بسم الله الرحمن الرحيم

Republic of Sudan

Federal Ministry of Health

NATIONAL SEXUALLY TRANSMITTED INFECTIONS (STIs) MANAGEMENT GUIDELINE

Communicable and Non-Communicable Disease Control Directorate

Case Management Department

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ABBREVATIONS:

AIDS	Acquired Immune Deficiency Syndrome
HIV	Human Immune Deficiency Virus
HSV	Herpes Simplex Virus
HPV	Human Papilloma Virus
IUD	Intra Uterine Device
STIs	Sexual Transmitted Infections
WHO	World Health Organization

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PREFACE

Sexually Transmitted Infections (STIs) are among the most common causes of illness in the world and have far-reaching health, social and economic consequences for many countries.

The emergence and spread of HIV infection and AIDS have had a major impact on the management and control of STI. At the same time, resistance of several sexually transmitted pathogens to antimicrobial agents has increased, adding to therapeutic problems.

In 1999, WHO published recommendation for the comprehensive management of patients with STIs within the broader context of control, prevention and care programmes for STIs and HIV infection. WHO convened an Advisory Group Meeting on sexually Transmitted Diseases Treatment in May 1999 to review and update treatment recommendations in the light of recent developments (see annex).

This publication presents the revised recommendations, both for a syndromic approach to the management of patients with STI symptoms and for the treatment of specific STI, based on global evidence and surveillance data. It also provides information on the notification and management of sexual partners and on STI in children and adolescents.

Prevention and appropriate treatment of STI patients at their first encounter with a health care provider is, therefore, an important public health measure. When this involves adolescent1 patients, there is the potential to influence future sexual behaviour and treatment- seeking practices at a critical stage of development.

The use of appropriate standardized protocols is strongly recommended in order to ensure adequate treatment at all levels of the health service. Such standardized treatment also facilitates the training and supervision of health providers, delays the development of antimicrobial resistance in sexually transmitted agents such as Neisseria gonorrhoea (N. gonorrhoea) and Haemophilus ducreyi (H. ducreyi), and is an important factor in rational drug recruitment.

It is anticipated that the following recommendations will help countries to develop standardized protocols adapted to local epidemiological and antimicrobial sensitivity patterns. It is recommended that national guidelines for the effective management of STI be developed in close consultation with local STIs and public health experts.

Reproductive tract infections encompass three main groups of infection, particularly in women, and sometimes in men. These groups are endogenous infections in the female genital tract (e.g. candidiasis and bacterial vaginosis), iatrogenic infections that may be acquired through non- sterile medical, personal or cultural practices and classical STI.

The epidemiological data on STIs in Sudan are scattered and as expected it is difficult to find reliable and valid data.

In the year **2015:**

Syndrome	Number of cases	% of syndrome
Urethral Discharge	20,808	22%
Vaginal Discharge	38,976	41%
Genital Ulcer	4,824	5%
Inguinal Bubo	6,000	6%
Ophthalmic Neonatorum	1,392	1%
Lower Abdominal Pain in females	23,832	25%
Total 2015	**95,832**	

Data reported from all Sudan in 2016 were as below:

Syndrome	Male	Female	Total Number of cases
Urethral Discharge	12,236		12,236
Vaginal Discharge		21,752	21,752
Genital Ulcer	1,867	1,568	3,435
Inguinal Bubo	1,171	1,105	2,276
Ophthalmic Neonatorum	551	531	1,082
Lower Abdominal Pain in females		11,213	11,213
Scrotal swelling	1,942		1,942
Total 2016	**17,767**	**53,936**	**71,703**

1. INTRODUCTION

1.1. BACKGROUND

Sexually transmitted infections (STI) remain a public health problem of main significance in most parts of the world. The incidence of acute STI is thought to be high in many countries and failure to diagnose and treat STI at an early stage may result in serious complications and sequalae, including infertility, foetal wastage, ectopic pregnancy, anogenital cancer and premature death, as well as neonatal and infant infections. The individual and national expenditure for STI care be considerable.

The appearance of the human immunodeficiency virus (HIV) and the acquired immunodeficiency syndrome (AIDS) has focused greater attention on the control of STI. There is a strong correlation between the spread of conventional STI and HIV transmission and both ulcerative and non-ulcerative STI have been found to increase the risk of sexual transmission of HIV.

The emergence and spread of HIV infection and AIDS complicated the management and control of some other STIs. For example, the treatment of chancroid has become increasingly difficult in areas with a high prevalence of HIV infection, due to the HIV related immunosuppression.

Antimicrobial resistance of several sexually transmitted pathogens is increasing, rendering some regimens infective.

New agents Such as third-generation cephalosporins and fluoroquinolones, capable of treating infections with resistant strains are available but are expensive. However, their initial high cost must be weighed against the cost of inadequate therapy, which may lead to complications, relapse, further spread and selection for antimicrobial resistance.

1.2. RATIONALE FOR STANDARDIZED TREATMENT RECOMMENDATIONS

Effective management of STI is one of the foundations of STI control, as it prevents the development of complications and sequelae, decreases the spread of these diseases in the community and offers a unique opportunity for targeted education about HIV.

1.3. CASE MANAGEMENT:

STI case management is the care of a person with an STI- related syndrome or with a positive test for one or more STI. The components of case management include: history taking, examination, correct diagnosis, early and effective treatment, advice on sexual behaviour, promotion and/or provision of condoms, partner notification and treatment, case reporting and clinical follow-up as appropriate. Thus, effective, case management consists not only of antimicrobial therapy to obtain cure and reduce infectivity, but also comprehensive care of the patient's needs for reproductive health.

1.4. SYNDROMIC MANAGEMENT:

Etiological diagnosis of STI is problematic in many settings. It places constrains on time, resources, costs and access to treatment. In addition, the sensitivity and specificity of available tests can vary significantly, thus, affecting negatively, the reliability of laboratory testing for STI diagnosis. In settings where laboratory facilities are available there must be suitably qualified personnel with adequate training to perform technically demanding procedures, and the establishment of external quality control is mandatory.

Few developing country health facilities have the laboratory equipment or skills required for aetiological diagnosis of STI. To overcome this, a syndrome-based approach to the management of STI patients was developed and promoted in a large number of countries in the developing world. Syndromic management is based on the identification of consistent groups of symposiums and easily recognized signs (syndromes), and the provision of treatment that will deal with the majority or most serious organisms responsible for producing a syndrome. WHO developed a simplified tool (a flowchart or algorithm) to guide health workers in the implementation of syndromic management.

Syndromic management for urethral discharge in men and genital ulcers in men and women has proved to be both vital and feasible. It has resulted in adequate treatment of large numbers of infected people, and is inexpensive, simple and very cost-effective.

WHO also developed syndromic case management algorithms for women with symptoms of vaginal discharge and/ or lower abdominal pain. However, it is important to recognize the limitations of the vaginal discharge algorithms, particularly in the management of cervical (gonococcal and chlamydial) infections. In general, but especially in low prevalence setting and in adolescent females, endogenous vaginitis rather than STI is the main cause of vaginal discharge. While attempts have been made to increase the sensitivity and specificity of vaginal algorithm for the diagnosis of cervical infection, through the introduction of an appropriate, situation specific risk assessment, both remain low. Moreover, some of the risk assessment questions based on demographics, such as age and marital status, tend to wrongly classify too many adolescents as at risk of cervical infection. Therefore, there is a need to identify the main STI risk factors for adolescents in the local population and adapt the risk assessment accordingly. For adolescents in particular it may be preferable to base the risk factors on sexual behaviour pattern.

Recommendations for treatment using a syndrome-based approach are given in section 2.

1.5. RISK FACTORS FOR STI-RELATED CERVICITIS: -

The algorithms currently available for the management of cervical infection are far from ideal. Initially, it was thought that the finding of vaginal discharge would be indicative of both vaginal and cervical infection. However, it has become clear that vaginal discharge is indicative of the presence of vaginal infection, it is poorly predictive of cervical infection (gonococcal and/ or chlamydial), mainly in adolescent female.

Some clinical signs seem to be more frequently associated with the presence of cervical infection. In the published literature, clinical observations that have been consistently found to be associated with cervical infection are the presence of cervical muco-pus, cervical erosions, cervical friability and bleeding between menses or during sexual intercourse.

A number of demographic and behavioural risk factors have also been frequently associated with cervical infection. Some of these which, in some setting, have been found to be predictive of cervical infection are age below 21 years (or 25 in some settings), being unmarried, more than one sexual partner in the last 3 months, new partner in the previous 3 months, currently partner has a sexually transmitted infection and recent use of condoms by the partner. Such risk factors are, however, usually specific for the population group for which they have been identified and validated, and cannot easily be generalized to other populations or to other countries. Most researchers have suggested that more than (1)

demographic risk factor in any particular patient is more valid than just a single one, but that clinical signs can be valid as single factors.

Adding these signs and risk assessment to the vaginal discharge algorithm does increase its specificity and, thus, the positive productive value, although the latter remains low, especially when the algorithm is applied to populations with relatively low rates of infection.

1.6. SELECTION OF DRUGS:

Antimicrobial resistance of several sexually transmitted pathogens has been increasing in many parts of the world and this has reduced some low-cost regimens ineffective. Recommendations to use more effective drugs frequently raise concerns about cost and possible misuse.

A two-tier drug policy with the provision of less effective drugs at the peripheral health care level and the most effective and usually more expensive drugs only at a referral level may result in an unacceptable rate of treatment failures, complications and referrals, and may erode confidence in health services. This approach is not recommended. The drugs used for STI in all health care facilities should be at least 95% effective criteria for the selection of drugs are listed in the box below.

Criteria for the selection of STI drugs:

Drugs selected for treating STI should meet the following criteria:

- High efficacy (at least 95%)
- Low cost
- Acceptable toxicity and tolerance
- Organism resistance unlikely to develop or likely to be delayed
- Single dose
- Oral administration
- Not contraindicated for pregnant or lactating women
- Appropriate drugs should be included in the national Essential Drugs list and in choosing drugs; consideration should be given to the capabilities and experience of health personnel.

2. TREATMENT OF STI-ASSOCIATED SYNDROMES

This section discusses the management of the most common clinical syndromes caused by sexually transmitted agents. Flow charts (algorithms) for the management of each syndrome are provided.

For all these condition (except vaginitis) the sexual partner(s) of patients should also be examined for STI and promptly treated for the same conditions as index patient.

