, providers and the community, including denial and discomfort about youth sexuality. These barriers need to be broken down. Outreach and peer education can help reach young people in different situations who may not have knowledge of, or easy access to, services.

In some countries the legal age of consent for medical services is different from the age of consent for sex. Health care workers need to clarify the legal status in relation to managing adolescents who are under the age of consent for medical treatment. Ideally, treatment or services should be permitted if the young person’s well-being is threatened. In a small number of countries, providing any care to adolescents or unmarried females is illegal. Community groups should advocate for changing such policies.

2)- Sex workers and others with many sexual partners

Some people are more likely to acquire an STI because they change sexual partners frequently. The greater the number of sexual partners a person has, the greater the chances of becoming infected with an STI, and the greater the chance of passing it on to someone else. Interventions that successfully reach such people at high STI risk can have the greatest impact on community STI transmission (see Box 5.5). Thus, reaching these groups with high-quality preventive and curative services is essential for community control of STI. Effective outreach, peer education and clinical services for sex workers have been developed using mobile clinics or by reserving special times at regular clinics.

Services should be convenient, private and confidential. Outreach should be organized to reach sex workers who do not have easy access to services. Peer education is key to supporting sex workers in demanding safer conditions.

STI/RTI services for sex workers should include:

- condom (and lubricant) supply and promotion of consistent and correct use;
- STI screening or presumptive STI treatment;
- STI treatment for those with symptoms or exposure;
- dual protection for prevention of unplanned pregnancy as well as STIs/RTIs.

NB: *Please see the management of STI/RTI cases among sex workers in the Module 3.*

3)- STI/RTI MANAGEMENT IN PREGNANT WOMEN AND NEWBORNS

STI/RTI prevention and management are as important during pregnancy as at any other time. A woman's sexual activity may increase or decrease and exposure to infection may change. A number of STIs—including syphilis, gonorrhoea, chlamydia, trichomoniasis, genital herpes and HIV—can cause complications during pregnancy and contribute to **poor pregnancy outcomes**.

Among endogenous infections, bacterial vaginosis is associated with preterm labour. Yeast infection is more common during pregnancy and, although it is not associated with any adverse pregnancy outcomes, the symptoms may be unpleasant and women should receive appropriate treatment. **Upper genital tract infection** may be a complication of spontaneous or induced abortion, or preterm rupture of membranes, or may occur following delivery—and may be life-threatening. Some of the most important STI/RTI-related problems in pregnancy—including postabortion and postpartum infections, and congenital syphilis.

Simple improvements in service delivery using available technology—such as same-day, on-site syphilis screening in antenatal clinics—can lead to dramatic improvements in pregnancy outcome. Treatment of symptomatic bacterial vaginosis can reduce the risk of preterm labour, and prevention and effective management of postpartum and postabortion infections can reduce maternal morbidity and mortality.

Women of reproductive age should be educated about the importance of early antenatal care and STI/RTI screening. Couples should be counselled during pregnancy on symptoms of preterm labour, safer sex practices and avoidance of other partners during the pregnancy.

Antenatal clinic visits provide opportunities for preventing and detecting STIs/RTIs, and women should be encouraged to attend early in pregnancy.

3.1. Initial assessment visit during pregnancy

A woman may first come to the antenatal clinic any time between the first trimester and the onset of labour. She may or may not return to the clinic before delivery. It is therefore important to make the most of the first visit, and some consideration of STIs/RTIs should be included in the assessment. The following is recommended as a minimal STI/RTI assessment at the initial antenatal visit:

- Ask the woman about symptoms of STI/RTI and whether her partner has urethral discharge or other symptoms. If the woman or her partner has symptoms, they should be managed.
- Serological syphilis testing using RPR or equivalent non-treponemal syphilis antibody test should be carried out as early as possible in pregnancy. Testing should be done on-site where possible, and the woman should receive her results and treatment before leaving the clinic. Treatment of her partner should also be encouraged, and active assistance given if requested.

- Pregnant women with a history of spontaneous abortion or preterm delivery should be screened for bacterial vaginosis and trichomoniasis. Those who test positive should be treated (after the first trimester of pregnancy) with metronidazole, 500 mg three times a day for seven days, to reduce risk of adverse pregnancy outcome.
- Counselling and testing for HIV should be available on-site or through referral. Women who test positive should be referred to appropriate support services and advised on how to reduce the risk of mother-to-child transmission (MTCT).
- Prevention of STIs (including HIV) should be discussed with the woman and her partner in the context of ensuring a healthy pregnancy and protecting future fertility.
- Plans for delivery and the postpartum period should be discussed early in pregnancy. Infection with a viral STI such as HIV or HSV-2 may influence the birth plan. STI/RTI prevention needs should be discussed when considering options for postpartum family planning.

3.2. Follow-up antenatal visit

When women return for follow-up antenatal visits, attention should be paid to STI/RTI prevention and detection since risk of infection may persist. As at the first visit, women should be asked about symptoms in themselves or their partners. Any symptomatic STIs/RTIs should be managed.

- Syphilis testing should be repeated in late pregnancy, if possible, to identify women infected during pregnancy. All women should be tested at least once during each pregnancy, and all women with reactive serology should receive treatment.
- For women who are HIV positive, management during the antenatal period will depend on the specific protocol followed. Health care providers should review the birth plan and discuss options for infant feeding and postpartum contraception.
- Prevention of STIs/RTIs should be stressed. The woman and her partner should understand that, regardless of previous treatment, an STI acquired in late pregnancy is capable of causing pregnancy complications and congenital infection. Condoms should be offered. Where partner treatment is indicated, it may be more readily accepted if offered as a precaution to ensure a safe delivery and healthy newborn.

3.3. Labour and delivery

STI/RTI concerns during labour and delivery are few but potentially important. The objectives are to identify infection that may not have been detected during the antenatal period, and to intervene where possible to prevent and manage STIs/RTIs in the newborn. Look for signs of infection. Most STIs/RTIs are not emergencies and treatment can be delayed until after delivery.

- **genital herpes** (primary HSV-2 infection) near delivery may be an indication for caesarean section since vaginal delivery carries a risk for the newborn of disseminated herpes, and a high risk of neonatal death. Where caesarean section is not possible or would be unsafe, transport to a referral hospital should be considered if delivery is not imminent. Caesarean delivery is not beneficial if more than six hours have passed since rupture of the membranes.
- **Genital warts**, even when extensive, are not an indication for caesarean delivery.
- **Manage HIV-infected women** (including administration of antiretroviral treatment) according to National protocols.

3.4. Prevention and management of STIs/RTIs in the newborn

1.1.1. Neonatal eye prophylaxis

All newborn babies, regardless of maternal signs or symptoms of infection, should receive **prophylaxis against ophthalmia neonatorum** due to gonorrhoea or chlamydial infection. The eye ointments and drops that may be used are listed below.

Prevention of ophthalmia neonatorum

Instill one drop of the following in each eye within one hour of birth:

- **tetracycline** ophthalmic ointment (1%) in a single application

OR

- provide **iodine** drops 2.5% in a single application

OR

- **silver nitrate** (1%) freshly prepared aqueous solution in a single application



1.1.2. Congenital syphilis

Syphilis test results should be reviewed at this time, and the newborn evaluated for signs of congenital syphilis. Women who have not previously been tested for syphilis should be tested. Results should be obtained as soon as possible so that early treatment can be given to newborns of mothers who test positive. Newborn babies should be managed, regardless of whether the mother received treatment for syphilis during pregnancy. The mother and her partner should also be treated if this has not already been done.

3.5. Postpartum care

It is as important to be aware of signs of infection following delivery as during pregnancy. Postpartum uterine infection is a common and potentially life-threatening condition, and early detection and effective treatment are important measures to prevent complications. All women are vulnerable to infection following delivery, and retained blood and placental tissue increase the risk. Other risk factors for infection include prolonged labour, prolonged rupture of membranes and manipulation during labour and delivery. Management of postpartum infection.

- Improving services for prevention and treatment of STI/RTI. Women should be examined within 12 hours following delivery. When they are discharged from the health care facility, women should be advised to return to the clinic if they notice symptoms, such as fever, lower abdominal pain, foul-smelling discharge or abnormal bleeding. They should be given information on care of the perineum and breasts, and instructed on the safe disposal of lochia and blood-stained pads or other potentially infectious materials. Health care providers should be alert to signs of infection including fever, lower abdominal pain or tenderness and foulsmelling discharge.
- HIV-positive women may need continued care and support, including access to treatment and support in carrying out a substitute feeding plan.
- If contraception was not discussed before delivery, it should be brought up early in the postpartum period. Planning for a suitable method should include consideration of need for STI/RTI protection. Dual protection should also be discussed with women who choose a long-term contraceptive method, such as a condom, an IUD, following delivery.

