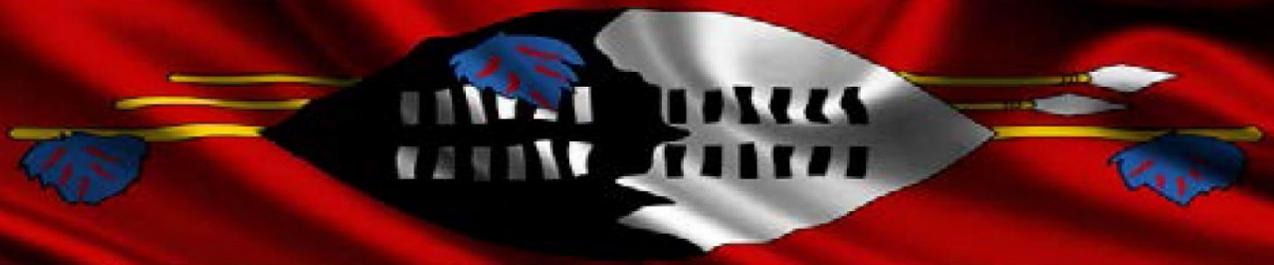




Ministry of Health

ESwatini National Sexually Transmitted Infections Guidelines



August 2018



World Health
Organization



Ministry of Health

Eswatini National Sexually Transmitted Infections Guidelines

Towards Ending STIs

FOREWORD

Globally, 357 million new cases of these four (chlamydia, gonorrhoea, syphilis and trichomoniasis) curable STI's are acquired annually mostly by people aged 15–49 years. Sexually transmitted infections (STI's) remain a priority in HIV response. Some viral STI's, like human papillomavirus (HPV), HSV2 and HIV, are still incurable and can be deadly, while some bacterial STI's like chlamydia, gonorrhoea, syphilis and chancroid are curable if detected and treated.

A strong STI response will not only alleviate the burden of STI's but will also have a beneficial impact on other health issues, on adolescent. The STI response needs to be integrated with different health programmes and needs to be applied across sectors, including through school-based health education.

The Ministry of Health as mandated by the Government of Eswatini prioritize STI's, because of the correlation with other illnesses including HIV. STI's play a major role in new HIV infections if not early diagnosed and managed properly. It is essential, therefore, that STI's are properly managed at the first point of contact with health services.

This guideline for management of sexually transmitted infections in the Kingdom of Eswatini is building upon the vision of zero new infections, zero STI-related complications and deaths, and zero discrimination and it aims at ending the STI epidemic as a major public health concern. To address the limitation of etiological and presumptive diagnosis, the syndromic management approach to STI's will be emphasized in the implementation of this guideline in all health facilities.

In line with the 2030 global targets, the guideline aims at 90% reduction of *T. pallidum* incidence; 90% reduction in *N. gonorrhoeae* incidence; ≤ 50 cases of congenital syphilis per 100 000 live births; Sustain 90% national coverage and at least 80% in every region in the country.



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BACKGROUND

STIs affect both men and women, and almost half of all STIs occur in people younger than 25 years old. Exposure to an STI can occur any time you have sexual contact with anyone that involves the genitals, the mouth (oral), or the rectum (anal). Exposure to STIs is more likely if you have more than one sex partner or do not use condoms. Some STIs can be Transmitted through other routes, such as by sharing needles or needle pricks, during pregnancy, delivery and breastfeeding. Others may be asymptomatic but still infectious.

Sexually transmitted infections (STIs) remain a priority in the HIV response

They constitute a major health and economic burden worldwide, and account for a substantial number of economic losses that are sustained in developing nations due to various morbidities. Globally, an estimated 357 million new cases of curable STIs occur each year, with over 56 million occurring in sub-Saharan Africa.

The factors that determine healthy sexual behaviour are complex and context-specific. In Eswatini, behaviours that pose high risks for STI and HIV transmission include; Low levels of knowledge about STIs and HIV; Inconsistent condom use; Multiple sexual partners; Gender disparities leading to unequal power in sexual decision-making and Inappropriate health seeking behaviour for STIs.

Effective management is one of the cornerstones of STI control as it prevents the development of complications and sequel. It decreases the spread of these diseases in the community and offers a unique opportunity for targeted education about HIV prevention and other STI's. Appropriate treatment of STI at the first contact between patient and health care provider is therefore an important public health measure.

The use of standardized national protocols is strongly recommended to ensure adequate treatment at all levels of the health care delivery. All health facilities that provide STI services should implement the STI service package as outlined in this guideline.

The purpose of this guideline is to standardize and recommend harmonized provision of comprehensive, quality and client centered STI prevention and treatment services. The goal is to promote service uptake resulting in improved client outcomes and elimination of STI infection including related complications.