Successful management of STI requires that staff is respectful of patients and are not judgmental. Examination must be done in appropriate surroundings where privacy can be ensured and confidentiality guaranteed and conversant with the changes in anatomy and physiology associated with the different maturation stages e.g. the menarche in young girls or nocturnal emissions in boys. In some situations, health care workers require training to overcome their own sensitivities and be able to address the issue of sexuality and STI in an open and constructive manner.

2.1. 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.

If microscopy is available, examination of the urethral smear may show an increased number of polymorph nuclear leukocytes and a gram stain may demonstrate the presence of gonococci. In the male, more than 5 polymorph nuclear leukocytes per high power field (x 100) are indicative of urethritis.

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

RECOMMEND AND SYNDROMIC TREATMENT

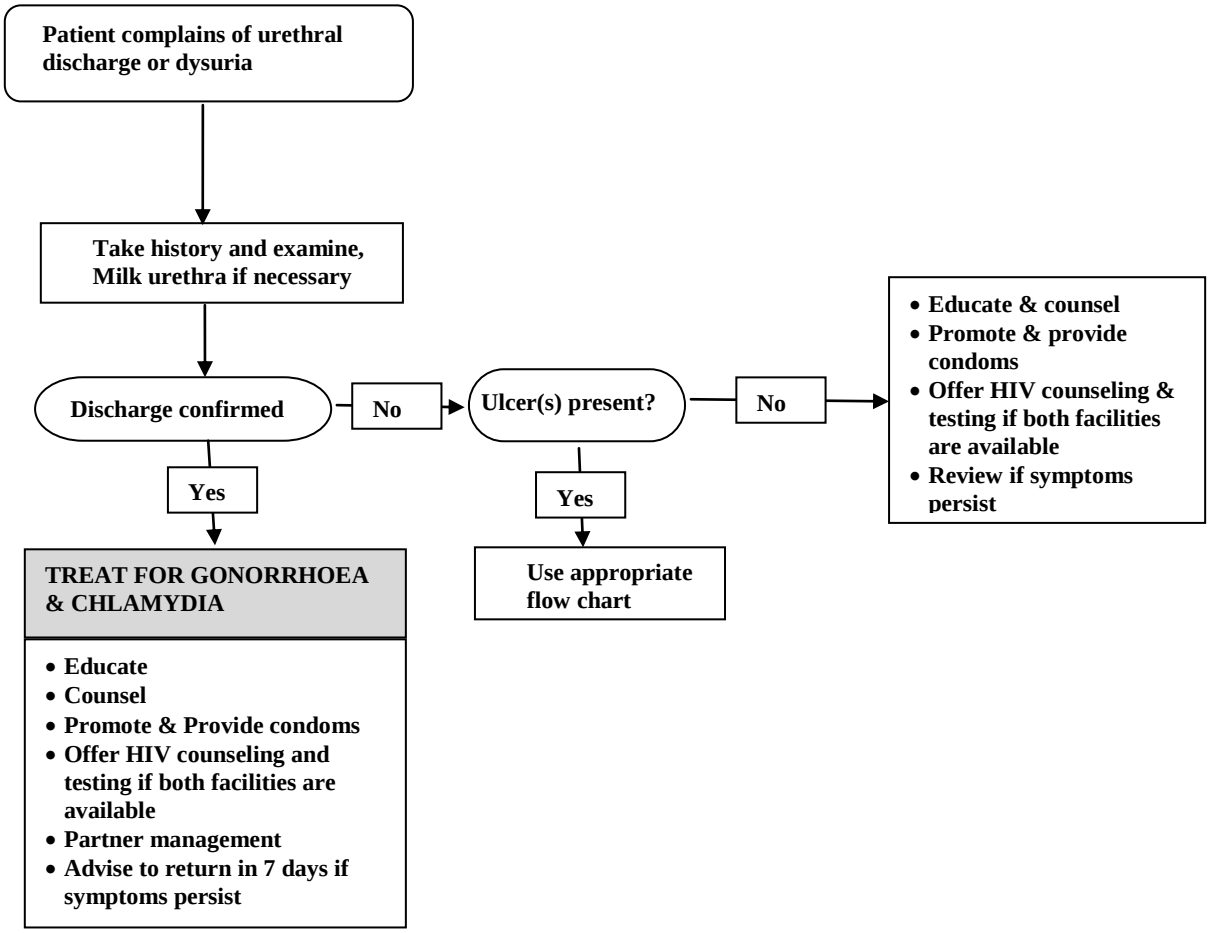
- Therapy for uncomplicated gonorrhoea
  PLUS
- Therapy for chlamydia
- Patients should be advised to return if symptoms persist 7 days after start of therapy

At a glance: Treatment of Urethral Discharge

Ciprofloxacin 500 mg bid.
Plus,
Doxycycline 100 mg twice a day for 7 days.
OR
Erythromycin 500 mg or orally 4 times a day for 7 days (if Doxycycline is contraindicated)

Treat the partner as well with Kanamycin and Doxycycline but remember that if the partner is pregnant or lactating then do not give doxycycline, instead give kanamycin 2 gram and Erythromycin 500 mg orally 4 times a day for 7 days

Figure 1. URETHRAL DISCHARGE

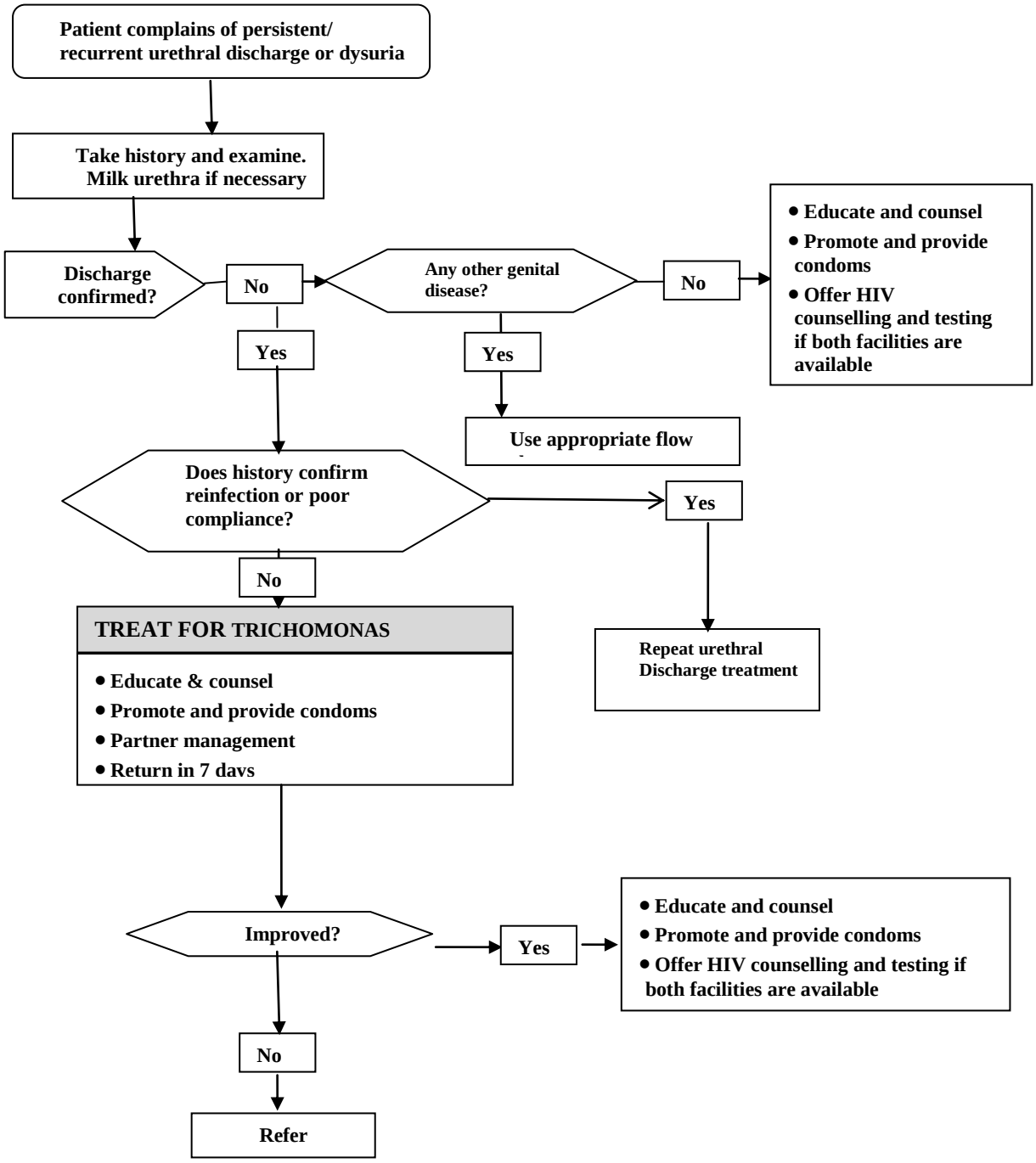


2.1.1. PERSISTENT/RECURRENT URETHRAL DISCHARGE

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 no new evidence suggesting high prevalence of T. vaginalis 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 patients should be treated for T. vaginalis, if the local epidemiological pattern so indicates. If the symptoms still persist at follow up the patient must be referred.

Figure 2 PERSISTENT / RECURRENT URETHRAL DISCHARGE IN MEN



N.B. This flowchart assumes effective therapy for Gonorrhoea and Chlamydia to have been received and taken by the patient prior to this consultation

2.2. GENITAL ULCER

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 setting 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 present, patients with genital ulcers should be treated for both conditions at the times of their initial presentation to ensure adequate therapy in case of loss to follow-up. In areas where granuloma inguinale is also prevalent, treatment for this condition should be included. In areas where granuloma inguinale or lymphogranuloma venereum (LGV) is prevalent, treatment for these conditions should be included. In many parts of the world, genital herpes is the most frequent cause of genital ulcer disease. Where HIV infection is prevalent, an increasing portion of cases of genital ulcer diseases is likely to harbour herpes simplex virus. Herpetic ulcer may be atypical and persist for long periods in HIV- infected patients.

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.

Recommended syndromic treatment

- Therapy for syphilis

PLUS, EITHER

- Therapy for chancroid where it is prevalent

OR

- Therapy for granuloma where it is prevalent

OR

- Therapy for LGV where it is prevalent

AT A GLANCE: GENITAL ULCER
Benzathine penicillin G 2.4 million units intramuscularly in a single dose **PLUS** Erythromycin 250 mg orally 3 times a day for 5 days. **OR** Doxycycline 100 mg orally twice daily for 15 days.
For **pregnant women** use: Erythromycin 500 mg orally four times daily for 15 days.