4)- MANAGEMENT OF ASYMPTOMATIC STIs/RTIs

Many women and men with an STI/RTI do not have symptoms, however, or have minimal symptoms and do not realize that anything is wrong. They may visit a clinic for other reasons or not at all.

In women, silent asymptomatic infections can be more serious than symptomatic ones. Syphilis, gonorrhoea and chlamydia have serious consequences, yet are often asymptomatic.

Reproductive health services have an important role to play in detecting asymptomatic STI/RTI. Since many women attend reproductive health clinics for family planning, antenatal services and postpartum care, there is an opportunity to identify women with an STI/RTI who would benefit from treatment.

Reproductive health services should reach out to men whenever possible. While men are more likely to have symptoms than women, asymptomatic STI is possible. More commonly, men may ignore symptoms if they are not severe. Health care providers can raise awareness about symptoms and encourage men to come for check-ups if they have symptoms.

Some reproductive health settings have the resources to screen for asymptomatic infections. One example is the “well woman clinic”, which may include speculum and bimanual examination to look for signs of cervical infection or PID, a Pap smear for early diagnosis of cervical cancer, or screening tests for syphilis or gonorrhoea.

4.1. STI/RTI screening for women

Screening means laboratory testing for STI/RTI in person at risk, in the absence of symptoms, signs known STI/RTI exposure or other clinical evidence of infection. In addition, screening test does not always diagnose the illness; this is usually done on further investigation.

4.1.1. Syphilis

Syphilis remains a leading cause of perinatal mortality and morbidity in many parts of the world despite widely available and affordable technology for diagnosing and treating infection in pregnant women. Among pregnant women in the early stages of syphilis who are not treated, an estimated two-thirds of pregnancies end in abortion, stillbirth, or neonatal infection.

4.1.1.1. Indications and opportunities for screening

Screening for syphilis should be done at the **first antenatal visit, as early as possible** in pregnancy. It can be repeated in the third trimester if resources permit, to detect infection acquired during the pregnancy. Women who do not attend antenatal clinic should be tested at delivery. Although this will not prevent congenital syphilis, it permits early diagnosis and treatment of newborns.

Women who have had a spontaneous abortion (miscarriage) or stillbirth should also be screened for syphilis; in many areas, identification and treatment of syphilis remove a major cause of adverse pregnancy outcome. Men and women with STI syndromes other than genital ulcer should be screened for syphilis. Screening is unnecessary for patients with ulcers who should be treated syndromically for both syphilis and chancroid without testing. Where as, sex workers should be screened at the first visit and then every 6 months. Because of the serious complications of syphilis in pregnancy, the first priority should be to ensure universal antenatal screening.

4.1.1.2. Available screening tools

- Non-treponemal tests, such as rapid plasma reagin (RPR) or venereal disease research laboratory (VDRL) tests, are the preferred tests for syphilis screening. RPR can be performed without a microscope. These tests detect almost all cases of early syphilis but false positives are possible.
- Treponemal tests (e.g. *Treponema pallidum* haemagglutination assay—TPHA), if available, can be used to confirm non-treponemal test results.
- Quantitative (RPR) titres can help evaluate the response to treatment

Note: *where additional tests are not available, all patients with reactive RPR or VDRL should be treated.*

4.1.1.3. Recommendations

Syphilis testing should be done on-site where possible to maximize the number of patients who receive their results and are treated. Ideally:

- Patients should receive their test results before leaving the clinic.
- Patients with reactive (positive) results should be treated immediately patients must be asked for a history of allergy to penicillin.
- Sex partners should also be treated.

4.1.2. **Vaginal infections**

Vaginal infections (**yeast infection, bacterial vaginosis and trichomoniasis**) are very common in women of reproductive age, are almost always symptomatic and rarely cause complications. In non-pregnant women, there is no need to look for asymptomatic cases. Asymptomatic women should not be treated for yeast or bacterial vaginosis on the basis of microscopy findings alone.

In pregnant women, however, bacterial vaginosis (BV) and trichomoniasis may cause complications such as prelabour rupture of membranes and preterm delivery. Women at risk for these conditions should be screened regardless of symptoms.

4.1.2.1. Indications for screening

Pregnant women with a history of spontaneous abortion or preterm delivery should be screened.

4.1.2.2. Available screening tools

It can be detected by Gram stain microscopy of a vaginal smear or simple methods. Motile *Trichomonas* protozoa (trichomonads) can be seen on microscopic examination of a fresh wet mount of vaginal fluid in a drop of normal saline.

4.1.2.3. Recommended approach

Pregnant women with a history of spontaneous abortion or preterm delivery should be screened for BV and trichomoniasis. Those who test positive should be treated (after the first trimester of pregnancy) with metronidazole, 500 mg three times a day for seven days, to reduce risk of adverse pregnancy outcome.

Women with symptomatic vaginal discharge in the second or third trimester should be treated (without screening) as above for BV, trichomoniasis, and yeast infection.

Non-pregnant women with abnormal vaginal discharge should be managed according to Flowchart of vaginal discharge

4.1.3. Cervical infections

Cervical infections are much less common than vaginal infections, especially among women who use reproductive health services, and are usually asymptomatic. The cervix is the most common site of infection for **gonorrhoea** and **chlamydia**. Even if a woman is asymptomatic, it may be possible to detect signs of infection on careful speculum examination. Speculum examination may also reveal signs of other infections, including cervical ulcers and warts.

4.1.3.1. Indications and opportunities for screening

Screening may be done:

- Any time a speculum examination is performed for other reasons; during pregnancy.
- People with frequent exposure to STI, such as sex workers, should be screened regularly.

4.1.3.2. Available screening tools

- Careful speculum examination may detect many sign of cervical infections such as mucopurulent discharge, friability (easy

bleeding), yellow discoloration of swab insert endocervical (positive swab test) .

- Endocervical Gram-stain smear (available in Cambodia)
- Depending on laboratory resources, endocervical swab specimens can also be:
 - Culture for gonorrhoea.
 - Tests for chlamydial infection are expensive.
 - Polymerase chain reaction (PCR) is very accurate but very expensive.

4.1.3.3. Recommended approach

A careful speculum examination should be done to look for signs of cervical infection. Some asymptomatic internal ulcers and genital warts may also be detected on speculum examination. A swab should be collected from the cervical canal (endocervix). If the swab appears yellow (positive swab test), cervical infection is likely and the woman should receive treatment for gonorrhoea and chlamydia.

4.1.4. Pelvic inflammatory disease

Upper genital tract infection or PID leads to serious and life-threatening complications including infertility and ectopic pregnancy, yet can often develop silently with few symptoms or none at all. Women with lower abdominal tenderness on examination should be managed for PID.

4.1.4.1. Indications for screening

Screening should be performed:

- Any time a speculum or bimanual pelvic examination is performed, or when women have vague complaints of lower abdominal discomfort, back pain, spotting between periods, or pain during sexual intercourse; prior to transcervical procedures.

4.1.4.2. Available screening tools

Careful abdominal and bimanual pelvic examination are the only tools for detecting silent PID.

4.1.4.3. Implementing screening

Signs of upper genital tract infection include lower abdominal, cervical motion, uterine or adnexal tenderness. Women with these signs should be managed without delay using the lower abdominal pain flowchart

4.1.5. Cervical cancer screening

Cervical cancer is a recognized complication of STI, related to infection with a few specific strains of human papilloma virus. Screening and treatment of early

stages (cervical dysplasia) is effective in reducing morbidity and mortality from cervical cancer.

4.1.5.1. Indications for screening

Indications for screening depend on resources. Where cytology services are well established, all women over 35 years old should be screened every five to ten years. Where cytology services are limited, the objective should be to screen all women once around the age of 40.

4.1.5.2. Available screening tool

Cytology by Pap smear (Papanicolaou smear) is currently recommended.

4.1.5.3. Implementing screening

Cervical cancer screening requires staff who can perform speculum examination and are trained in smear collection techniques, as well as availability of cytology services for reading smears. Women with a positive smear should be referred for further diagnosis and treatment.

4.1.6. HIV testing

All women should be encourage to do vonluntary HIV testing, especially whom in reproductive age.

4.2. *STI/RTI screening for men*

Clinicians should routinely asked sexually active men and MSM about symptoms consistent with common STDs, including urethral discharge, dysuria, genital and perianal ulcers, regional lymphadenopathy, skin rash, and anorectal symptoms consistent with proctitis. Routine laboratory screening for common STDs is indicated for all sexually active men and MSM. The following screening recommendations are shown below:

4.2.1. Urethral Gram-stain smear is recommended:

- If the patient has symptoms of urethritis or,
- If urethral discharge can be expressed or is spontaneously present or,
- If patient is a contact of women with cervicitis, PID.