Rationale for the STIs guidelines

There are several challenges to providing effective STI services to the people who need them. Many people with STIs do not seek treatment because they are asymptomatic or have mild symptoms and do not realize that anything is wrong. Others who have symptoms due to stigma associated with STI's may prefer self-medication or seek treatment at pharmacies or from traditional healers. Even those who come to a clinic may not be properly adhere or complete treatment course. In the end, only a small proportion of people with an STI may be cured and avoid reinfection. This Guideline aims to help increase the proportion of STI patients that are treated and cured through assisting health care providers to:

- 
- Raise awareness in the community about STIs and how they can be prevented—especially among populations who may be at high risk.
 - Promote safer sexual practices, including delaying sexual onset, consistent condom use and having one or fewer partners.
 - Promote early use of clinic services to cure STIs and prevent complications. Teach people how to recognize symptoms and when to seek care.
 - Screening for asymptomatic infection for all sexually active clients.
 - Manage symptomatic STIs effectively. Follow syndromic management guidelines for STI case management.
 - Counsel patients on staying uninfected after treatment. Encourage them to comply with treatment, assist with partner notification and treatment, and reinforce prevention.

A combined strategy of effective community interventions and improved clinical services can have a large impact on STIs and their complications. Better clinical services increase the number of people who are cured. More effective prevention in the community, especially when it reaches those at highest risk, can reduce the overall STI problem. The combination of strategies benefits everyone.

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ABBREVIATIONS

AIDS	Acquired immuno deficiency syndrome
ART	Antiretro viral therapy
BCC	Behavioral change communication
Bid	Twice a day
BV	Bacterial vaginosis
FTA	Flouriscent Treponema antibody
GUD	Genital ulcer disease
HIV	Human immunodeficiency virus
HBV	Hepatitis B virus
HPV	Human papilloma virus
HSV	Herpes simplex virus
HTS	HIV testing Services
IM	Intra-muscular
IUD	Intra-uterine disposal
IV	Intra-venous
LGV	Lymphogranuloma venereal
PID	Pelvic inflammatory disease
Po	Orally
Qid	Four times a day
RPR	Rapid plasma reagent
STAT	Immediate dose
STI	Sexually transmitted diseases
TPHA	Treponema pallidum heamagglutination assay
TV	Trichomonas vaginalis
Tid/Tds	Three times a day
IU	International Unit
UDS	Urethral discharge syndrome
VCT	Voluntary counseling and testing
VDS	Vaginal discharge syndrome
VIA	Visual inspection of the cervix with acetic acid

1.0 NATIONAL STI CASE MANAGEMENT

1.1 Rational of national management of STI case

Effective management is one of the cornerstones of STI control. It prevents the development of complications, sequela and decreases the spread of these diseases in the community. Offers a unique opportunity for targeted education about HIV prevention and other STI's. Appropriate treatment of STI at the first contact between patient and health care provider is therefore an important public health measure.

The use of standardized national protocols is strongly recommended in order to ensure adequate treatment at all levels of the health care system delivery. Standardized treatment facilitates training and supervision of health providers and, this in turn delays the development of antimicrobial resistance in sexually transmitted infections (STI).

Etiological diagnosis: Ideally, the diagnosis of an STI is made by knowing exactly what organism is present by performing laboratory tests. Unfortunately, this method of STI diagnosis is often expensive and requires sophisticated equipment and skilled personnel to carry out. This places constraints on time, resources, costs and access to treatment for the patients. In addition, test results may not be available during the consultation, thus requiring patients to return in one or two days. This is not feasible in many settings. The risk of developing complications is high and the period of infectivity is prolonged by this delay in therapy.

Clinical diagnosis: This involves using clinical experience to match identified symptoms and signs to a specific STI. However, even experienced specialists often misdiagnose STI's when they rely only on the clinical experience. In South Africa, a study of 100 men and 100 women identified only one third of cases of chancroid or syphilis in men, one half of the cases in women and less than 10% of the mixed infections (SADC: 2010).

1.2 Clinical Presentation

Genital Ulcer Syndrome

1. Chancroid: raised rough edges, beefy.
2. Herpes Simplex Virus (HSV): itchy, burning and tingling sensation, painful blisters, ulcer.
3. Syphilis:
 - Primary stage firm: painless lesions (chancre) and self-limiting, may last up to 3 weeks.
 - Secondary stage: non itchy pigmented lesions can show up on the palms of your hands and soles of your feet, all over your body, or in just a few places. You may also have mucous membrane lesions.
 - Latent/late stage: gumma, and may affect the central nervous system.

Genital Discharge syndrome

1. Gonorrhoea:
 - yellowish discharge
 - foul odour,
 - pain and frequency on micturition
 - dyspareunia.
2. Chlamydia:
 - clear or cloudy discharge

- dysuria
 - early in the morning the opening of the penis is often red and stuck together with dried secretions
 - urgency in micturition dyspareunia
3. Pelvic Inflammatory Disease:
- Lower abdominal pain
 - foul discharge
 - fever >38 degrees Celsius
 - dyspareunia.
4. Trichomoniasis:
- greenish yellowish frothy discharge accompanied by a fishy foul smell.
 - dysuria,
 - dyspareunia,
 - frequency on micturition
5. Candidiasis:
- Curd-like discharge
 - itchiness
 - erythematous mucous membrane on affected area.
6. Bacterial Vaginosis:
- erythematous mucous membrane
 - greyish white discharge with unpleasant fishy odour.