For treatment of vesicles:

- Reassure the patient that is self-limiting.

- Explain the importance of keeping the area clean and dry.
- Advice the patient not to have sex until the lesion healed.
- Explain the possibility of recurrence.
- Women with genital herpes should have an annual pap smear.
- The decision to treat for cancroids, granuloma inguinale or LGV depends on the local epidemiology of the infections.
- Depending upon local availability, management for herpes could include specific anti-viral therapy, but in all setting, appropriate counselling is essential.

GENITAL ULCER AND HIV INFECTION

There have been a number of anecdotal reports in the literature suggesting that the natural history of syphilis may be altered as a result of concomitant HIV infection. Some reports have indicated atypical presentation of both primary and secondary syphilis lesions. Some reports have also noted an increase in treatment failure rates among patients with early syphilis who are treated with single-dose therapies of penicillin.

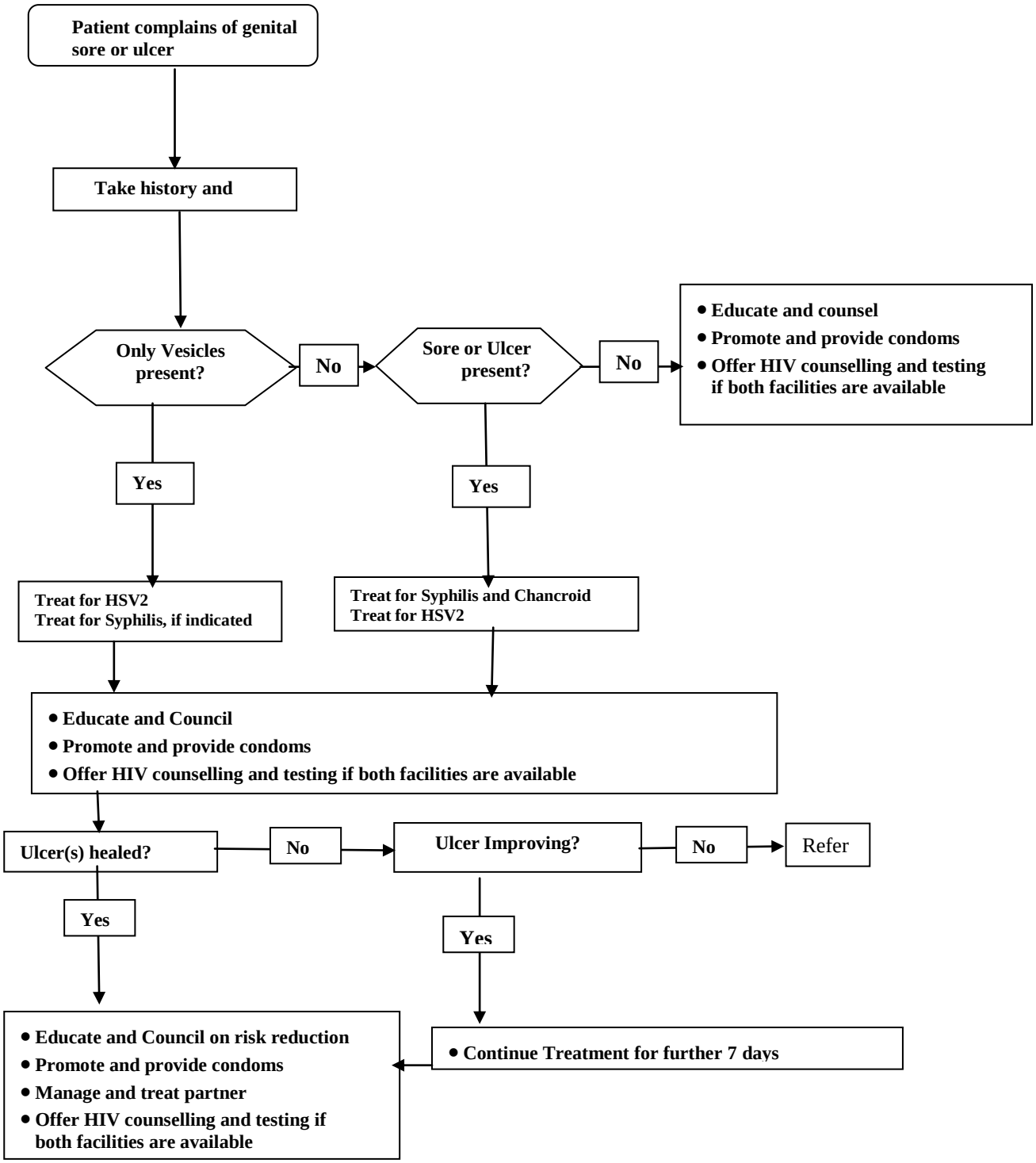
In chancroid atypical lesions have been reported in HIV-infected individuals. The lesions tend to be more extensive, producing multiple lesions that may be accompanied by systemic manifestations such as fever and chills. Reports of rapidly aggressive lesions have been noted by some clinicians. This emphasizes the need for early treatment, especially in HIV-infected individuals.

There is evidence to suggest that HIV infection may increase rate of treatment failure in chancroid, especially when single- dose therapies are given. More research is needed to confirm these observations.

Herpes simplex lesions may present as persistent multiple ulcers that require medical attention, as opposed to self- limiting vesicles and ulcers which occur in immunocompetent individuals. Thus, antiviral treatment may have to be considered therapeutically or prophylactically to offer comfort to the patient. Adequate education need to be given to the patient to explain the nature and purpose of treatment in order to avoid false expectations of cure.

Genial Ulcer Disease Management	Herpes Simplex Management
▪ Treat for syphilis, and, depending upon local epidemiology, either chancroid, granuloma inguinale or lymphogranuloma venereum	▪ Advise on basic care of the lesion (keep clean and dry)
▪ Aspirate any fluctuant glands (surgical incision should be avoided)	▪ Educate and counsel on compliance and risk reduction
▪ Offer syphilis serologic testing and HIV serologic testing	▪ Promote and provide condoms
▪ Review if lesion not fully healed + refer	▪ Advise to return in 7 days if lesion is not fully healed, and sooner if there is clinical deterioration; if so; treat for other causes of GUD as per guidelines.

Figure 3 GENITAL ULCERS



2.3 INGUINAL BUBO

Inguinal and femoral buboes are localized enlargement of the lymph nodes in the groin area, which are painful and may be fluctuant. They are frequently associated with lymphogranuloma venereum and chancroid. In many cases of chancroid an associated genital ulcer is visible, but occasionally may not be non-sexually transmitted local and systemic infections (e.g. infections of the lower limb) can also cause swelling of inguinal lymph nodes.

Recommended syndromic treatment

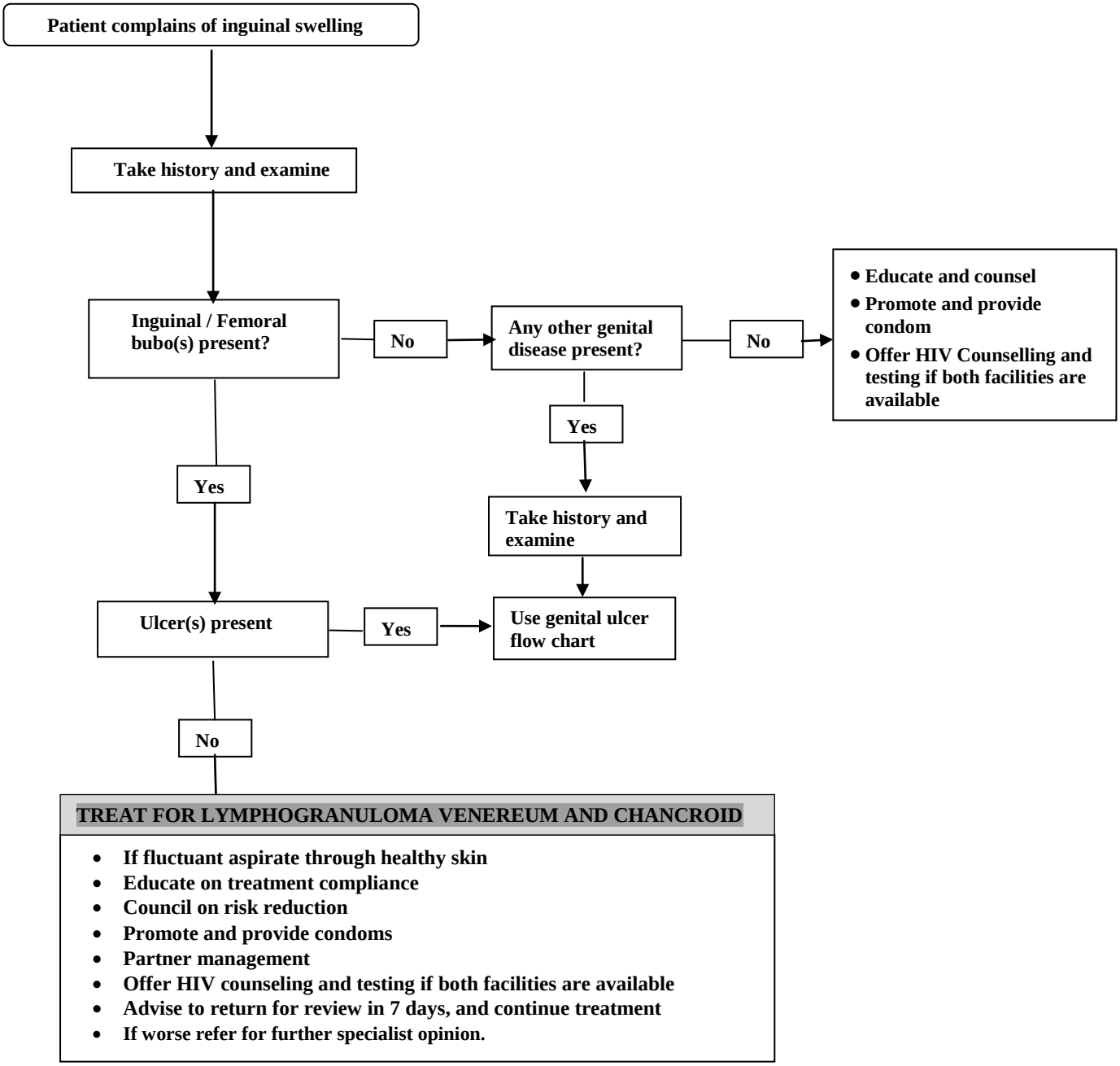
- Doxycycline, 100 mg orally, twice daily for 14 days.