4.2.2. Syphilis screening:

- If the patient has high risk behavior,

4.2.3. Additional, STI/RTI screening tests-MSM should be done:

- 4.2.3.1. Rectal Gram-stain (if practices receptive anal intercourse)
 - If rectal discharge is present or,
 - If rectal asymptomatic
- 4.2.3.2. Rectal culture for *N.gonorrhoeae* and *C. trachomatis* (if has practiced receptive rectal intercourse last year)
- 4.2.3.3. HIV screening test (voluntary HIV testing and counseling).

5)- SEXUAL VIOLENCE AND STIs/RTIs

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”.

Sexual violence is common. Both males and females are vulnerable in childhood, but women are much more at risk in adolescence and adulthood.

Sexual violence—some statistics

- Studies from different parts of the world have found that 7–36% of girls and 3–29% of boys suffer from sexual abuse in childhood, with a majority of studies reporting 1.5–3 times more sexual violence against girls than boys.
- The percentage of adolescents who have been coerced into sex can range from approximately 7% to 46% of females and 3% to 20% of males, depending on the country.
- Population-based studies report that between 6% and 46% of women have experienced attempted or completed forced sex by an intimate partner or ex-partner at some time in their life.
- Rape and domestic violence account for an estimated 5–16% of healthy years of life lost in women of reproductive age.
- STI has been found in up to 43% of people who have been raped, with most studies reporting rates between 5% and 15% depending on the disease and type of test used.

It is important that health care providers have a **high index of suspicion and awareness** about sexual violence. Many individuals are reluctant to talk directly about abuse by their intimate partner. They may be ashamed to discuss it, or they may be afraid of future violence if the situation is exposed. Often, because they feel uncomfortable talking about sexual violence, individuals may come to the clinic with other non-specific complaints or requesting a check-up—assuming that the health care provider will notice anything abnormal that needs treatment.

5.1. **Medical and other care for survivors of sexual assault**

All health facilities should have up-to-date policies and procedures for managing persons who have survived or experienced sexual violence that are in line with local law. Whether comprehensive services are provided on-site or through referral, providers need to be clear about the protocol to be followed and how to manage crisis situations. They should have the necessary supplies, materials and referral contact information in order to deal confidentially, sensitively and effectively with people who have experienced sexual violence.

The following services should be available, on-site or through referral, for patients who have experienced sexual violence:

- essential medical care for any injuries and health problems;
- collection of forensic evidence;
- evaluation for STI and preventive care;
- evaluation of pregnancy risk and prevention, if necessary;
- psychosocial support (both at time of crisis and long-term);
- follow-up services for all of the above.

Survivors of sexual assault have experienced a traumatic event and should be rapidly evaluated to determine whether they need emergency medical, psychological or social intervention. It is important to remember that the trauma of the event may make parts of the examination difficult. Explain carefully the steps that will be taken and obtain written informed consent from the patient before proceeding with examination, treatment, notification or referral.

A qualified provider who has been trained in the required procedures should perform the examination and documentation of evidence. The examination should be deferred until a qualified professional is available, but not for longer than 72 hours after the incident. It is the patient's right to decide whether to be examined. Treatment can be started without examination if that is the patient's choice. For minors under the age of consent, local guidelines may dictate how to manage the person—usually parental consent is required. **If at all possible, do not deny adolescents immediate access to medical services.** Where facilities or referral for a more complete examination are not available, the following **minimal** information should be collected: date and time of assault; date and time of examination; patient's statement; and results of clinical observations and any examinations conducted. Such information should be collected or released to the authorities only with the survivor's consent. Be aware of legal obligations that will follow if the assault is reported and goes to legal proceedings. Ideally, a trained health care provider of the same sex should accompany the survivor during the history-taking and examination. A careful written record should be made of all findings during the medical examination. Pictures to illustrate findings may help later in recalling details of the examination.

5.1.1. Medical management

In the assault, and initial counselling. Emergency contraception and STI prophylaxis should be offered early to survivors of sexual violence. For many women, the trauma of the event may be aggravated and prolonged by fear of pregnancy or infection, and knowing that the risks can be reduced may give immense relief.

5.1.1.1. Emergency contraception

Emergency contraceptive pills can be used up to 5 days after unprotected intercourse. However, the sooner they are taken, the more effective they are. Several regimens exist—using levonorgestrel or combined oral contraceptive pills. A second option for emergency contraception is insertion of a copper-bearing IUD within 5 days of the rape. This will prevent more than 99% of pregnancies. The IUD may be removed during the woman's next menstrual period or left in place for continued contraception. If an IUD is inserted, make sure to **give full STI treatment** as recommended in Treatment below. If more than 5 days have passed, counsel the woman on availability of abortion services (in most countries, post-rape abortion is legal). A woman who has been raped should first be offered a pregnancy test to rule out the possibility of preexisting pregnancy.

5.1.1.2. Post-exposure prophylaxis of STI

Another concrete benefit of early medical intervention following rape is the possibility of treating the person for a number of STIs. STI prophylaxis can be started on the same day as emergency contraception, although the doses should be spread out (and taken with food) to reduce side-effects such as nausea. The incubation periods of different STIs vary from a few days for gonorrhoea and chancroid to weeks or months for syphilis and HIV. Treatment may thus relieve a source of stress, but the decision about whether to provide prophylactic treatment or wait for results of STI tests should be made by the woman. Treatment table 13 lists options that are effective whether taken soon after exposure or after the appearance of symptoms.

5.1.1.3. Post-exposure prophylaxis of HIV

The possibility of HIV infection should be thoroughly discussed as it is one of the most feared consequences of rape. At present, there is no conclusive evidence on the effectiveness of postexposure prophylaxis (PEP) in preventing infection following sexual exposure to HIV, and PEP is not widely available. If PEP services are available, rape survivors who wish to be counselled on the risks and benefits should be referred within 72 hours. The provider should assess the person's knowledge and understanding of HIV transmission and adapt the counselling appropriately. Counselling should take into account the local prevalence of HIV and other factors (trauma, other STI exposure) that could influence transmission. If the person decides to take PEP, two or three antiretroviral drugs are usually given for 28 days. See the National Guideline on Post-Exposure Prophylaxis of HIV infection.

5.1.1.4. Prophylactic immunization against hepatitis B

Hepatitis B virus (HBV) is easily transmitted through both sexual and blood contact. Several effective vaccines exist although they are expensive and require refrigeration. If HBV vaccine is available, it should be offered to survivors of rape within 14 days if possible. Three intramuscular injections are usually given, at 0, 1 and 6 months (see instructions on vaccine package as schedules vary by vaccine type). HBV vaccine can be given to pregnant women and to people with chronic or previous HBV infection. Where infant immunization programmes exist, it is not necessary to give additional doses of HBV vaccine to children who have records of previous vaccination. Hepatitis immune globulin is not needed if vaccine is given.

5.1.1.5. Tetanus toxoid

Prevention of tetanus includes careful cleaning of all wounds. Survivors should be vaccinated against tetanus if they have any tears, cuts or abrasions. If previously vaccinated, only a booster is needed. If the person has never been vaccinated, arrangements should be made for a second vaccination one month later and a third 6 months to one year later. If wounds are dirty or over 6 hours old, and the survivor has never been vaccinated, tetanus immune globulin should also be given.

5.1.2. **Referral to special services**

Following the initial provision of care, referrals may be needed for additional services such as psychosocial support. An evaluation of the person's personal safety should be made by a protective services agency or shelter, if available, and arrangements made for protection if needed. Referral for forensic examination should be made if this is desired but could not be adequately performed at the clinic visit. It is essential to arrange follow-up appointments and services during the first visit. The woman should be clearly told whom to contact if she has other questions or subsequent physical or emotional problems related to the incident. Adolescents in particular may need crisis support as they may not be able or willing to disclose the assault to parents or careers.