Other STI's:

1. *Human Papilloma virus (HPV) warts*: raised or papillary skin colored growth with a cauliflower like appearance, soft to the touch usually painless but may itch.
2. Neonatal Conjunctivitis: thick, often sticky, muco-purulent discharge, hyperaemia
3. Syphilitic Warts: flat, extensive clustered lesions, mostly on moist areas.
4. Inguinal bubo: unilateral or bilateral swelling in the inguinal region, its fluctuant, painful.
5. Pediculosis pubis: whitish nits on the base of hairs accompanied by itchiness.
6. Genital Scabies: burrows, itchiness erythematous lesions
7. Hepatitis B: Many people have no symptoms during the initial infection. Some develop a rapid onset of sickness with vomiting, yellowish skin, feeling tired, dark urine and abdominal pain.

NB: Screen all STI clients

1.3 Syndromic Approach:

A syndrome is a collection of signs and symptoms. The numerous and different STI pathogens produce a number of syndromes, hence a syndromic diagnosis is made when the patient's signs and symptoms are matched to a particular STI syndrome. Syndromic approach offers treatment for more than one pathogen so that antimicrobial therapy is effective against all the pathogens that commonly cause the syndrome.

This approach to diagnosis and treatment reduces costs and increases access to treatment. This provides a more practical and cost-effective intervention for reaching the majority of patients with STI's, especially in resource-limited settings. Syndromic STI management has some advantages which include the following:

- Improved diagnosis

- Can be administered by a wide spectrum of primary health care workers, including clinical officers, physician assistants, nurses and midwives
- Allows treatment of symptomatic patient at one clinic visit
- Is cheap, simple and cost-effective
- Treatment for mixed infections can occur.

Challenges

- Over diagnosis and over treatment may result in increased drug cost
- Possible side effects of multiple drugs, drug interactions, alterations in vaginal flora, and a potential for increased drug resistance.
- The approach is not useful for detecting infections among asymptomatic individuals.
- Similarly, the syndromic approach for vaginal discharge is poorly predictive of the presence of cervical chlamydia and/or gonococcal infections.

The Ministry of Health recommends that all patients presenting with STI's are treated using the syndromic management approach

2.0 Essential Components

For individuals seeking evaluation for STI, appropriate care consists of the following:

- History taking: demographic information including behavioral and medical risk assessment.
- Physical examination: particularly of genital, anal and oral area,
- Establishment of a syndromic diagnosis
- Curative therapy, using the most effective antimicrobials for the pathogen, at the first point of call by the patient
- Providing a Health Promotion Package
- Clinical follow-up and referral where necessary.

2.1 History Taking and Assessing STI and HIV Risk

Gathering Patient Information

Information gathering strategies:

- Explain that all information will be kept confidential
- Develop a rapport so the patient can feel relaxed and comfortable
- Explore the patient's concerns by practicing active listening
- Use a dynamic discussion between you and your patient as a means of taking the history, which should include an assessment of the patients risk level
- Take note of nonverbal cues

Patient information to be gathered

Collect the following information during your patient centered discussion:

1. Name
2. Age, Gender
3. Physical address

4. Marital status
5. Presenting symptoms
6. History of presenting symptoms:
 - Discharge: duration, consistency, odour, color and amount
 - Burning, urgency and/or frequency of micturition
 - Swelling and/or pain in the groin
 - Lesion: location (vaginal, anal and oral), pain, ulcer, blister, bruises, indurations, rash, cracking
 - Lower abdominal pain in women: painful vaginal intercourse (dyspareunia)
 - Rectal discharge or pain
 - Difficulties with urination or defecation
 - Itching and/or discomfort in the perineum, peri-anal, and pubic areas
 - Non-itchy skin rashes or warty lesions
7. Medical and gynecological history:
 - Ask all females if they have ever been screened for cervical cancer
 - HIV status and proof of status/ testing history
 - Any chronic illness e.g. diabetes mellitus, If HIV+ and whether or not on ART
 - Medication history
 - Any known allergies
8. Social history:
 - Alcohol or other recreational drug use/intravenous drugs) including, frequency and quantities consumed.
9. Taking sexual history