OR

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

Some cases may require longer treatment than 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.

Figure 4 INGUINAL BUBO



2.4 SCROTAL SWELLING:

Inflammation of the epididymis (epididymis usually manifests itself by acute onset of unilateral testicular pain and swelling, often with tenderness of the epididymis and vas deferens and occasionally with erythema and oedema of the overlying skin. In men under 35 years of age this is more frequently due to sexually transmitted organisms than in those over 35 years 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. The adjacent testis is often also inflamed (orchitis), giving rise to epididymo-orchitis.

In older men, where there may have been no risk of 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-infections 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.

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

RECOMMENDED SYNDROMIC TREATMENT

- Therapy for uncomplicated gonorrhoea

PLUS

- Therapy for chlamydia

AT A GLANCE: SCROTAL SWELLING

Ciprofloxacin tabs 500 mg.
OR
Cotrimoxazole (Trimethoprim80 mg/ 400 mg Sulfamethoxazole) — for 5 days.

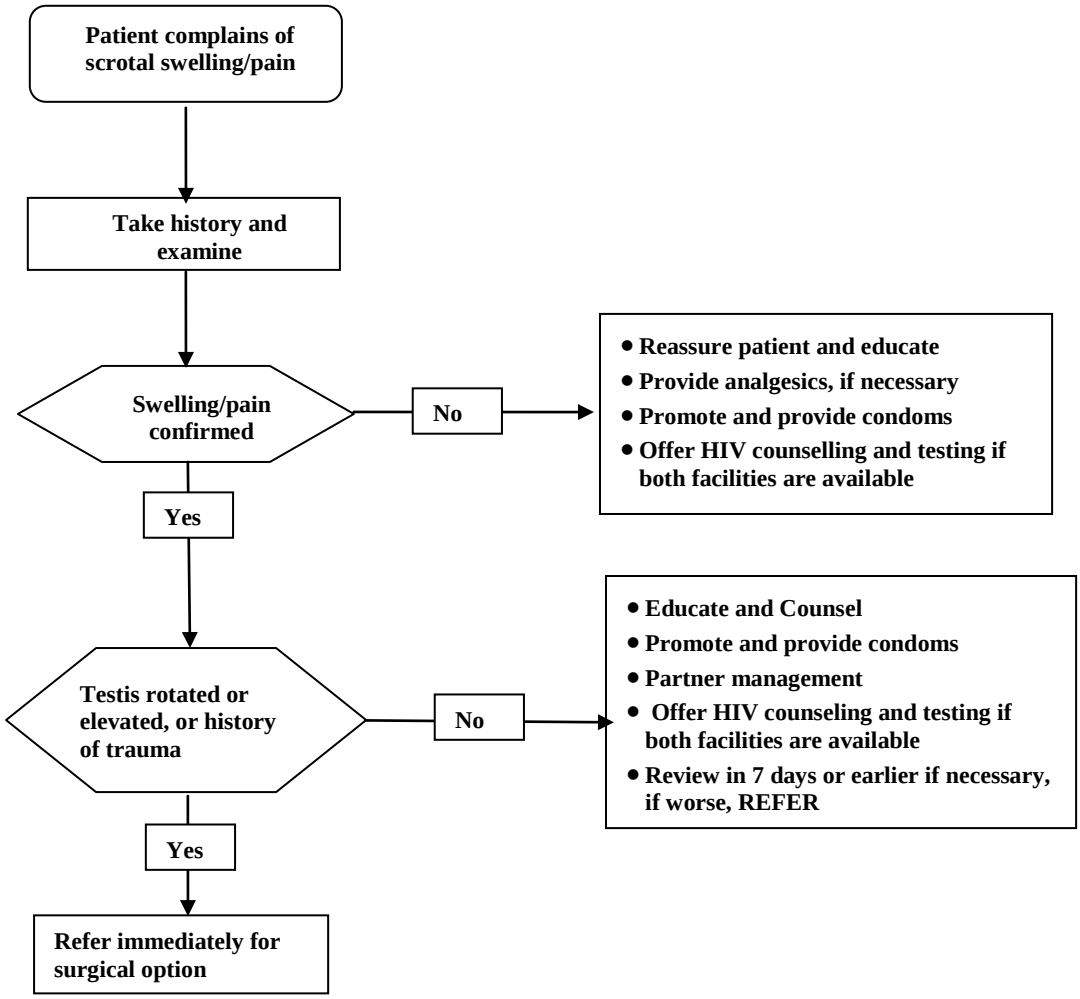
Plus

Doxycycline 100 mg orally twice daily for 7 days.
OR
Erythromycin500mg orally four times daily for 7 days.

Adjuncts therapy:

Bed rest and scrotal support until local inflammation and fever subside

Figure 5 SCROTAL SWELLING



2.5 VAGINAL DISCHARGE

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 trachomatis cause cervical infection. The clinical detection 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.

Among women presenting with discharge, one can attempt to identify those with an increased likelihood of being infected with N. gonorrhoea and/or C. trachomatis. Microscopy add a 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 adequate to the local situation.

Knowledge of the prevalence of gonococcal and/ or chlamydia in women presenting with vaginal discharge is important for the decision to treat for cervical infection. The higher the prevalence, the stronger the justification for treatment. Risk assessment positive women have higher likelihood of cervical infection than those who are risk negative. Women with vaginal discharge and a positive risk assessment could therefore, have 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 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 setting). While this may assist in detecting some women with cervical infection, it is likely that there will be substantial over diagnosis

CERVICAL INFECTION

Recommended syndromic treatment

- Therapy for uncomplicated gonorrhoea

PLUS

- Therapy for chlamydia

AT A GLANCE

Note:

- Tetracyclines are contraindicated in pregnancy.
- Trimethoprim/ sulfamethoxazole should only be used in areas where this combination has been shown to be effective against uncomplicated gonorrhoea.

VAGINAL INFECTION

Recommended syndromic treatment

- Therapy for bacterial vaginosis

PLUS

- Therapy for Trichomonas vaginalis

AND, WHERE INDICATED,

- Therapy for Candida albicans

AT A GLANCE

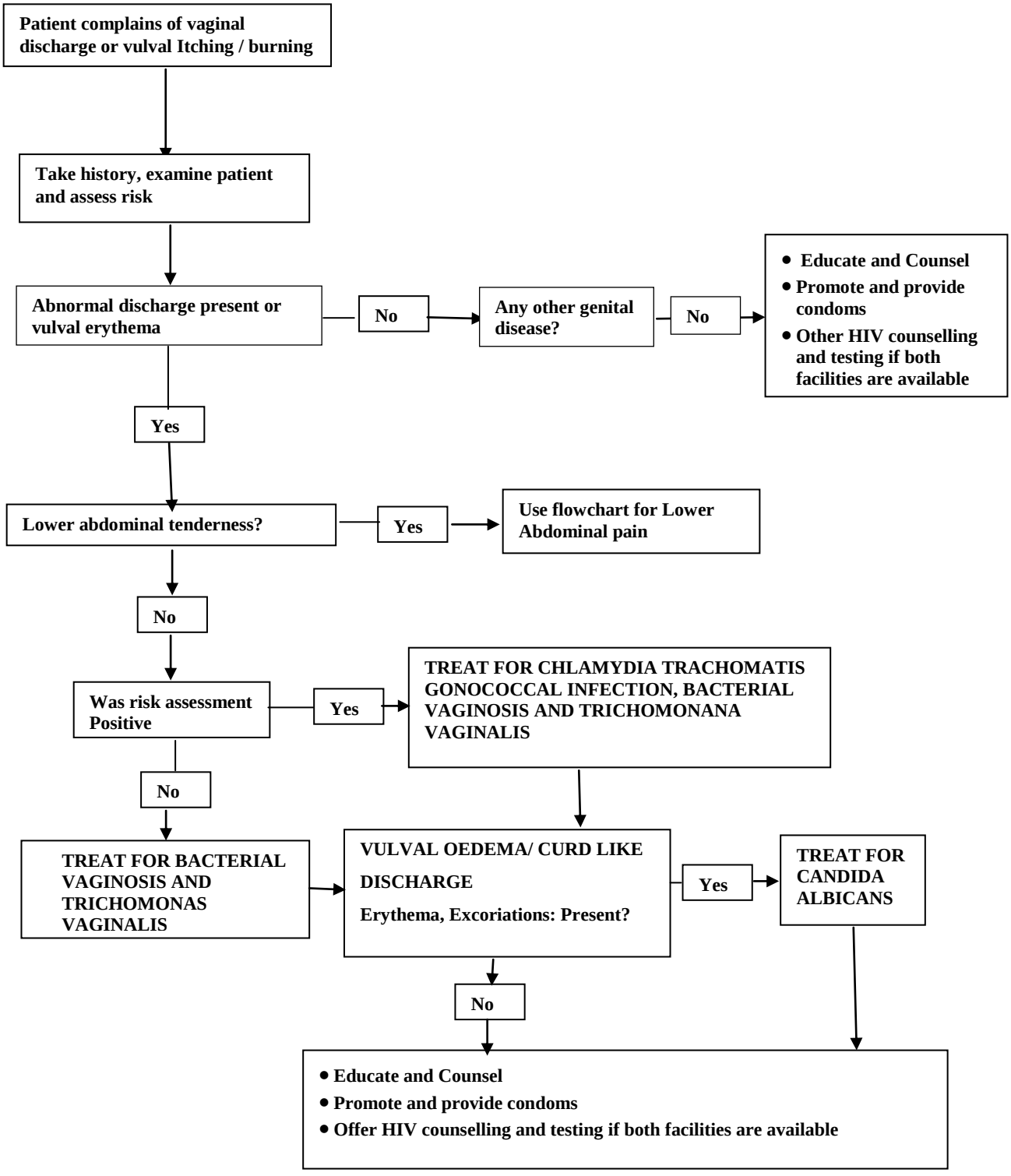
Treatment of Vaginitis:
For treatment of Trichomoniasis and bacterial vaginosis give Metronidazole 250 mg orally (give a dose of grams).
For effective treatment of candidiasis: give NYSTATIN 100 000 IU (ONE PESSARY) inserted intra- vaginally once a day for 14 days.