5.1.3. **Medical management Postexposure prophylaxis of STI**

5.1.3.1. STI presumptive treatment options for adults

A- Syphilis:

- **Benzathine penicillin** 2.4 million units by single intramuscular injection **OR**

- **Doxycycline** 100 mg orally twice a day for 14 days (in case of penicillin allergy only)

B- Gonorrhoea/Chancroid:

- **Cefixime** 400 mg orally as a single dose, **OR**
- **Ceftriaxone** 250 mg by intramuscular injection **OR**
- **Spectinomycin** 2 g by intramuscular injection as a single dose

C- Chlamydia/ lymphogranuloma venereum:

- **Azithromycin** 1 g orally as single dose **OR**
- **Doxycycline** 100 mg orally twice a day for 7 days, **OR**
- **Tetracycline** 500mg orally 4 times a day for 7 days **OR**
- **Erythromycin** 500mg orally 4 times a day for 7 days

D-Trichomoniasis:

- **Metronidazole** 2 g orally as a single dose **OR**
- **Tinidazole** 2 g orally as a single dose

5.1.3.2. STI presumptive treatment options for children

A- Syphilis:

- **Benzathine penicillin** 50 000 units/kg of body weight by single intramuscular injection, **OR**
- **Erythromycin** 12.5 mg/kg of body weight orally 4 times a day for 14 days

B- Gonorrhoea/Chancroid:

- **Ceftriaxone** 125 mg by intramuscular injection, as single dose, **OR**
- **Spectinomycin** 40 mg/kg of body weight (maximum 2 g) by intramuscular injection (>45 kg, use adult protocol)

C- Chlamydia/ lymphogranuloma venereum:

- **Erythromycin** 12.5 mg/kg of body weight orally 4 times a day for 7 days (12 years or older, use adult protocol)

D- Trichomoniasis:

- **Metronidazole** 5 mg/kg of body weight orally 3 times a day for 7 days (12 years or older, use adult protocol)

6)- STI/RTI CARE AND TREATMENT FOR PEOPLE LIVING WITH HIV/AIDS (PLHA)

Infection with HIV produces a spectrum of disease that progresses from a clinically latent or asymptomatic state to AIDS as a late manifestation. The pace of disease progression varies. In untreated patients, the time between infection with HIV and the development of AIDS ranges from a few months to as long as 17 years (median: 10 years). The majority of adults and adolescents infected with HIV remain symptom-free for extended periods, but viral replication is active during all stages of infection and increases substantially as the immune system deteriorates. In the absence of treatment, AIDS will develop eventually in nearly all HIV-infected persons.

Because of its effect on the immune system, HIV affects the diagnosis, evaluation, treatment, and follow-up of multiple other diseases and might affect the efficacy of antimicrobial therapy for some STDs.

6.1. **Detection of HIV Infection**

All persons who seek evaluation and treatment for STDs should be screened for HIV infection. Screening should be routine, regardless of whether the patient is known or suspected to have specific behavioral risks for HIV infection. Because many STDs are asymptomatic, routine screening for curable STDs (e.g., syphilis, gonorrhea, and chlamydia) should be performed at least yearly for sexually active persons.

In non-emergent situations, the initial evaluation of HIV-positive patients usually includes the following:

- A detailed medical history, including sexual and substance abuse history; vaccination history; previous STDs; and specific HIV-related symptoms or diagnoses;
- a physical examination, including a gynecologic examination for women;
- testing for *N. gonorrhoeae* and *C. trachomatis* (and for women, a Pap test and wet mount examination of vaginal secretions);
- Syphilis serology

6.2. **Gonococcal and non-gonococcal infections**

Gonococcal urethritis, chlamydial urethritis, and non-gonococcal, nonchlamydial urethritis might facilitate HIV transmission. Patients who have gonococcal infection and NGU and also are infected with HIV should receive the same treatment regimen as those who are HIV negative.

Patients who have cervicitis and also are infected with HIV should receive the same treatment regimen as those who are HIV negative. Treatment of cervicitis in HIV-infected women is vital because cervicitis increases cervical HIV shedding. Treatment of cervicitis in HIV-infected women reduces HIV shedding from the cervix and might reduce HIV transmission to susceptible sex partners.

6.3. Trichomoniasis, Candidiasis and Bacterial Vaginosis

Patients who have trichomoniasis and also are infected with HIV should receive the same treatment regimen as those who are HIV negative. The incidence, persistence, and recurrence of trichomoniasis in HIV-infected women are not correlated with immune status.

Patients who have BV and also are infected with HIV should receive the same treatment regimen as those who are HIV negative. BV appears to be more persistent in HIV-positive women.

The incidence of VVC in HIV-infected women is unknown. Vaginal Candida colonization rates among HIV-infected women are higher than among those for seronegative women with similar demographic characteristics and high-risk behaviors, and the colonization rates correlate with increasing severity of immunosuppression. Symptomatic VVC is more frequent in sero-positive women and similarly correlates with severity of immunodeficiency. In addition, among HIV-infected women, systemic azole exposure is associated with the isolation of non-albicans Candida species from the vagina. Based on available data, therapy for VVC in HIV-infected women should not differ from that for sero-negative women. Although long-term prophylactic therapy with fluconazole at a dose of 200 mg weekly has been effective in reducing *C. albicans* colonization and symptomatic VVC, this regimen is not recommended for routine primary prophylaxis in HIV-infected women in the absence of recurrent VVC.

6.4. Pelvic Inflammatory Disease (PID)

Differences in the clinical manifestations of PID between HIV-infected women and HIV-negative women have not been well-delineated. In previous observational studies, HIV-infected women with PID were more likely to require surgical intervention. More comprehensive observational and controlled studies (published since the 2002 STD Treatment Guidelines, US-CDC) have demonstrated that HIV-infected women with PID had similar symptoms when compared with uninfected controls. They were more likely to have a tubo-ovarian abscess but responded equally well to standard parenteral and oral antibiotic regimens when compared with HIV-negative women. The microbiologic findings for HIV-positive and HIV-negative women were similar, except HIV-infected women had higher rates of concomitant *M. hominis*, candida, streptococcal, and HPV infections and HPV-related cytologic abnormalities. Whether the management of immunodeficient HIV-infected women with PID requires more aggressive interventions (e.g., hospitalization or parenteral antimicrobial regimens) has not been determined.

6.5. Syphilis

Unusual serologic responses have been observed among HIV-infected persons who have syphilis. The majority of reports have involved serologic titers that were higher than expected, but false-negative serologic test results and delayed appearance of

sero-reactivity also have been reported. However, unusual serologic responses are uncommon, and the majority of specialists believe that both treponemal and nontreponemal serologic tests for syphilis can be interpreted in the usual manner for the majority of patients who are coinfecting with *T. pallidum* and HIV.

Compared with HIV-negative patients, HIV-positive patients who have early syphilis might be at increased risk for neurologic complications and might have higher rates of treatment failure with currently recommended regimens. The magnitude of these risks is not defined precisely but is likely minimal. No treatment regimens for syphilis have been demonstrated to be more effective in preventing neurosyphilis in HIV-infected patients than the syphilis regimens recommended for HIV-negative patients. Careful follow-up after therapy is essential.

6.5.1. Primary and Secondary Syphilis

Treatment with benzathine penicillin G, 2.4 million units IM in a single dose is recommended. Some specialists recommend additional treatments (e.g., benzathine penicillin G administered at 1-week intervals for 3 weeks, as recommended for late syphilis) in addition to benzathine penicillin G 2.4 million units IM.

Because CSF abnormalities (e.g., mononuclear pleocytosis and elevated protein levels) are common in patients with early syphilis and in persons with HIV infection, the clinical and prognostic significance of such CSF abnormalities in HIV-infected persons with primary or secondary syphilis is unknown. Although the majority of HIV-infected persons respond appropriately to standard benzathine penicillin therapy, some specialists recommend intensified therapy when CNS syphilis is suspected in these persons. Therefore, some specialists recommend CSF examination before treatment of HIV-infected persons with early syphilis, with follow-up CSF examination conducted after treatment in persons with initial abnormalities.

HIV-infected persons should be evaluated clinically and serologically for treatment failure at 3, 6, 9, 12, and 24 months after therapy. Although of unproven benefit, some specialists recommend a CSF examination 6 months after therapy. HIV-infected persons who meet the criteria for treatment failure (i.e., signs or symptoms that persist or recur or persons who have fourfold increase in nontreponemal test titer) should be managed in the same manner as HIV-negative patients (i.e., a CSF examination and re-treatment). CSF examination and re-treatment also should be strongly considered for persons whose nontreponemal test titers do not decrease fourfold within 6–12 months of therapy. The majority of specialists would retreat patients with benzathine penicillin G administered as 3 doses of 2.4 million units IM each at weekly intervals, if CSF examinations are normal.

Penicillin-allergic patients who have primary or secondary syphilis and HIV infection should be managed according to the recommendations for

penicillin-allergic, HIV-negative patients. The use of alternatives to penicillin has not been well studied in HIV-infected patients.

6.5.2. Latent Syphilis

6.5.2.1. Diagnostic Considerations:

HIV-infected patients who have early latent syphilis should be managed and treated according to the recommendations for HIV-negative patients who have primary and secondary syphilis. HIV-infected patients who have either late latent syphilis or syphilis of unknown duration should have a CSF examination before treatment.

6.5.2.2. Treatment

Patients with late latent syphilis or syphilis of unknown duration and a normal CSF examination can be treated with benzathine penicillin G, at weekly doses of 2.4 million units for 3 weeks. Patients who have CSF consistent with neuro-syphilis should be treated and managed as patients who have neurosyphilis (see Neurosyphilis).

6.5.2.3. Follow-Up:

Patients should be evaluated clinically and serologically at 6, 12, 18, and 24 months after therapy. If, at any time, clinical symptoms develop or nontreponemal titers rise fourfold, a repeat CSF examination should be performed and treatment administered accordingly. If during 12–24 months the nontreponemal titer does not decline fourfold, the CSF examination should be repeated and treatment administered accordingly.