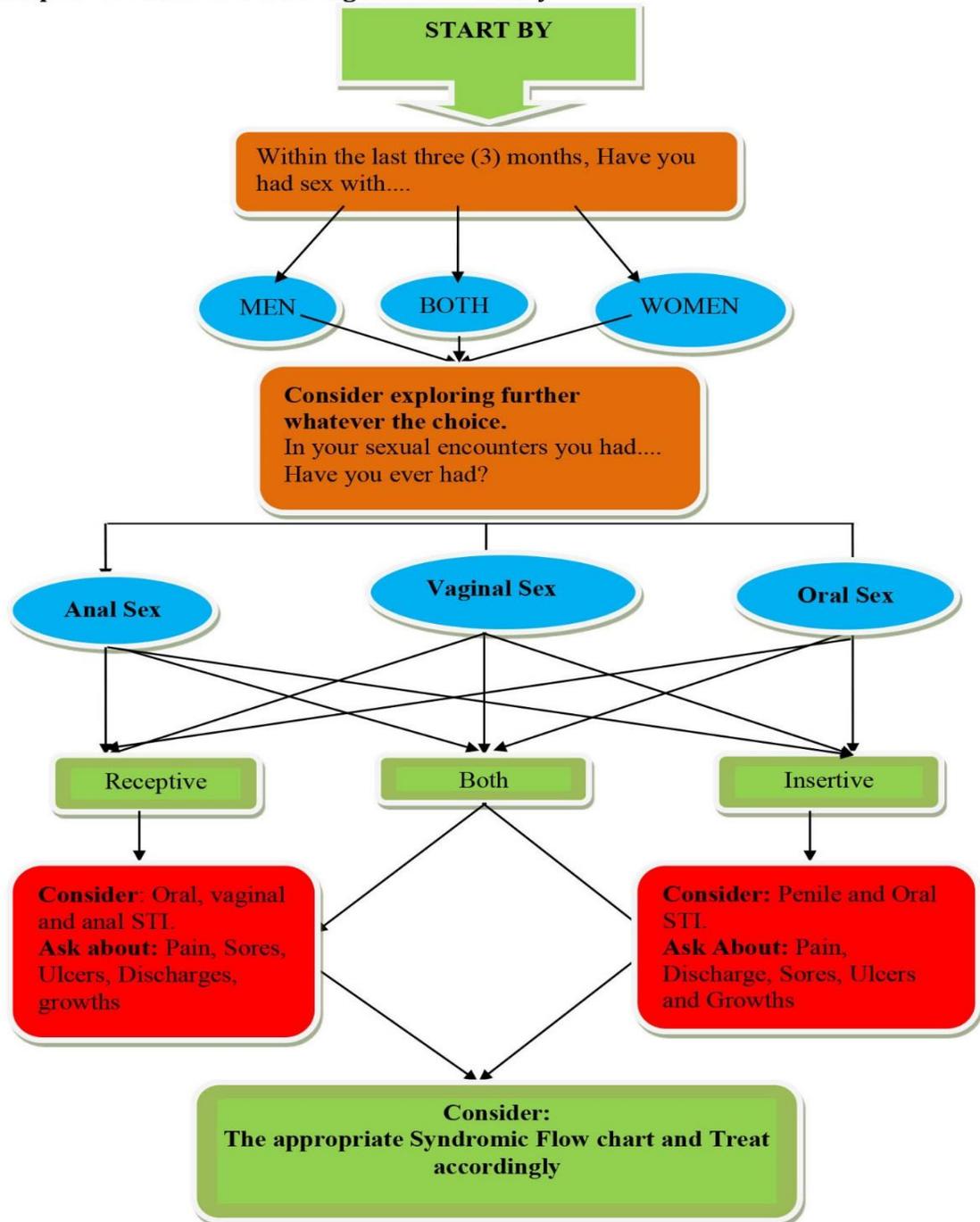
A sexual history must be acquired from patients before examining them and managing their sexual health problems. The patient must be assured that the information he/she provides to service providers is held in strict confidence. The service provider should do a behavioral risk assessment of the patient to explore the possibility of risk behaviors, including:

- are you currently sexually active
 - last sexual encounter
 - sexual exposure sites (oral, anal and vaginal),
 - multiple concurrent partnerships or sexual networks,
 - condom use with regular and/or casual sexual partners,
10. Past STI history
 - Were you ever treated for STI's before and when?
 - For which syndrome? Were you an index or contact?
 - If index, was your partner(s) treated?
 - Did you take and finish your medication?

A thorough sexual history will guide appropriate risk reduction and prevention counseling. There are several barriers to open and frank discussions of sexual health issues between patient and service provider.

See annex 1 & 2: A table on guidance for clinical history taking of STI patients.

3 Steps to consider while taking a Sexual History



2.2 Physical examination

Preparation for the exam

- Explain what you will be doing and ask for consent
- Prepare patient for exam by describing actions in advance
- Ensure privacy
- Make sure your patient is comfortable
- Always follow the Universal Safety Precautions

Universal Safety Precautions

- Hand washing before and after any direct contact with patient and wearing gloves
- Safe collection and disposal of needles (hypodermic and suture) and sharps (scalpel blades, lancets, razors, scissors), with required puncture- and liquid proof safety boxes in each patient-care area.
- Prompt and careful cleaning up spills of blood and other body fluids.
- Using a safe system for hospital-waste management and disposal.