Treatment of Vaginitis and Cervicitis:
Treat the patient for vaginitis as above.
Treat the patient for cervicitis:
For the treatment of gonococcal cervicitis, give: Kanamycin I.M. injections 2 grams
PLUS
for the treatment of chlamydia cervicitis: give DOXYCYCLINE 100 mg orally twice daily for 7 days or TETRACYCLINE 500 orally four times for 7 days.
OR
(DURING PREGNANCY AND LACTATION give ERTHROMYCIN 500 mg orally four times daily for 7 days)

NOTE:

- Patients taking metronidazole should be cautioned to avoid alcohol.

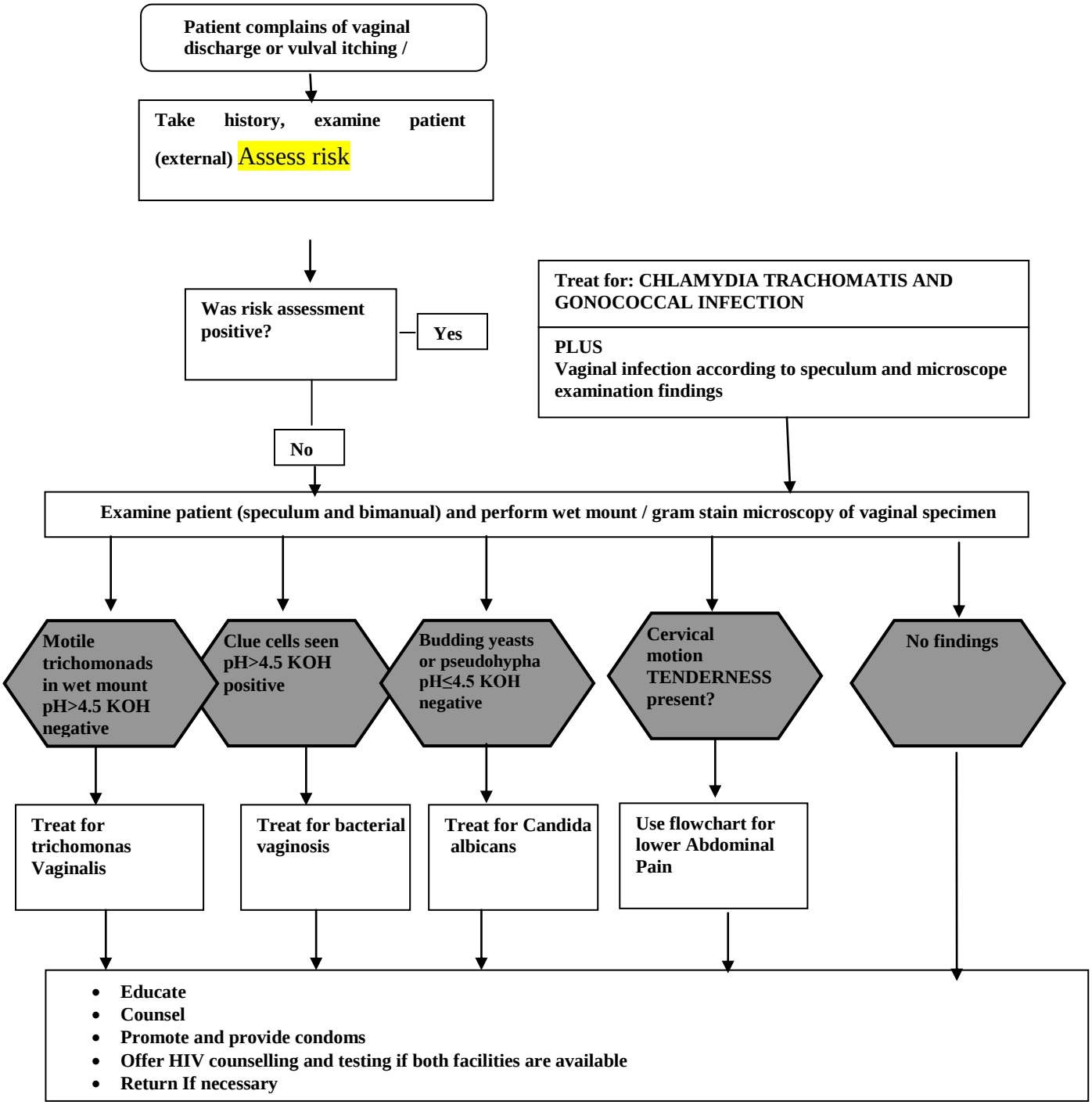
Figure 6 VAGINAL DISCHARGE



Risk factors need adaptation to local social, behavioural and epidemiological situation

Figure 7 VAGINAL DISCHARGE: Bimanual & Speculum

With or without MICROSCOPE



Notes:

1. KOH Test: 1 drop 10% KOH to reveal the amine odour (Fishy)

2.Wet amount: smear on slide with 1 drop of saline and view at 400%

Risk factors need adaptation to local social, behavioural and epidemiological situation.

2.6. LOWER ABDOMINAL PAIN

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 complaints of lower abdominal pain. Women with endometritis may present with complaints of vaginal discharge and / or bleeding and/ or uterine tenderness on pelvic examination. Symptoms suggestive of PID include abdominal pain, dyspareunia, vaginal discharge, and menometrorrhagia, and dysuria, pain associated with menses, fever, and sometimes nausea and vomiting.

PID is difficult to diagnose because clinical manifestations are varied. PID become 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. In general, clinicians should err on the side of over-diagnosing and treating suspected cases.

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

- Diagnosis is uncertain,
- Surgical emergencies such as appendicitis and ectopic pregnancy cannot 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 regime; or
- The patient has failed to respond to outpatient therapy. Many experts recommended that all patients with PID should be admitted to hospital for treatment.

Etiological agents include N. gonorrhoea, anaerobic bacteria (Bacteroides spp and Gram-positive cocci). Facultative Gram-negative rods and Mycoplasma hominis have also been implicated. At it is impossible to differentiate between these clinically, and a precise microbiological diagnosis is difficult, the treatment regimens must be effective against this broad range of pathogens. The regimens recommended below are based on this principle.

OUTPATEINT THERAPY

Recommended syndromic treatment

- In treating PID give treatment simultaneously for gonococcal, chlamydia and anaerobic bacterial infection. Certain recommended drugs are contraindicated during pregnancy and lactation: **DOXYCYCLINE, TETRACYCLINE**.
- **METRONIDAZOLE SHOULD BE AVOIDED IN THE FIRST TRIMISTER OF PREGNANCY**.

FOR PID SYNDROME

Ofloxacin 400 mg for 14 days

PLUS

- Doxycycline, 100 mg orally twice daily, or tetracycline, 500 mg orally, 4 times daily for 10 days

PLUS

- Metronidazole, 400-500 mg orally, twice daily for 14 days.

NOTE

- Patients taking metronidazole should be cautioned to avoid alcohol.
- Tetracyclines are contraindicated in pregnancy.

NOTE

This regimen should only be used in areas where trimethoprim/ sulfamethoxazole has been shown to be effective in the treatment of uncomplicated gonorrhoea. Patients taking metronidazole should be cautioned to avoid alcohol.

Adjuncts to therapy: removal of intrauterine device (IUD)

The IUD is a risk factor for the development of PID. Although the exact effect of removing an IUD on the response of acute salpingitis to antimicrobial therapy and on the risk of recurrent salpingitis is unknown, removal of IUD is recommended soon after antimicrobial therapy has been initiated. When an IUD is removed, contraceptive counselling is necessary.

FOLLOW-UP

Outpatients with PID should be followed up after 72 hours and admitted if their condition has not improved.

IN - PATIENT THERAPY

Recommended syndromic treatment:

1. Ceftriaxone 1 g intramuscular injection once daily

PLUS

- Doxycycline, 100 mg orally or by intravenous injection, twice daily, **OR** tetracycline, 500 mg orally 4 times daily.

PLUS

- Metronidazole, 400 mg orally or by intravenous injection twice daily, **OR** chloramphenicol, 500 mg orally or by intravenous injection, 4 times daily

2. Clindamycin, 900 mg by intravenous injection, every 8 hours.

PLUS

- Gentamicin, 1.5 mg/kg by intravenous injection every 8 hours.

3. Ciprofloxacin, 500 mg orally, twice daily or spectinomycin 1g by intramuscular injection, 4 times daily.

PLUS

- Doxycycline. 100mg orally or by intravenous injection, twice daily, or tetracycline, 500 mg orally, 4 times daily.

PLUS

- Metronidazole 400-500 mg orally or by intravenous injection, twice daily, or Chloramphenicol, 500 mg orally or by intravenous injection, 4 times daily