6.6. Chancroid

HIV-infected patients who have chancroid should be monitored closely because, as a group, these patients are more likely to experience treatment failure and to have ulcers that heal more slowly. HIV-infected patients might require longer courses of therapy than those recommended for HIV-negative patients, and treatment failures can occur with any regimen. Some specialists prefer the erythromycin 7-day regimen for treating HIV-infected persons.

6.7. Herpes simplex viral infection

Immunocompromised patients might have prolonged or severe episodes of genital, perianal, or oral herpes. Lesions caused by HSV are common among HIV-infected patients and might be severe, painful, and atypical. HSV shedding is increased in HIV-infected persons. Whereas antiretroviral therapy reduces the severity and frequency of symptomatic genital herpes, frequent subclinical shedding still occurs. Suppressive or episodic therapy with oral antiviral agents is effective in decreasing the clinical manifestations of HSV among HIV-positive persons. HIV-infected persons are likely to be more contagious for HSV; the extent to which suppressive

antiviral therapy will decrease HSV transmission from this population is unknown. Some specialists suggest that HSV type-specific serologies be offered to HIV-positive persons during their initial evaluation, and that suppressive antiviral therapy be considered in those who have HSV-2 infection.

Recommended Regimens for Daily Suppressive Therapy in Persons Infected with HIV:

- Acyclovir** 400–800 mg orally twice to three times a day
- OR **Famciclovir** 500 mg orally twice a day
- OR **Valacyclovir** 500 mg orally twice a day

Recommended Regimens for Episodic Infection in Persons Infected with HIV:

- Acyclovir** 400 mg orally three times a day for 5–10 days
- OR **Famciclovir** 500 mg orally twice a day for 5–10 days
- OR **Valacyclovir** 1.0 grams orally twice a day for 5–10 days

Acyclovir, valacyclovir, and famciclovir are safe for use in immunocompromised patients in the doses recommended for treatment of genital herpes. For severe HSV disease, initiating therapy with acyclovir 5–10 mg/kg body weight IV every 8 hours might be necessary.

If lesions persist or recur in a patient receiving antiviral treatment, HSV resistance should be suspected and such patients should be managed in consultation with an HIV specialist, and alternate therapy should be administered. All acyclovir-resistant strains are resistant to valacyclovir, and the majority are resistant to famciclovir.

6.8. *Lymphogranuloma inguinale (LGV)*

Persons with both LGV and HIV infection should receive the same regimens as those who are HIV negative. Prolonged therapy might be required, and delay in resolution of symptoms might occur.

6.9. *Genital warts*

No data suggest that treatment modalities for external genital warts should be different in the setting of HIV-infection. However, persons who are immunosuppressed because of HIV or other reasons might have larger or more numerous warts, might not respond as well as immunocompetent persons to therapy for genital warts, and might have more frequent recurrences after treatment. Squamous cell carcinomas arising in or resembling genital warts might occur more frequently among immunosuppressed persons, therefore, requiring biopsy for confirmation of diagnosis. Because of the increased incidence of anal cancer in HIV-infected homo- sexual men, screening for anal SIL by cytology in this population is recommended by some specialists. However, evidence is limited concerning the natural history of anal intraepithelial neoplasias, the reliability of screening methods, the safety and response to treatments, and the programmatic considerations that

would support this screening approach. Until additional data are generated on screening for anal SIL, this screening approach cannot be recommended.

**National Guidelines on Sexually Transmitted Infections (STI)
and Reproductive Tract Infections (RTI) Case Management**

MODULE 7

**MONITORING AND
REPORTING
ON STI/RTI CASE
MANAGEMENT**

1)- INTRODUCTION

Sexually transmitted Infections (STIs) and reproductive tract infections (RTIs) remain a public health problem of major significance in most parts of the world. Failure to diagnose and treat STIs at an early stage may result in serious complications and sequelae, including infertility, ectopic pregnancy, and infant death. The presence of STIs substantially increases the risk of acquiring or transmitting the human immunodeficiency virus (HIV). Reproductive tract infection (RTI) not considered to be sexually transmitted (commonly vaginal yeast infection and bacterial vaginosis) are very common in women and there is evidence that BV may also be related to HIV acquisition. Treatment of these infections is important for patient health and well-being. Realizing its serious impact in society, NCHADS has taken a lead in improving the quality of STI/RTI management and has been working with other NGOs focusing mainly on the most at risk populations. In Cambodia, the STI/RTI management is an important component of public health activities. Given that most STIs/RTIs can be prevented and/or cured by an effective STI service delivery program, NHADS supports 32 special STI/RTI services that are delivered to the high risk populations like brothel and non-brothel based entertainment workers (EWs) and their clients. Services are made more effective and accessible care.

2)- OBJECTIVES

The objective of monitoring and supervision on STI/RTI service delivery, especially STI clinic are:

2.1 Main objectives

- To assess the current quality of STI service delivery
- To identify problems in providing quality STI service
- To improve the overall of clinical service delivery implemented at specialized STI clinics

2.2 Specific objectives

- To improved diagnosis and management of STIs
- To review the quality and adequacy of essential STI drugs, reagents for laboratory test
- To review the quality of record keeping on patient visits and related STI clinic reporting
- To ensure that STI prevention and care services are clinically proficient and provide adequate coverage.

3)- METHODOLOGY

This tool can be used by supervisor team on biannually. The team convenes to supervise and monitor the quality of STI care provided to low risk and high-risk group patients. It can be used to monitor the clinic set up, clinic records, and interview the clinic staffs. Regular supervisory and monitoring visits to health facilities are important component of ensuring continued provision of quality care and sustaining provider morale and motivation. So the monitoring and supervision need to adopt a facilitation process in order to encourage, updating and improved quality of care and the supervisor team should not criticize or blame the supervisees. Instead of saying “what you have done is wrong, try to say if you do it in this way it works better”. Training of supervision is important, so that they can reorient their skill to being supportive rather than judgmental and faultfinding. Staff performance can be assessed through observation of staff work. It can also be done in a more formal manner, and this is recommended, through the meeting. The meeting can start self-evaluation of the staff followed by a discussion where the manager and staff share their point of view. The meeting is an occasion to:

- Praise achievements
- Find solutions to the problems and difficulties encountered
- Identify training need.

4)- SUPERVISION TOOL

The STI service delivery supervision and monitoring tool includes measures to assess:

- Accessibility and clinic facilities
- Adequacy of staffing and supply
- Staff's skill and performance
- Documentation and record keeping

There are two components in monitoring and supervision:

Information of clinic fill out this assess by:

- Interviewing a clinician and the clinical team members
- Observing the consultation, examination, treatment and counseling activities
- Inspecting the equipment and supplies
- Observing the collection of laboratory specimens, procedures, test results and interpretation
- Assessment of documentation of medical and records and laboratory records

Using checklist during supervision as shown in next page

5)- Checklist for Monitoring and Supervision on Family Health Clinic (STI Clinic)

Name of Province.....Name of clinic.....

Name of operational health district (OD)..... :

Date of supervision.....

Supervision team leader:.....

Supervision team members

Clinic staff participating

.....
.....
.....

.....
.....
.....

A. Part I (Management)

1. ACCESSIBILITY

What type of clinic is it?

Separate from referral hospital/Health center

Integrate into referral hospital/ health center

Frequency of the clinic

Daily (working days: Monday to Friday)

If weekly, how many days per week

What is the time operating of the clinic?

Morning only

Morning and afternoon

2. STAFFS

In total How many staffs are working at this clinic?.....

How many professional staffs working at this clinic?

MD/MA.....

Nurse/Midwife.....

Counselor.....

Laboratory technician.....

How many clinicians who have been trained on STI/RTI Case management conducted by NCHADS?

- Initial training for two weeks.....
- Last refresher training

How many Lab technician who have been trained on STI/RTI lab management conducted by NCHADS?

- Initial training for two weeks.....
- Last refresher training

Are staffs appropriate for their current job yes no

If no specify.....

Are staffs appropriately trained for their current job yes no

If no specify.....

3. ROOM

How many rooms are there in this clinic?.....

Is there at least one room each for?

a. Waiting room/area

Yes

No

b. Register and history taking room for women

Yes

No

c. Clinical examination room for women

Yes No

d. Register, history taking and clinical examination room for men

Yes No

e. Education and counseling room

Yes No

f. Laboratory

Yes No

- Integrated into referral hospital laboratory
- Stand alone/Separated from referral hospital laboratory

4. INFECTION CONTROL

Is there cleanliness?

Clean and hygienic Average

Poor Very poor

Is there safety box?

Yes No

How it is disposed of medical waste?

Burial Burn at incineration

Other Specify.....

5. IEC MATERIAL & CONDOM

IEC material (wall chart, leaflet, booklet, etc...)