See Annex 3: for Detailed Standard health care safety precautions.

General guidelines for conducting the exam

- Examine in a private, well-lit room
 - The patient should undress from the chest down and lie on the couch/examining table
 - Cover the patient with a sheet - only expose the parts you are examining
 - Male patients may be examined while standing if necessary
 - Perform speculum and bimanual exam gently with minimum discomfort
- Use a language the patient can understand to describe the physical findings

2.2.1 Physical examination of the female

- During a general body examination, look for rashes, swellings, and sores on chest, back, and abdomen
- Inspect skin of palms, forearms, hands, lower abdomen, and inguinal areas
- Inspect pubic hair for lice and nits
- Inspect and palpate external genitalia, inspect perineum and anus. Note any discharge, ulcers, and or growths
- Palpate neck, axillae, supra-clavicular areas, epitrochlear areas, and area under the chin for enlarged lymph nodes, inguinal lymph nodes and femoral adenopathy
- Be sure to describe the size, location, and appearance of any ulcers or warts.

Speculum examination for female

The patient should lie with her legs bent at the knees and the feet and knees separated. A good, bright light source is necessary in order to inspect inside the vagina.

- Separate the labia and insert a warm, well-lubricated bivalve speculum and inspect the vaginal walls and the cervix
- Look carefully for ulcers, warts, and cervical and vaginal discharge
- If the patient has never undergone screening for cervical cancer, or has not been screened for 2 years or more, screening, i.e. a Pap smear or visual inspection of the cervix with acetic acid (VIA), should be undertaken at this time

If the materials and/or expertise for a cervical cancer screening test are not available, the patient should be encouraged to attend / referred to a clinic providing these services.



NB: Remember that if a patient has extensive, painful genital ulcers, it may not be possible to perform a speculum examination.

Bimanual examination of the female

- When inspection of the vagina and cervix is complete, remove speculum and insert index and middle fingers into the vagina
- The exam is carried out with the two fingers inside the vagina and the other hand placed on the lower abdomen

- Check for adnexal mass and tenderness
- Check for cervical motion tenderness by gently moving cervix laterally
- Withdraw the fingers, smell and inspect the glove for discharge

2.2.2 Physical examination of the male

- Inspect skin of the neck, chest, back, hands, palms, forearms, lower abdomen, inguinal areas and thighs. Look for rashes and sores.
- Palpate neck, axillae, supra-clavicular areas, epitrochlear areas, and area under the chin for enlarged lymph nodes.
- Inspect skin of the genitals, perineum and buttocks. Look for rashes and sores.
- Inspect pubic hair for lice or nits.
- Inspect penis including the meatus, with retraction of the fore skin.
- Look for genital ulcers, urethral discharge and other abnormalities.
- If a discharge is present, note whether it is coming from the urethra.
- If there is no obvious discharge, give urethra a gentle squeeze and massage forward to try and express discharge.
- Palpate scrotal contents. Note presence or absence of genital ulcers or buboes.
- Palpate groin, feeling for inguinal lymph nodes and buboes.
- Be sure to describe the size, location and appearance of any ulcers or warts.

3.0 HEALTH PROMOTION PACKAGE

- Educate, ensure compliance, and counsel on treatment.
- Promote abstinence or condom use during treatment.
- Provide, promote correct and consistent condom and lubricants use.
- Issue notification slip for each sexual partner and emphasize the importance of partner treatment and continue to make follow up of partner treatment during review visits.
- Offer HIV counselling and testing, as per National Integrated Management HIV Guidelines.
- Offer Pre exposure prophylaxis as per guidelines
- Offer voluntary medical male circumcision
- Provide cervical cancer screening at first contact or follow-up visit.

3. 1 Health education and risk reduction counselling

A consultation for an STI is a unique opportunity to provide education and risk reduction counseling on the prevention of STI's and HIV to people most at risk of infections. Education encourages patient behavior change and is an integral part of syndromic STI case management. It must be an



interactive process that involves assessing what your patient already knows about STI's and then building on that knowledge.

The aims of risk reduction counseling and education for STI patients are to:

- Help patients re-examine long-standing habits and situations that are putting them at risk
- Prevent further transmission to others
- Help patients remain free of infection in the future
- Promote partner/s notification, treatment and education
- Promote treatment adherence
- Enhance coping with the STI and its social consequences

If risk factors are identified, providers should encourage patients to adopt safer sexual behaviors. Counseling skills (e.g. respect, compassion, and a non-judgmental attitude) are essential to the effective delivery of prevention messages.

The key issues to discuss with an STI patient are:

- What STI the patient has, its implications and treatment, and the importance of complying with treatment (the right patient, the right drug, the right dose, the right route, and the right time.)
- The risk for acquiring & transmitting HIV infection
- The need for safer sex practice e.g. Consistent correct condom use, reducing promiscuity
- Methods of lowering their risk of acquiring STI's and HIV, including abstinence/, being faithful to sexual partner(s), correct and consistent use of male and or female condoms with lubricants when necessary.
- Discuss any barriers the patient perceives to practice safe sex
- What changes the patient can and will make in their sexual behavior
- The importance of seeking health care promptly
- Talking about partners, and confirming the three essential decisions:
 - a. to complete their treatment,
 - b. to reduce any risk sexual activities, and
 - c. to see that their sexual partners are completely treated.