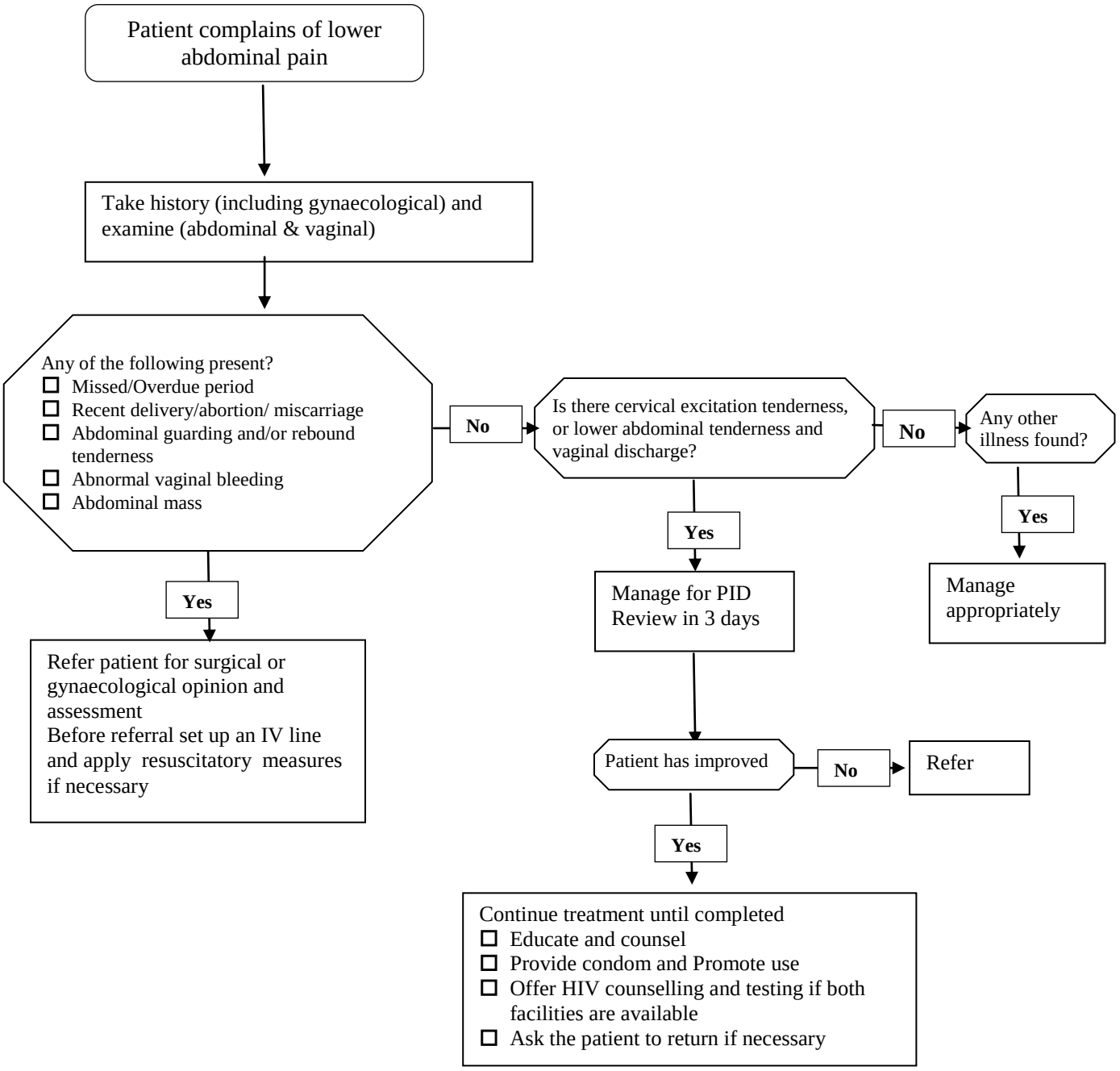
NOTE:

For all three regimens, therapy should be continued until at least 2 days after the patient has improved and should then be followed by:

- either Doxycycline, 100 mg orally, twice daily for 14 days,
- or tetracycline, 500 mg orally,4 times daily, for 14 days.

Patients taking Metronidazole should be cautioned to avoid alcohol.
Tetracycline are contraindicated in pregnancy

Figure 8 LOWER ABDOMINAL PAIN



2.7. NEONATAL CONJECTIVITIS

Neonatal conjunctivitis (ophthalmia neonatorum) can lead to blindness when caused by N. gonorrhoea. The most important sexually transmitted pathogens which cause ophthalmia neonatorum are N. gonorrhoea and C. trachomatis.

In developing countries N. gonorrhoea accounts for 20-75% of cases brought to medical attention. Other common causes are Staphylococcus aureus, streptococcus pneumoniae, Haemophilus spp, and pseudomonas spp. New-born 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.

AT A GLANCE: NEONATAL CONJUNCTIVITIS

Kanamycin 25 mg/kg (maximam75) IM as a single dose.
OR
Ceftriaxone 50mg/kg (maximum 125 mg) IM as a single dose.

Plus

Erythromycin syrup 50 mg/kg/day orally 6 hourly x14 days.
OR
Cotrimoxazole syrup (20 mg/kg/day Trimethoprim, 75 mg/kg/day Sulfamethoxazole) orally 12 hourly x14 days

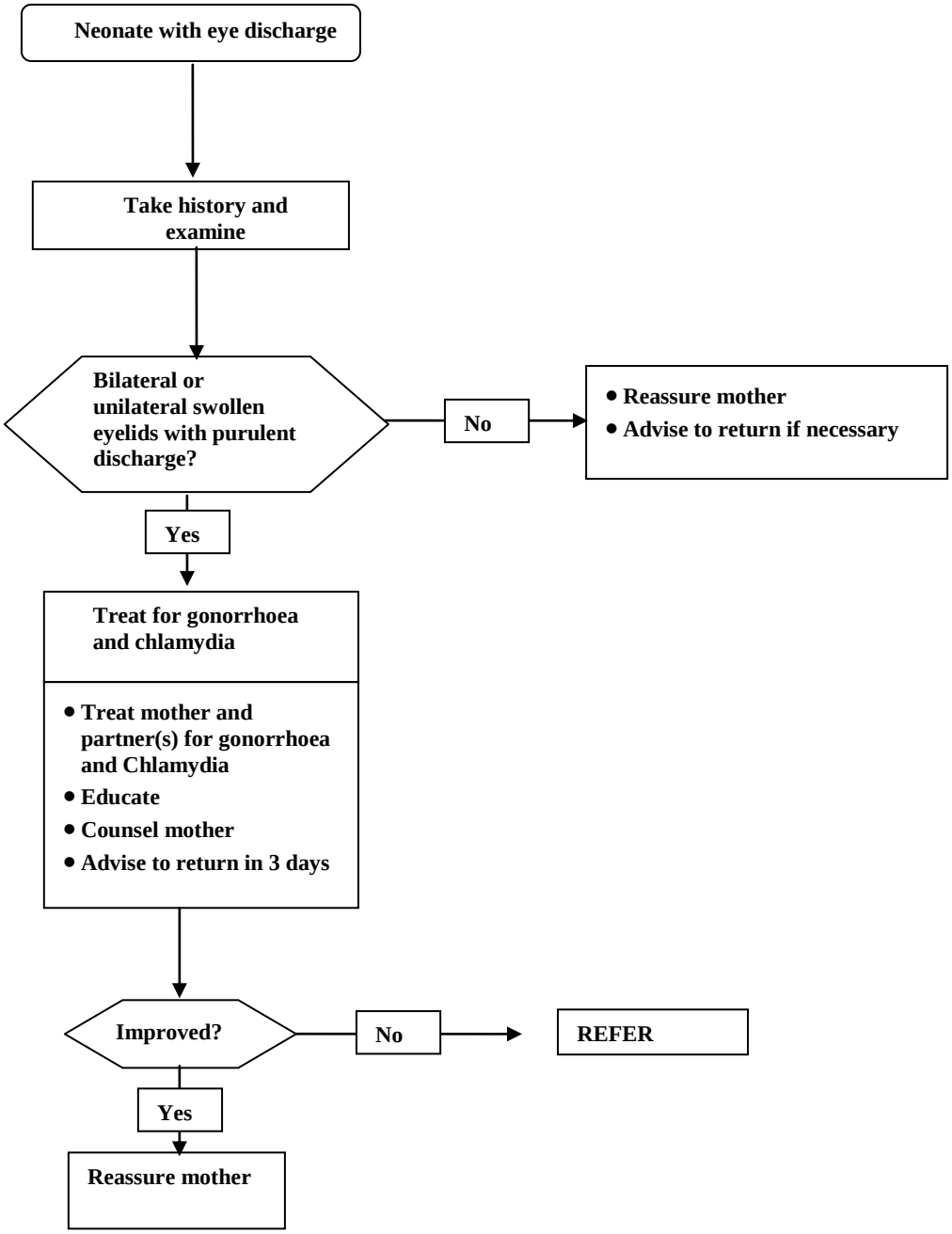
Plus

Cleaning of baby's eyes and other advises:
Clean baby's eyes with saline or clean water, using a clean swab for each eye.
Clean from inside to the outside edge of each eye.

Plus

Erythromycin ointment in the eyes of the new born baby

Figure 9 NEONATAL CONJUNCTIVITIS



2.8. GENITAL HERPES INFECTIONS

The primary cause of genital herpes is the herpes simplex virus type 2 (HSV2) infections. Is the most common cause of GUD worldwide? The major public health importance of HSV2 relates to its potential role in facilitating HIV transmission.

There is no known cure for genital herpes, but the course of symptoms can be modified if systemic therapy with acyclovir, or its analogues, is started as soon as possible following the onset of symptoms.

Treatment can be expected to reduce the formation of new lesions, the duration of pain, the time required for healing, and viral shedding. However, it does not appear to influence the natural history of recurrent disease. Topical therapy with acyclovir produces only minimal shortening of the duration of symptomatic episodes and is not recommended.

Recurrent infections most patients with a first episode of genital herpes infection will have recurrent episodes of genital lesions. Episodic or suppressive antiviral therapy will shorten the duration of genital lesions.

AT A GLANCE: TREATMENT OPTIONS FOR GENITAL HERPES

Recommended regimen for first clinical episode :

- Acyclovir, 200 mg orally, 5 times daily for 7 days.

OR

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

OR

- Valaciclovir, 1 g orally, twice daily for 7 days.

OR

- Famciclovir, 250 mg orally, 3 times daily for 7 days.

AT A GLANCE: TREATMENT OPTIONS FOR GENITAL HERPES

Recommended regimen for recurrent infection :

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

OR

Acyclovir, 400 mg orally, 3 times daily for 5 days.

OR

Acyclovir, 800 mg orally, twice daily for 5 days.

OR

Valaciclovir, 500 mg orally, twice daily for 5 days.

OR

Valaciclovir, 1000 mg orally, once daily for 5 days.

OR

Famciclovir, 125 mg orally, twice daily for 5 days.

AT A GLANCE: TREATMENT OPTIONS FOR GENITAL HERPES

Recommended regimen for suppressive therapy:

Acyclovir, 400 mg orally, twice daily.

OR

Valaciclovir, 500 mg orally, once daily.

OR

Valaciclovir, 1000 mg orally, once daily.

OR

Famciclovir, 250 mg orally, twice daily.

Recommended regimen for severe disease :

Acyclovir, 5–10 mg/kg IV, every 8 hours for 5–7 days or until clinical resolution is attained.

AT A GLANCE: TREATMENT OPTIONS FOR GENITAL HERPES

Recommended regimen in severe herpes simplex lesions with co-infection with HIV:

Acyclovir, 400 mg orally, 3–5 times daily until clinical resolution is attained

Recommended regimen for neonates :

Acyclovir, 10 mg/kg intravenously, 3 times a day for 10–21 days.