Properly display not display

Inappropriate not available

Quantity for distribution

Enough Insufficient not available

Condom supply

Freely available not supplied out of stock

6. RECORD KEEPING AND DOCUMENTATION

All records are kept in the same and safe place?

Yes No

If no, specify.....

SMH for SWs are kept in binders corresponding to brothels name or number?

Yes No

If no, specify.....

Clinic staff fills the information into Standard Medical History (SMH) correctly?

Yes No

If no, specify.....

All the reporting sent to Data Management Unit (DMU) on time?

Yes No

If no, specify.....

7. REQUEST THE PATIENT’S LEDGER BOOK OR REGISTER AND RECORD THE FOLLOWING FIGURES FOR THE LAST QUARTER:

- Total number of EWs¹ identify by outreach teams/peer educators
.....
- Total number of first visits for EWs.....
- Total number of follow up visits for EWs.....

- Total number of low-risk female patients.....

- Total number of male patients.....
 - MSM².....

8. RECORD THE NUMBERS OF COMMON TYPE OF DIAGNOSED STI/RTIs IN THE LAST QUARTER

1- FOR WOMEN

a. High risk women (brothel and non-brothel based entertainment workers)

First visit

Total Vaginal discharge.....

- Total number for vaginitis.....
 - Treat for bacterial vaginosis.....
 - Treat for trichomonas.....
 - Treat for candidiasis.....
- Treat for cervicitis.....

¹ EWs (entertainment workers) : brothel and non-brothel based (massage, karaoke, beer promoter, restaurants, etc.)

² MSM : Men who have sex with men

- Treat for both vaginitis and cervicitis.....
- Treat for syphilis (based on RPR positive).....
- Treat for genital ulcer.....
- Treat for PID.....
- Treat for Warts.....
- Treat for others.....Specify the most common symptom.....

Follow up visit

Total Vaginal discharge.....

- Total number for vaginitis.....
 - Treat for bacterial vaginosis.....
 - Treat for trichomoniasis.....
 - Treat for candidiasis.....
- Treat for cervicitis.....
- Treat for both vaginitis and cervicitis.....
- Treat for genital ulcer.....
- Treat for PID.....
- Treat for Warts.....
- Treat for others.....Specify the most common symptom.....

b. Low risk women

Total Vaginal discharge.....

- Treat for vaginitis only.....
- Treat for cervicitis only.....
- Treat for both vaginitis and cervicitis.....

- Treat for PID.....
- Treat for genital ulcer.....
- Treat for genital warts.....
- Treat for other.....Specify the most common symptom.....

2- FOR MEN

General men:

- **Urethral discharge**.....
- **Genital Ulcer**.....
- **Genital warts**.....
- **Inguinal bubo**.....
- **Scrotal swelling**.....
- **Treat for others**.....Specify the most common symptom.....

MSM:

- **Anal discharge**
- **Urethral discharge**
- **Genital Ulcer**.....
- **Genital warts**.....
- **Inguinal bubo**.....
- **Scrotal swelling**.....
- **Treat for others**.....Specify the most common symptom.....

B. Part II (Clinical)

1. HISTORY TAKING

Who takes the client's history?

MD/MA Midwife
Nurse Others specify.....

Observe whether the clinician welcome clients

Yes No

Assess whether the client is assured of privacy and confidentiality

Is there a separate private room for consultation?

Is there a curtain between the room and examination couch?

Observe whether the clinician asks the client

What is your main problem (symptoms) Yes No

What are the other associated problems Yes No

How long have you had these problems? Yes No

What type of additive drug used by the patient (if any)? Yes No

Observe whether the clinician asks the risk assessment for cervicitis

o Risk assessment for entertainment workers Yes No

If yes Correct Incorrect

o Risk assessment for general population Yes No

If yes Correct Incorrect

1. CLINICAL & EXAMINATION

In the consultation, room is there an examination couch and chair?

Yes No

Are there current national STI/RTI management guidelines in the clinic?

Yes No

Disposable gloves

Available Not available

Assess whether the clinician address the clinical examination

General examination

Properly done Not properly done Not done

Oral cavity examination

Properly done Not properly done Not done

Genital examination

Privacy and confidentiality

Properly done Not properly done Not done

Examination process

Positioning Properly done Not properly done Not done

Inguinal Area Properly done Not properly done Not done

Genitalia Properly done Not properly done Not done

Perineum Properly done Not properly done Not done

Anus Properly done Not properly done Not done

Speculum Examination

Procedure explained to the client Yes No

Ask if speculum examination is performed in all women?

Yes No

If no, specify.....

Use of lubricant

Water based other not used

Process of insertion

Correct Incorrect

Visualization of cervical os

Easy difficulty not able visualize

Specimen collection

Is client informed about the tests going to be performed?

Yes No

Has verbal consent been obtained for any test?

Yes No

Vaginal smear

Appropriately inappropriately not perform

Cervical smear

Appropriately inappropriately not perform

Urethral smear

Appropriately inappropriately not perform

Anal smear

Appropriately inappropriately not perform

Bimanual examination

Performed correctly incorrectly not performed

4. STI DIAGNOSIS

a. Based on which diagnosis, EWs are managed in Clinic?

| | | |
|-----------------------------------|--------------------------|--------------------------|
| EWs with vaginal discharge | | Asymptomatic |
| Presumptive (Risk assessment) | <input type="checkbox"/> | <input type="checkbox"/> |
| Etiological (laboratory approach) | <input type="checkbox"/> | <input type="checkbox"/> |

b. How is a general population with vaginal discharge diagnosed and managed in clinic?

Syndromic approach

Etiological (laboratory approach)

5. STI TREATMENT (Based on the national guidelines)

Treatment Correct incorrect

6. STI DIAGNOSIS AND TREATMENT EVALUATION

Fill in the information below for 5 most recent clients treated for an STI.

| Patients | Diagnosis of STI | Correct diagnosis | | Correct treatment | | PITC for HIV | | Partner notification | |
|----------|------------------|-------------------|----|-------------------|----|--------------|----|----------------------|----|
| | | Yes | No | Yes | No | Yes | No | Yes | No |
| 1 | | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | | | | | | | | | |
| 4 | | | | | | | | | |
| 5 | | | | | | | | | |

7. PARTNER NOTIFICATION/FOLLOW UP

Are there the following cards available in the clinic?

Health card for SWs Yes No

 If no, why.....

Partner notification card Yes No

 If no, why.....

Patient's referral card Yes No

 If no, why.....

Does the clinician explain the importance of partner notification & treatment?

 Yes No

Education on drug therapy/side effects

 Done not done

Does the clinician explain the condom use?

 Yes No

Ask the clinician whether he/she refers STI clients to VCCT?

 Yes No

C. PART III (LABORATORY)

1. INFECTION CONTROL

Is there cleanliness?

Clean and hygienic Average

Poor Very poor

Proper hand washing facility

Yes No

Disposable gloves

Available Not available

Disposal of sharp instruments by

Needle destroyer Puncture proof container

Safe use of reusable instruments: After through wash

By chlorination Boiling

Autoclaving other

Handling, collection and transportation of contaminated material

Hygienic Unhygienic

2. LABORATORY PROCEDURE AND TESTS

Normal saline wet mount

Correctly done not properly done not done

KOH test for Candida

Correctly done not properly done not done

Whiff test

Correctly done not properly done not done

pH test

Correctly done not properly done not done

Gram stain of vaginal smear

Correctly done not properly done not done

Methylene blue/ Gram stain of cervical smear

Correctly done not properly done not done

Gram stain of urethral smear

Correctly done not properly done not done

Gram stain of anal smear

Correctly done not properly done not done

Slide Keeping for quality control

Correctly done not properly done not done

RPR Test

Correctly done not properly done not done

If done, it is qualitative method quantitative method

Is there confirmatory test (TPPA/TPHA?)

Correctly done not properly done not done

3. RECORD THE NUMBERS OF COMMON TYPE OF STIS LAB IN THE LAST QUARTER

○ **Total number of endocervical smear**.....

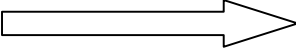
-WBC < 10.....

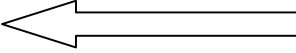
-WBC ≥ 10.....

-WBC > 25.....