3.2 Condom promotion and supply

Condom promotion, demonstration and distribution are critical components of effective STI case management. The STI consultation provides an opportunity to promote and supply condoms, as patients should be more receptive to understanding their usefulness in decreasing their future exposure to STI/HIV.

Condom promotion to STI patients should include:

- Demonstration of correct use – including partner negotiation skills for condom use, and
- Provision of condoms to the patient and advice on further condom supply.

NB: Refer to National Condom Distribution Guideline for more information.

3.3 Notification and management of sexual partner(s)

Notification and management of sexual partner(s) is one of the most important components of STI case management. It helps to break the cycle of transmission and prevent the development of potential STI complications. Both men and women with STI may be asymptomatic, thus, partner



notification and management offers an opportunity to identify and treat people who otherwise would not have sought treatment.

It also offers an opportunity to provide focused STI and HIV education to individuals who are by definition at high risk of infection. There is good evidence that partner notification is an effective means of detecting untreated STI's. Effective management cannot be achieved without partner notification and treatment.

3.3.1 Principles of partner management

Partner notification should be conducted in such a way that all information remains confidential. The process should be voluntary and non-coercive. The health care provider is also required to show respect and a non-judgmental attitude.

Management of sexual partners is based on knowledge of the index patient's diagnosis. The following strategies can help for the treatment of partners in addition to the strategy currently used in the country:

- Offer immediate treatment of all patient's sexual partners (i.e. provide same treatment as the patient even if the partner(s) have no sign of STI)
- It might also be possible to give prescription for his/her partner if the index case is not willing to bring his/her partner in for care especially for Female Sex-workers who usually have casual partners.
- In addition to the STI being treated, the partner should also be assessed for other STI's.

The strategy selected will depend on several factors, which include: the risk of infection, the seriousness of the disease, the likelihood of a person returning for follow-up, the availability of effective treatment, and the likelihood of spread if treatment is not given.

3.3.2 Approaches to partner management

There are two approaches mainly the passive and active contact tracing. The HCW needs to discuss both approaches with the patient and agree on which one best suits the patient. In some cases both approaches can be utilized.

Passive contact tracing (also known as patient referral)

In passive contact tracing it is the patient who takes responsibility for contacting partners and asking them to come for treatment. An infected patient is encouraged to notify partner(s) of their possible infection without the direct involvement of health care providers. News of STI can be especially damaging when a patient or partner hears of their partner's infidelity for the first time. Such events might lead to marital breakdown, divorce, verbal or physical abuse, loss of home or livelihood, or even ostracism from the social group. Because of these and other reasons, 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. An index patient might approach partner(s) in several ways:

- By directly explaining about the STI infection and the need for treatment;
- By accompanying a partner to a health facility;
- By giving each partner a contact slip asking him or her to get treated.

The success of patient referral is dependent on index patient, partner motivation, the quality and appropriateness of counseling received by the index patient. Moreover, its success depends on the skills of the 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. The service provider needs to:

- Explain that the patient's partner(s) need to be treated so that the patient is not re-infected and his/her partners don't suffer the consequences of untreated STI;

- Remind the patient how to avoid re-infection (abstain, be faithful, use condoms, get all partners treated);
- Help the patient learn how to communicate with partner (s);

Active contact tracing (also known as provider referral)

This is where a member of the health team contacts the partner(s) of a patient with STI. Provider referral can be expensive, and can be perceived as a threat to patient confidentiality if the patient is not informed in advance that this might occur.

3.4 HIV testing Services (HTS)

The underlying principle to increasing access to HTS in a patient with STI is that HIV is also an STI and the individual is at a high risk of being HIV positive thus:

- To screen all STI patient for HIV and also screen all HIV positive patients for STI's
- Observe the 5Cs confidentiality, consent, counseling, connection and correct results.

3.5 Voluntary Medical Male circumcision (VMMC)

The benefit of circumcision has not been shown against gonococcal or chlamydial infections in men. Similarly, women's risk for chlamydial and gonococcal infections has not changed due to male circumcision. However, in light of the high prevalence of genital ulcer syndrome and HIV infection in the SADC region, it is recommended that male circumcision procedure should be offered routinely as a part of STI care. Service providers should explain the benefits of male circumcision to all sexually active uncircumcised male presenting to the health facility, whether as patient or partner.

3.6 Cervical cancer screening

Cervical cancer kills more women than any other cancer, and its incidence is on the rise. The human papilloma virus (HPV) is the main cause of cervical cancer, and women with HIV are at an elevated risk of developing this cancer. Therefore cervical cancer screening should be undertaken on all women presenting with STI's, and especially HIV positive women.