2.9. VENEREAL (GENITAL) WARTS

The human papilloma virus (HPV) is the causative agent for this common STI. Genital warts are painless and do not lead to serious complications, except where they cause obstruction, especially in pregnant women. The removal of the lesion does not mean that the infection has been cured. No treatment is completely satisfactory. In most clinical situations podophyllin, podophyllotoxin or trichloroacetic acid (TCA) is used to treat external genital and perianal warts. Cryotherapy with liquid nitrogen, solid carbon dioxide or cryoprobe is preferred by many physicians when available. Cryotherapy is non-toxic, does not require anaesthesia and, if carried out properly, does not result in scarring.

Sexual partner(s) should be examined for evidence of warts.

Patients with anogenital warts should be made aware that they are contagious to sexual partners. The use of condoms is recommended to help reduce transmission.

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.

However, a high percentage of smears in adolescents may appear, incorrectly, to be abnormal.

The available treatments for visible anogenital warts are either: patient-applied (podophyllotoxin or imiquimod), removing the need for frequent clinic visits; or provider-administered. Podophyllotoxin 0.5% solution may be applied with a cotton swab.

The gel can be applied with a finger.

AT A GLANCE: Recommended regimen:

Cryotherapy with liquid nitrogen

OR

Podophyllin 10–25%. Allow to dry before removing speculum

OR

TCA 80–90%

CERVICAL WARTS:

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

Most experts advise against the use of podophyllin or TCA for cervical warts.

AT A GLANCE: Recommended regimen:

Recommendations for treatment of cervical warts :

management should include consultation with an expert

pap smear

No TCA or podophyllin

MEATAL AND URETHRAL WARTS :

Recommended treatments:

cryotherapy

OR

podophyllin 10–25%

2. 10 .SYPHILIS

CLINICAL PRESENTATION SUMMARY

Syphilis is a systemic disease from the outset and is caused by the spirochaete, Treponema pallidum (T. pallidum).
The infection can be classified as congenital (transmitted from mother to child in utero) or acquired (through sex or blood transfusion).
Acquired syphilis is divided into early and late syphilis:

1-Early syphilis comprises the primary, secondary and early latent stages.
2- Late syphilis refers to late latent syphilis, gummatous, neurological and cardiovascular syphilis.
Primary syphilis is characterised by an ulcer or chancre at the site of infection or inoculation. Secondary syphilis manifestations include a skin rash, condylomata lata, mucocutaneous lesions and generalised lymphadenopathy.
Latent syphilis has no clinical manifestations,early latent syphilis is infection of less than two years duration. An infection of more than two years duration without clinical evidence of treponemal infection is referred to as late latent syphilis.

TREATMENT REGIMEN FOR SYPHILIS:

EARLY SYPHILIS : (primary, secondary, or latent syphilis of not more than two years' duration)

Recommended regimen :

benzathine benzylpenicillin,8 2.4 million IU by intramuscular injection, at a single session. Because of the volume involved, this dose is usually given as two injections at separate sites

Alternative regimen :

procaine benzylpenicillin,9 1.2 million IU by intramuscular injection, daily for 10 consecutive days

Alternative regimen for penicillin-allergic non-pregnant patients:

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

OR

Tetracycline, 500 mg orally, 4 times daily for 14 days

Alternative regimen for penicillin-allergic pregnant patients:

erythromycin, 500 mg orally, 4 times daily for 14 days

LATE LATENT SYPHILIS:

Infection of more than two years' duration without evidence of treponemal infection.

Recommended regimen :
benzathine benzylpenicillin, 2.4 million IU by intramuscular injection, once weekly for 3 consecutive weeks
Alternative regimen :
procaine benzylpenicillin, 1.2 million IU by intramuscular injection, once daily for 20 consecutive days

Alternative regimen for penicillin-allergic non-pregnant patients:

doxycycline, 100 mg orally, twice daily for 30 days.
OR
tetracycline, 500 mg orally, 4 times daily for 30 days
Alternative regimen for penicillin-allergic pregnant patients:

erythromycin, 500 mg orally, 4 times daily for 30 days

NEUROSYPHILIS:

Recommended regimen :
Aqueous benzylpenicillin,10 12–24 million IU by intravenous injection, administered daily in doses of 2–4 million IU, every 4 hours for 14 days .

Alternative regimen :
procaine benzylpenicillin, 1.2 million IU by intramuscular injection, once daily, and probenecid, 500 mg orally, 4 times daily, both for 10–14 days

This regimen should be used only for patients whose outpatient compliance can be assured.

Alternative regimen for penicillin-allergic non-pregnant patients:

Doxycycline, 200 mg orally, twice daily for 30 days .
OR
Tetracycline, 500 mg orally, 4 times daily for 30 days .

third-generation cephalosporins may be useful in the treatment of neurosyphilis.

CONGENITAL SYPHILIS:

A-Early congenital syphilis (up to 2 years of age) and Infants with abnormal CSF:

Recommended regimen :

Aqueous benzylpenicillin 100 000–150 000 IU/kg/day administered as 50 000 IU/kg/dose IV every 12 hours, during the first 7 days of life and every 8 hours thereafter for a total of 10 days .
OR

Procaine benzylpenicillin, 50 000 IU/kg by intramuscular injection, as a single daily dose for 10 days .

Note:
Antimicrobials other than penicillin (e.g. erythromycin) are not recommended for congenital syphilis except in cases of allergy to penicillin. Tetracyclines should not be used in young children.

B- Congenital syphilis of 2 or more years:

Recommended regimen:

Aqueous benzylpenicillin, 200 000–300 000 IU/kg/day by intravenous or intramuscular injection, administered as 50 000 IU/kg/dose every 4–6 hours for 10–14 days.

Alternative regimen for penicillin-allergic patients, after the first month of life:

erythromycin, 7.5–12.5 mg/kg orally, 4 times daily for 30 days

Note:

Syphilis test should be done for any STIs patients (regardless syndrome), pregnant women and key population.

Annex 1:

History Taking & Examination of Patient

I. Interviewing STI Patients:

History taking and examination are only two of the steps that take place in atypical meeting between the provider and the STI patient. The other steps include diagnosis and treatment, education and counselling and partner management will be explored later on.

The main aims of interviewing the STIs patients include:

- To make diagnosis which is accurate based on the history and examination and efficient given the time available for the task.
- To establish the patient's risk of contracting or transmitting STIs.
- To find out about the partners who may have been infected.

To meet the three aims of the interview the primary task of the health care provider is to establish a good relationship with the STIs patients.

II. STI Information Gathering:

To meet these three aims when taking history of an STI patient we need to gather information about four areas:

1. General details about the patient.
2. The patient's present illness.
3. Medical history.
4. Sexual history.

- **History taking information**:

1. General details:

- Age.
- Number of children.
- Locality or address.
- Employment.

2. Present illness:

- Present complaints and duration.

Men:

- If an inguinal bubo:

Is it painful? Associated with genital ulcer? Swellings elsewhere in the body?

- If a urethral discharge:

pain while passing urine? frequency? Risk assessment positive?

- If a scrotal swelling:

history of trauma?

Women:

- If a vaginal discharge:

pain while passing urine? frequency? Risk assessment positive?

- If lower abdominal pain:

vaginal bleeding or discharge? painful or difficult pregnancy or childbirth? painful, difficult, or irregular menstruation? missed or overdue period?

Men & women:

- If a genital ulcer:

Is it painful? Recurrent? Appearance? spontaneous onset? Other symptoms such as itching or discomfort.

3. 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 Drug resistance.

4. Sexual history:

Currently active sexually? New partner in the last three months? Risk assessment.

III. Physical examination:

The purpose of a physical examination is to confirm any STI symptoms the patient has described by checking for signs of STI.

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 during examination. Thus, it is important that the health care provider do his best to prepare the patient for examination. The following are simple ways to be adopted by the provider to alleviate the patient's anxiety and embarrassment:

- Privacy is essential.
- Treat the patient with respect and behave in a calm, friendly and professional manner as during the rest of the interview.
- Avoid showing your embarrassment or shyness.
- If the service provider is male, offer female patients to have the opportunity to have someone else present if they prefer.
- Explain to reluctant patients why you need to examine them.

- **Examining male patients for STI syndromes**:
  1. Ask the patient to stand up and lower his pants so that he is stripped from the chest down to the knees. It may be possible to examine him while he is standing up, though you will sometimes find it easier if the patient lies down (more comfortable for the patient if he is lying down)
  2. Abdominal examination.
  3. Palpate the inguinal region in order to detect the presence or absence of enlarged lymph nodes or buboes.
  4. Palpate the scrotum, feeling for individual parts of the anatomy: testes- spermatic cord and epididymis.
  5. Examine the penis, noting any rashes or sores and the urethral meatus for any discharge.
  6. If you cannot see an obvious urethral discharge, ask the patient to milk the urethra in order to express any discharge.
  7. Record the presence or absence of: buboes, ulcers, urethral discharge noting the colour and amount.

- **Examining female patients for STI syndromes**:
  1. Ask the patient to remove her clothing from the chest down, and then to lie on the couch. In order to save her embarrassment, use a sheet to cover the parts of the body that you are not examining.
  2. Ask the patient to bend her knees and separate her legs, then examine the vulva, anus and perineum.
  3. Palpate the inguinal region in order to detect the presence or absence of enlarged lymph nodes and buboes.

4. Palpate the abdomen for pelvic masses and tenderness, taking great care not to hurt the patient.
5. Record the presence or absence of:
    - Buboes.
    - Ulcers.
    - Vaginal discharge, noting type, colour and discharge.

Gloves are required if you wish to conduct a vaginal or bimanual examination.

IV. Educating the patient:

The aims of educating a patient with STI are to help the patient resolve the current infection and prevent the future ones. Once the diagnosis is made the provider needs to do the following:

- To educate the patient on a number of issues.
- To motivate the patient to adopt behaviours those resolves the current infection and prevent future ones.
- To provide the patient with emotional support.

The interviewing skills are also essential for educating the patients successfully

Why is patient education important?

- Clinic-based education is efficient because it reaches people where they are already are.
- The clinic 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 once they or someone they know, are faced with that disease. Therefore, clinics offering education do so at the right moment for the patient to learn.
- Treatment is more effective if patients understand their illness and why they should comply with treatment.
- STIs can recur; preventing them requires sustained behaviour change. While patients might be willing to comply with treatment for a current infection, they often need education, motivation and emotional support to adopt practices that will prevent a recurrence of STI.
- By increasing the frequency of patient compliance with treatment and behaviour change, education also helps to prevent future infection by either STI or HIV.