- **Total number of vaginal smear**.....
 - Nugent score ≥ 7
 - Nugent score 4-6:.....
 - Nugent score: 0-3.....
 - Budding yeast/ hyphae.....
- **Total number of Wet preparation**.....
 - Trichomonas vaginalis.....
 - Budding yeast/hyphae.....
- **Total number of RPR test**.....
 - Qualitative.....
 - RPR positive.....
 - RPR negative.....
 - Quantitative.....
- **Total number of urethral smear**.....
 - WBC ≥ 5
- **Total number of anal smear**.....
 - WBC ≥ 5

C. PART III : Number of case referred to other services in last quarter

| | | |
|--|-----------------------------------|-------------|
| Family Health Clinic  | refer to VCCT : |cases. |
| | refer to OI/ART : |cases. |
| | refer to ANC : |cases. |
| | refer to family planning : |cases. |

| | | |
|--|-------------------------------------|-------------|
| Family Health Clinic  | refer from VCCT : |cases. |
| | refer from OI/ART : |cases. |
| | refer from ANC : |cases. |
| | refer from family planning : |cases. |

D. PART IV : The Management of STI/RTI drugs, material & equipment and consumables

1. STI Drugs

Visit the drug store and ask the health care provider in charge of drugs the following:

| Drugs | Is it currently in stock? | | Has the drug run out at any time? | | State the time and reasons for drug running out |
|-------------------------|---------------------------|----|-----------------------------------|----|---|
| | Yes | No | Yes | No | |
| Cefixime (200mg) | | | | | |
| Ceftriaxone (1g) | | | | | |
| Spectinomycin (2g) | | | | | |
| Azithromycin (500mg) | | | | | |
| Doxycycline (100mg) | | | | | |
| Erythromycin (250mg) | | | | | |
| Metronidazole (250mg) | | | | | |
| Clotrimazole (500mg) | | | | | |
| Nystatine (200000UI) | | | | | |
| Ciprofloxacin (500mg) | | | | | |
| Cotromoxazole (960mg) | | | | | |
| Benzathine PN 2.4UI inj | | | | | |
| Acyclovir (200mg) | | | | | |
| Podophyllin (25%) | | | | | |

2. List of Laboratory consumables

Please check the availability of following items

| N° | Items | Adequate | Inadequate | Remarks |
|----|-------------------------------|----------|------------|---------|
| 1 | Gloves | | | |
| 2 | Pipette tips | | | |
| 3 | KOH solution | | | |
| 4 | Glass slides | | | |
| 5 | Cover slips | | | |
| 6 | Pipette Pasteur disposable | | | |
| 7 | RPR test | | | |
| 8 | TPPA test | | | |
| 9 | Rapid test for syphilis | | | |
| 10 | Reagents for Gram stain | | | |
| 11 | Methylene blue | | | |
| 12 | Xylene | | | |
| 13 | Immersion oil | | | |
| 14 | Vacutainer tube | | | |
| 15 | Vacutainer Needle | | | |
| 16 | NSS/normal saline solution | | | |
| 17 | Laboratory register | | | |
| 18 | Laboratory bulletin form | | | |
| 19 | Microscopic cleaning paper | | | |
| 20 | Microscopic cleaning solution | | | |

3. List of Laboratory equipments

Please check the availability of following items

| N ^o | Items | Adequate | Inadequate | Remarks |
|----------------|-------------------------------------|----------|------------|---------|
| 1 | Air conditioner | | | |
| 2 | Microscopic | | | |
| 3 | Fridge | | | |
| 4 | RPR shaker | | | |
| 5 | Pipette Adjustment 5-20 μ l | | | |
| 6 | Pipette Adjustment 20-200 μ l | | | |
| 7 | Pipette Adjustment 100-1000 μ l | | | |
| 8 | Bench centrifuge | | | |
| 9 | Time alarm | | | |
| 10 | Rack tube | | | |
| 11 | Lamp alcohol | | | |
| 12 | Slide staining stand | | | |
| 13 | Slide forceps | | | |
| 14 | Scissors | | | |
| 15 | Wash bottle | | | |
| 16 | Revolving stool adjustable high | | | |

| | | | | |
|----|-------------|--|--|--|
| 17 | Safety box | | | |
| 18 | Garbage can | | | |

4. List of Clinical consumables

Please check the availability of following items

| N° | Items | Adequate | Inadequate | Remarks |
|----|---------------------------------------|----------|------------|---------|
| 1 | Gloves surgical sterile | | | |
| 2 | Syringe disposable 10ml | | | |
| 3 | Needle disposable, 21Gx1/2" | | | |
| 4 | Cotton wool (roll of 500g) | | | |
| 5 | Alcohol 70 ^{oc} | | | |
| 6 | Antiseptic | | | |
| 7 | pH vaginal test | | | |
| 8 | Sterile cotton swab for men | | | |
| 9 | Sterile cotton swab for women | | | |
| 10 | Disposable tongue depressor | | | |
| 11 | Condoms | | | |
| 12 | SHMs women (1 st visitors) | | | |
| 13 | SMHs women (follow-up) | | | |

| | | | | |
|----|---------------------------|--|--|--|
| 14 | SMHs Men | | | |
| 15 | Health card for SWs | | | |
| 16 | Patient's referral card | | | |
| 17 | Partner notification card | | | |
| 18 | Clinical register | | | |
| 19 | Glass plain tubes | | | |

5. List of Clinical equipments

Please check the availability of following items

| N ^o | Items | Adequate | Inadequate | Remarks |
|----------------|---------------------------------|----------|------------|---------|
| 1 | Gynecological examination table | | | |
| 2 | Examination table for men | | | |
| 3 | Revolving stool adjustable high | | | |
| 4 | Carriage dressing | | | |
| 5 | Sterilize hot air | | | |
| 6 | Clinical thermometer | | | |
| 7 | Stethoscope & Sphygmomanometer | | | |
| 8 | Drum sterilizing cylindrical | | | |
| 9 | Speculum vaginal bivalves | | | |
| 10 | Forceps | | | |

Module 7: Monitoring and supervision on STI/RTI case management

| | | | | |
|----|-----------------------|--|--|--|
| 11 | Forceps jar | | | |
| 12 | Scissors | | | |
| 13 | Solution cup | | | |
| 14 | Tray cafeteria | | | |
| 15 | Kidney basin | | | |
| 16 | Electro-cauterization | | | |
| 17 | Light operating stain | | | |
| 18 | Rectoscope | | | |
| 19 | Safety box | | | |
| 20 | Garbage can | | | |

**SUMMARY OF EVALUATING SCORE FOR PBSI
(RELATED TO ASSESSMENT FORM P2: STI)**

| | Qualify of STI/RTI case management performance | Yes/done | No/ not done well but acceptable | No/ not done | Remarks |
|----------------------------|---|----------|----------------------------------|--------------|---------|
| | | Score 2 | Score 1 | Score 0 | |
| 1 | Adequate number of staff | | | | |
| 2 | Staff appropriately qualified for their current job | | | | |
| 3 | Staff trained on for their current job | | | | |
| 4 | Appropriate physical structure (privacy, cleanness) | | | | |
| 5 | Standard case management guideline followed | | | | |
| 6 | Standard operating procedures practiced | | | | |
| 7 | Operating hours acceptable to target population | | | | |
| 8 | Provide regular screening of asymptomatic STI among SWs | | | | |
| 9 | Essential STI drug available and request on time | | | | |
| 10 | Medical equipment are in good condition | | | | |
| 11 | Laboratory equipment are in good condition | | | | |
| 12 | Gram stain/Methylene blue | | | | |
| 13 | Wet preparation | | | | |
| 14 | KOH preparation | | | | |
| 15 | RPR test | | | | |
| 16 | Perform education and counseling the patients | | | | |
| 17 | Perform provider initiative for HIV testing to the patients | | | | |
| Total score...../36 | | | | | |

Date.....
Seen and approved by
Director of NCHADS

Date.....
Supervisor team

.....

.....

QUARTERLY REPORT OF STI/RTI CARE & TREATMENT AT FAMILY HEALTH CLINIC (STI CLINIC)

(BASED ON LABORATORY APPROACH)

Month:.....

N° of Quarter:.....

Year: 200...

Name of Clinic:.....

OD:.....