Ideally, all women who have been sexually active should be screened for cervical cancer every 2 years. And it is recommended that women living with HIV should be screened at least yearly. Women beyond child-bearing age should also still be screened regularly.

If a woman has never undergone screening for cervical cancer, or has not been screened for 2 years or more, screening should be undertaken during the speculum examination. Screening includes either:

- A Pap smear, or
- Visual inspection of the cervix with acetic acid (VIA)

If the materials and/or expertise for either of these tests are not available, the patient should be referred to a health care facility providing these services. (National Referral Protocol to be adhered to)

NB: If a woman has extensive ulcerations that impede speculum insertion, or if the woman is bleeding heavily on her menses, set another appointment which would be ideal for cervical cancer screening.

3.7 Follow up visit for patients with STI

The importance of a follow up visit is to ensure cure and to exclude incubating STI's. Some patients may not respond to the initial syndromic treatment hence re-assessment may be necessary. The response to treatment might not be as expected when patients with STI have concomitant HIV infection. Moreover, HIV counseling and confidential testing can be re-offered during a follow up visit, if testing was refused on the initial visit. Offer the option of HIV self-testing following national guidelines

3.8 STI Reporting Systems

All health facilities (private and public) should record and report STI cases treated at their facilities using the approved National tools provided Health Management and Information System (HMIS).

4.0 MANAGEMENT OF STI ASSOCIATED SYNDROMES

Common STI syndromes are the following:

- Genital ulcer syndrome (GUS)
- Male Urethritis Syndrome (MUS)
- Vaginal Discharge Syndrome (VDS)
- Lower abdominal pain (LAP)
- Scrotal Swelling Syndrome (SSW)
- Inguinal Bubo (IB)
- Neonatal Conjunctivitis(NC)
- Mixed STI Syndrome (MSS)

4.1 Genital ulcer syndrome (GUS)

Description

Ulceration of the genitals is among the most common STI syndromes in men and women. The most common STI's presenting with genital ulcer(s) are genital herpes (caused by herpes simplex virus, syphilis, and chancroid. Individual ulcers may be caused by more than one pathogen (mixed infections). Other STI's causing genital ulcers include donovanosis and lymphogranuloma.

Etiology

The relative prevalence of causative organisms for genital ulcer disease (GUD) varies considerably in different parts of the world.

Common etiologies for genital ulcer syndrome

- *T. pallidum*
- *H. ducreyi*
- *H. simplex type 2*
- *C. granulomatis* (Donovanosis)

Clinical features

- Patients with GUS may present with single or multiple ulcers, with or without pain.
- Lymph nodes in the groin may also be enlarged and painful.
- Herpetic lesions that have a classical onset with a prodrome of itch.

Syndromic treatment for genital ulcer syndrome

- Benzathine Penicillin, 2.4 million units I.M stat
PLUS
- Azithromycin, 1g, orally stat
PLUS
- Acyclovir, 400mg orally TDS for 7 days

In pregnant women who are allergic to penicillin: Give Erythromycin base/ stearate 500 mg orally QID for 14 days.

Treatment Options

Recommended treatment regimens

If ulcer(s) alone or ulcer(s) along with herpetic vesicles are visible*

Treat for syphilis, chancroid and herpes. Regimen should include:

- Benzathine Penicillin*, 2.4 million units I.M stat,
PLUS
- Azithromycin, 1g orally stat; OR Ceftriaxone, 250mg I.M stat; OR Ciprofloxacin, 500mg orally BID for 3 days; OR Erythromycin, 500 mg orally QID for 7 days (to treat chancroid)
PLUS
- Acyclovir, 400mg orally TDS for 7 days (to treat genital herpes).

NB: Penicillin-allergic patients treat with: Erythromycin 500mg 6 hourly for 14 days