Educate on what?

The STI patients need to be educated on the following main issues:

1. The STI has its implications, treatment and the importance of complying with treatment.
2. The patient's risk level.
3. The need to change sexual behaviour.
4. Any barriers the patient may have to changing risky behaviour.
5. What changes the patient can and will make in their sexual behaviour.
6. The need to treat sexual partners.

I. Explaining the STI and its treatment:

- Explain the nature of STI treatment mentioning the name of the drug, the dose, the duration of treatment.

- Advise on the common side-effects of the treatment and the actions to be taken by the patient if experienced.
- Encourage the patient to comply with the treatment.

II. The patient's risk level:

- The provider needs to assess the patient's risk level and then to explain it to the patient. Assessing the patient's risk level:
- The provider may be able to assess the patient's risk level from the history taking and the gathered information as shown above.
- The following are possible issues that may help to confirm the risk:

a. Personal sexual behaviour:

1. Number of sexual partners in the past year.
2. Sex with a new or different partner in the last three months.
3. Any other STI in the past year.

b. Other personal risk factors:

1. HIV infection?
2. Use of skin piercing instruments such as:
   - Needles (injections, tattoos)
   - Scarification or body piercing tools.
   - Circumcision knives.
3. Has the patient ever had a blood transfusion? When?
4. For young children risk of perinatal transmission of STI/HIV means that the provider must question the parents about their possible infections for example: gonorrhoea, syphilis, and chlamydia, HIV.

c.Partner (s) sexual behaviour:

Does the patient's partner(s)?

- Have sex with other partners?
- Also have STI?
- Have HIV?
- Inject drugs?
- If male, have sex with other men?

d. Personal drug use:

- Sharing needles with others.
- Use of alcohol or other drugs if so what? before or after sex?

III. Patient's protective behaviour:

1. What does the patient do to protect him/herself from STI/HIV?
2. Use of condoms? When and how? How often? With whom?
3. What kinds of low-risk or safe sexual activities the patient practices? How often? With whom? Why?

How to Educate?

It is not enough to inform the patient about the STI, its nature, and treatment and urge him/her to comply with all these suggestions. So, information and advice is not enough. We need to educate the patient properly; in fact, the success of the syndromic approach is greatly dependant on proper education of the STI patients. Education is part of a process of enabling someone to make choices and decisions.

First it is important to use communication skills which are basic to facilitate asking questions or help deal emotions. Additional skills needed to motivate the patient to change include:

- Explanation and instruction.
- Modelling.
- Reinforcing strengths you see in the patient.
- Helping the patient will do or say.
- Rehearsing what the patient will do or say.
- Confirming the patient's decisions.

Explanation & instruction:
Instruction:
Telling patients what to do or how to do something, such as use a condom or take medication for example: 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 an infection passed to you during sexual intercourse. The health care provider should find out if he is communicating effectively with the patient. The best way is to provide the patient with time to ask questions. If the patient seems anxious or confused, stop and check, and then ask the patient to summarize what you have said. The useful approach to explanation can be summarized in the following:

- Ask for the patient's ideas.
- Discuss the patient's ideas.
- Explain the subject.
- Check the patient's understanding and feelings.

Modelling
This skill enables the provider to present examples of how the recommended behaviour or treatment has been successfully in other cases. Modelling also helps to stress positive experience and the health care provider should focus on positive outcome of changing behaviour.

Reinforcing strengths:
This means pointing out a strength or positive attribute in the patient, something that will help him/her recover or prevent the recurrence of STI.

Exploring choices:
The provider points out alternative choices that the patient can take towards achieving the goals of curing the current STI or preventing another one in the future. Thus, the health care provider helps the STI patient to decide which is best.

Rehearsing decisions:
When the provider feels sure that the patient has made a decision on the appropriate safe behaviour, it is important to ask him/her to work through the steps that will put the decision into practice.

Confirming decisions:
This is a very useful way of concluding the interview. Asking the patient to confirm a decision helps him/her to feel motivated on leaving the centre and more likely to make a real change in sexual behaviour.

V. Using condoms to stay cured:

Using condoms help people to have safer sex by preventing contact between vaginal fluids and semen or blood. Using condoms is especially important if your patient has sex with more than one partner or with one partner who has other sexual partners. However, it is not enough to know that condoms are important. Patients must also know how to use them properly.

Many people resist the idea of using condoms, not only because of the embarrassment or cost of buying them. In Sudan, still condoms are not culturally accepted and some people think that condoms spoil sex or they not effective.

In practice it is important that the health care provider will use all the communication and education skills while discussing this issue with STI patients.

Demonstrating the use of condoms:
It is important first to demonstrate its use and then ask the patient to practice the same method, helping him or her to get it right. In the demonstration the following points are important to consider:

Show the expiry date or manufacture date and explain that condom should not be out of date, sticky, smelly 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 in 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 to dispose of it safely, the patient should tie the top and dispose of it safely.
- Oil or oil-based lubricants such as petroleum jelly should not be used as it can lead to damage of the latex condoms.
- Condoms should be used twice or reused.

V1: Partner management:

Partner management helps to break the cycle of STI transmission. Its main features include:

a) Treatment of all a patient's sexual partners.
b) For the same STI as the patient
c) Even if the partners have no signs of STI.

It is assumed that for two months before the patient came for treatment, all of the sexual partners during the period have been infected. 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.

Two main approaches for 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:

Patient referral

In this option it is the patient who takes responsibility for contacting partners and asking them to come for treatment. For some patients the issue of asking them to inform their sexual is uncomfortable and might cause damage to the individuals concerned. Many patients might feel unwilling or unable to discuss the STI with partners. So the health care provider's aim is to help the patient to 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 him or her to attend without specifying why.
- By giving each partner, a card asking him or her to attend the centre.

Patient's referral cards can help in identifying the necessary treatment for anyone who is sent 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.

The success of the patient referral depends on the skills of the provider in communicating and educating the STI patient in order to convince the partners to come for treatment. 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).

Provider referral:

This is where a member of the health team contacts the partners of a patient with STI. The provider asks the partner to attend the centre for treatment. Provider referral needs special outreach staff who have been especially trained in contacting partners. It is not a viable option for most health centres. However, it might be possible to offer provider referral as a follow-up to patient referral in these two circumstances:

- When the patient refuses for whatever reason to refer partners.
- When a patient has agreed to refer partners but they have not since come for treatment.

Both approaches are effective if properly adopted and for practical reasons the patient's referral is considered as the option of choice in most of the STI management centres.

Treating the partners:

The aim of partner management is to treat any partner for the same STI as the original patient. Examining the partner is not essential although the provider and the original patient may prefer to check for other signs. Otherwise we deal with the partners of the

patients in exactly the same way as the original patient taking history, educating them and treating them and managing their partners.

A chart showing that the partner is treated for the same STI as the original patient:

Syndrome of the original patient	Treatment of partner
Urethral discharge	Treat partner for gonorrhoea & chlamydia
Genital ulcer	Treat partner for syphilis & chancroid
Vaginal discharge: Patient treated for vaginitis & cervicitis. Patient treated for vaginitis only	Treat partner for gonorrhoea & chlamydia. Not necessary for the partner to be treated unless the discharge is recurrent.
Pelvic inflammatory disease	Treat partner for gonorrhoea and chlamydia
Scrotal swelling	Treat partner for gonorrhoea and chlamydia
Inguinal bubo	Treat partner for lymphogranuloma venereum
Neonatal conjunctivitis	Treat both parents for gonorrhoea and chlamydia

Annex 2:

Communication

Non-verbal communication skills:

The key to effective non-verbal behaviour is to treat the patient with respect and give her/him full attention:

- Provide the patient with privacy. Clearly, privacy and confidentiality are essential so the interview must take place somewhere quiet and confidential.
- Establish eye contact with the patient. The provider has to look directly to the patient and this will help watching key feelings that will help to respond appropriately.
- Listen carefully to what the patient says: The provider has to show that he is listening to the patient by leaning forward slightly towards the patient. Nodding the head or commenting occasionally to encourage the patient to talk freely may accompany this.
- The provider has to sit if the patient is sitting and stand when the patient stands.
- These points are very simple and they can make the difference between gaining or losing the patient's confidence.

The verbal communication skills in history taking:

Information to be gathered by the health care providers about the STIs patients includes medical history and symptoms, social and sexual history and risk detection and partners. It has to be emphasized that all such information has to be gathered within a short time. The following key rules are useful for questioning the STIs patients:

- Always phrase the questions politely and respectfully.
- Use the words that the patient understands.
- Make the questions specific.
- Ask one question at a time.
- Keep the questions free of moral judgments.
- Avoid leading questions that asking the patient to agree with you: let people answer in their own words.
- Ask the patient permission to question them about their STI and their sexual behaviour.

Open & close-ended questions:

When the health care provider interviews a patient with STI he can use both types of questions. The open-ended questions allow the patient to explain what is wrong and he feels in his own words while the close-ended questions allow the patient to answer a precise question in the provider's words. It is advisable to use both types of questions and usually better to start the interview with open-ended questions. As generally much more information can be gathered from one open-ended question than from one close-ended question.

Other verbal skills:

There are other additional useful skills when interviewing patients with STIs. There are six skills:

- Facilitation.

- Summarizing & checking.
- Reassurance.
- Direction.
- Empathy.
- Partnership.

1. Facilitation:
Nodding the head and raising the eyebrows are two examples of non-verbal facilitation. The service provider can use words, phrases and other sounds to encourage the patient to continue speaking.

2. Direction:
This is a useful approach when a patient is confused and does not know where to begin, or when a patient is talking quickly and mixing up issues of concern.

3. Summarizing and checking:
Summarizing and checking allow the provider to ensure that he understood the patient correctly. The patient is also able to correct any misunderstanding.

4. Empathy:
This may be the most important skill of all when dealing with patient's feelings. Upon noticing that a patient is tense or anxious, for example the provider can express his empathy by commenting on what you have noticed. When the provider showed empathy, the patient would be encouraged to express his/her fears and establish open communication

5. Reassurance:
Reassurance is important to show that the provider has accepted the patient's feelings and that the problem need not last forever.

6. Partnership:
This skill enables the provider to offer the patient a commitment with him personally or with the other health team members.

The key to interviewing patients who may have an STI is to use all six skills most of the time. This is expected to improve the quality of the interview as essential component of the overall syndrome approach.