Province:.....

| | | Month 1 | Month 2 | Month 3 |
|--|--------------|---------|---------|---------|
| Total number of visits for male patients | Total of men | | | |
| | Total of MSM | | | |
| Total number of visits for low risk female patients | | | | |
| Total number of first visits for non-brothel based entertainment workers (NBEWs) | | | | |
| Total number of follow up visits for non-brothel based entertainment workers (NBEWs) | | | | |
| Total number of first visits for brothel based entertainment workers (BEWs) | | | | |
| Total number of follow up visits for brothel based entertainment workers (BEWs) | | | | |
| <i>Total number of NBEWs identified by EW networks³</i> | | | | |
| <i>Total number of BEWs identified by EW networks</i> | | | | |

| | Month 1 | Month 2 | Month 3 |
|---|---------|---------|---------|
| Total number of clients referred to VCCT | | | |
| Total number of clients referred to OI/ART services (HIV infected patients) | | | |
| Total number of clients referred to ANC services (pregnant women) | | | |
| Total number of clients referred to Family Planning (FP) services | | | |

| | Month 1 | Month 2 | Month 3 |
|---|---------|---------|---------|
| Total number of clients referred from VCCT | | | |
| Total number of clients referred from OI/ART services | | | |
| Total number of clients referred from ANC services | | | |
| Total number of clients referred from Family Planning (FP) services | | | |

³ EW networks consist outreach teams, Mekar (entertainment manager), peer facilitators, peer educators.

| Men (new cases) | | | | | | | | | |
|-----------------|----------------------------|-----------|-----|-------|-----|-------|-----|-------|-----|
| | | Age group | | | | | | Total | |
| | | < 15 | | 15-49 | | ≥ 50 | | | |
| | Syndrome | Total | MSM | Total | MSM | Total | MSM | Total | MSM |
| | Urethral discharge | | | | | | | | |
| | Anal discharge | | | | | | | | |
| | Ano-Genital Ulcers | | | | | | | | |
| | Ano-Genital warts | | | | | | | | |
| | Scrotum swelling | | | | | | | | |
| | Inguinal bubo (LGV) | | | | | | | | |
| | Total new cases men | | | | | | | | |

| Low risk women (new cases) | | | | | |
|----------------------------|-----------------------------------|-----------|-------|------|-------|
| | | Age group | | | Total |
| | | < 15 | 15-49 | ≥ 50 | |
| | Syndrome | | | | |
| | Vaginal discharge | | | | |
| | <i>Vaginitis</i> | | | | |
| | <i>cervicitis</i> | | | | |
| | <i>Vaginitis + cervicitis</i> | | | | |
| | Pelvic Inflammatory Disease (PID) | | | | |
| | Ano-Genital ulcers | | | | |
| | Ano-Genital warts | | | | |
| | subtotal | | | | |

NOTE:

OD : Operational District

DSWs : Direct Sex Workers

EWs : Entertainment Workers: Karaoke, Massage parlors, beer garden, beer promotion, freelance sex workers,

CUWG : Condom Use Working Group

MSM : Men who have sex with men

VCCT : Voluntary Confidential Counseling and Testing

ANC : Antenatal Care

FP : Family Planning

| High-risk Women (new cases) | | | | | | | | | |
|-----------------------------|---------------------------------------|------|-------|-------|-------|------|-------|-------|-------|
| | | < 15 | | 15-49 | | > 50 | | Total | |
| | | BEWs | NBEWs | BEWs | NBEWs | BEWs | NBEWs | BEWs | NBEWs |
| First visit | Vaginal discharge | | | | | | | | |
| | <i>Vaginitis</i> | | | | | | | | |
| | <i>cervicitis</i> | | | | | | | | |
| | <i>Vaginitis + cervicitis</i> | | | | | | | | |
| | Pelvic Inflammatory Disease (PID) | | | | | | | | |
| | Ano-Genital ulcers | | | | | | | | |
| | Ano-Genital warts | | | | | | | | |
| | Syphilis (based on RPR +) | | | | | | | | |
| | Subtotal new cases first visit | | | | | | | | |
| Follow up visit | Vaginal discharge | | | | | | | | |
| | <i>Vaginitis</i> | | | | | | | | |
| | <i>cervicitis</i> | | | | | | | | |
| | <i>Vaginitis + cervicitis</i> | | | | | | | | |
| | Pelvic Inflammatory Disease (PID) | | | | | | | | |
| | Ano-Genital ulcers | | | | | | | | |
| | Ano-Genital warts | | | | | | | | |
| | Subtotal new cases FU | | | | | | | | |

| | | |
|----------------------------|-----|--|
| Date Reported | / / | |
| Report Completed by | | |
| Report Approved by | | |

NB:

EWs : brothel and non-brothel entertainment workers: Brothel, Karaoke, Massage parlors, beer garden, beer promotion, freelance sex workers,

QUARTERLY REPORT OF STI/RTI LABORATORY

| | | | | |
|---|---------------------|------------------------------|-------------------------|---------------------------------------|
| Endocervical smear | Total number | WBC < 10 | WBC 10-25 | WBC > 25 |
| | | GNID** (-) | GNID** (+) | <i>If performed by Gram Stain</i> |
| | | | | |
| Urethral smear | Total number | WBC < 5 | WBC ≥ 5 | |
| | | ICD* (-) | ICD* (+) | <i>If performed by Methylene Blue</i> |
| | | | | |
| | | GNID** (-) | GNID** (+) | <i>If performed by Gram Stain</i> |
| Anal smear | Total number | WBC < 5 | WBC ≥ 5 | |
| | | | | |
| Vaginal smear Wet preparation | | Trichomonas vaginalis | | |
| | Total number | (-) | (+) | |
| | | | | |
| | | Budding yeast/hyphae | | |
| | | (-) | (+) | |
| | | | | |
| | | Clue cells | | |
| | (-) | (+) | | |
| | | | | |
| Vaginal smear Gram stain | | BV | | |
| | Total number | Nugent score: 0-3 | Nugent score 4-6 | Nugent score ≥ 7 |
| | | | | |
| | | Budding yeast/hyphae | | |
| | | (-) | (+) | |
| | | | | |
| Vaginal smear pH (vaginal) | Total number | ≤ 4.5 | > 4.5 | |
| | | | | |
| Vaginal smear Whiff test or Amine test | Total number | (-) | (+) | |
| | | | | |
| RPR test | | Qualitative | | |
| | Total number | RPR (-) | RPR (+) | |
| | | | | |
| TPHA/TPPA/Rapid test | | (-) | (+) | |
| | Total number | | | |

* ICD : Intra-cellular Diplococci , ** GNID : Gram Negative Intracellular Diplococci

| | |
|----------------------------|-----|
| Date Reported | / / |
| Report Completed by | |
| Report Approved by | |

QUARTERLY REPORT OF STI/RTI CARE & TREATMENT AT HEALTH CENTER

Month:.....

N° of Quarter:.....

Year: 200....

Name of Health center:.....

OD:.....

Province:.....

| | | Month 1 | Month 2 | Month 3 |
|--|--------|---------|---------|---------|
| Total number of visits for male patients | | | | |
| Total number of visits for female patients | | | | |
| Total number of visits for partners who were notified and treated. | Male | | | |
| | Female | | | |

| | | Age group | | | Total |
|---------------------------------|-----|-----------|------|--|-------|
| Syndrome | <15 | 15-49 | ≥ 50 | | |
| Men (new cases) | | | | | |
| Urethral discharge | | | | | |
| Genital Ulcer | | | | | |
| Genital warts | | | | | |
| Total of new cases (men) | | | | | |

| Women (new cases) | | | | | |
|-----------------------------------|--|--|--|--|--|
| Vaginal discharge | | | | | |
| <i>Vaginitis</i> | | | | | |
| <i>Vaginitis + cervicitis</i> | | | | | |
| Pelvic Inflammatory Disease (PID) | | | | | |
| Genital ulcer | | | | | |
| Genital warts | | | | | |
| Total of new cases (women) | | | | | |

Module 7: Monitoring and supervision on STI/RTI case management

| | Month 1 | Month 2 | Month 3 |
|--|---------|---------|---------|
| Total number of STI/RTI patients referred to VCCT | | | |
| Total number of STI/RTI patients referred to ANC services | | | |
| Total number of STI/RTI patients referred to Family Planning (FP) services | | | |

| | | |
|----------------------------|-----|--|
| Date Reported | / / | |
| Report Completed by | | |
| Report Approved by | | |

NOTE:

OD : Operational District

STI : Sexually Transmitted Infections

RTI : Reproductive Tract Infections

VCCT : Voluntary Confidential Counseling and Testing

ANC : Antenatal care

FP : Family Planning

REFERENCES

1. *Guidelines for implementation of STI services*. NCHADS, Ministry of Health of Cambodia (2001)
2. *National Guidelines on STD syndromic case management (revised edition)*. NCHADS, Ministry of Health of Cambodia (2003)
3. *National Guidelines on STD case management based on syndromic case management, speculum examination and laboratory*. NCHADS, Ministry of Health of Cambodia (2003)
4. *National Guidelines on STD case management in sex workers*. NCHADS, Ministry of Health of Cambodia (2003)
5. *Guidelines for the management of sexually transmitted infections*. World Health Organization (2003)
6. *Laboratory test for STD management*. NCHADS, Ministry of Health of Cambodia (2005)
7. *STI Sentinel Surveillance (SSS)*. NCHADS, Ministry of Health of Cambodia (2005)
8. *Sexually transmitted and other reproductive tract infections. A guide to essential practice*, World Health Organization (2005)
9. *Standard Operating Procedures (SOP) for STI clinic*. NCHADS, Ministry of Health of Cambodia (2006)
10. *National Policy and Strategies for prevention and care on STIs/RTIs*. NCHADS, Ministry of Health of Cambodia (2006)
11. *HIV Sentinel Surveillance (HSS)*. NCHADS, Ministry of Health of Cambodia (2006)
12. *Sexually Transmitted Diseases Treatment Guidelines*. Department of Health and Human Services Centers for Disease Control and Prevention. US-CDC (2006)

PRINTED BY