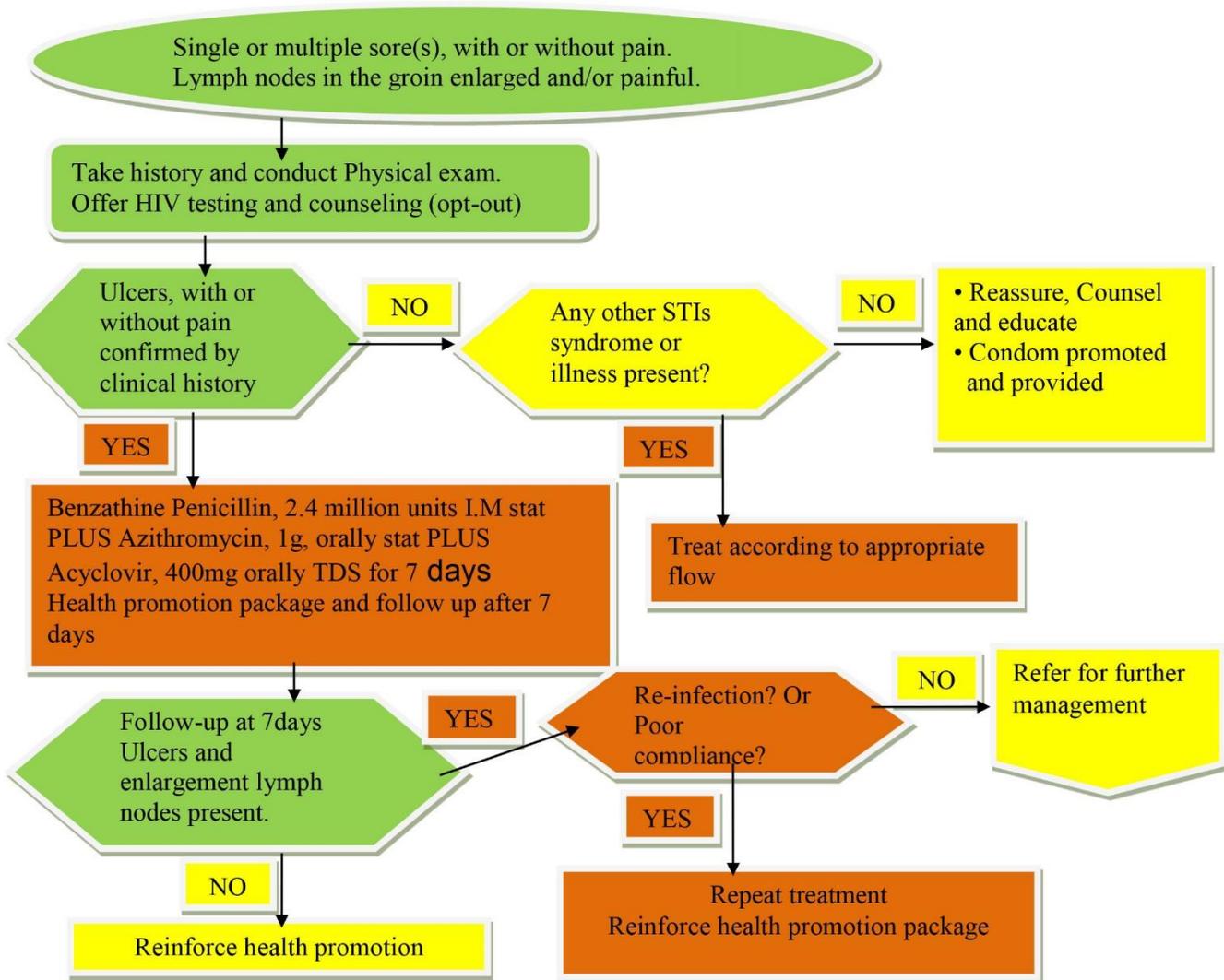
Recommended regimen for genital herpes:

- First episode: Acyclovir, 400mg orally TDS for 7 days;
- Recurrent episodes: Acyclovir, 800mg orally TDS for 3days

The chronic and recurrent nature of the illness should be explained to the patient, who should be advised to avoid sexual contact until the lesions are completely healed.

4.1.1 See chart 2 for syndromic treatment for genital ulcer syndrome.

Flowchart for syndromic treatment of genital ulcer syndrome



Health promotion package

- Educate, ensure compliance, and counsel on treatment.
- Promote abstinence or condom use during treatment.
- Promote correct and consistent condom use also provide condoms and lubricants.
- Issue one notification slip for each sexual partner and emphasize the importance of partner treatment.
- Offer HIV counselling and testing, as per Integrated HIV Guidelines.
- Offer voluntary medical male circumcision.
- Offer pre exposure prophylaxis as per guideline.

4.2 Male Urethral Syndrome (MUS)

Description

Male patients complaining of urethral discharge and/or dysuria should be examined for evidence of discharge. Origin of the discharge needs to be identified: urethritis causes discharge from the meatus.

Etiology

The major pathogens causing urethral discharge is *N gonorrhoea*, *C trachomatis* and sometimes *T vaginalis*

Syndromic treatment for male urethritis syndrome

- Ceftriaxone, 250 mg I.M stat
PLUS
- Azithromycin, 1 g orally stat

Treatment Options for Urethral Discharge Syndrome

Recommended treatment regimens for gonococcal infections

First-line:

- Ceftriaxone, 250 mg IM stat. OR Cefixime, 400 mg orally stat,

Second-line:

- Spectinomycin, 2 g IM stat, OR Gentamicin, 240 mg IM stat.
- For all neonates, topical ocular prophylaxis for the prevention of gonococcal and chlamydial ophthalmia neonatorum.

Recommended treatment regimens for chlamydial infections

First-line:

- Azithromycin 1 g orally as a stat dose
- Second-line:
- Doxycycline 100 mg orally BD for 7 days
- Erythromycin 500 mg orally QID for 7 days

Ofloxacin 400 mg orally BD for 7 days.

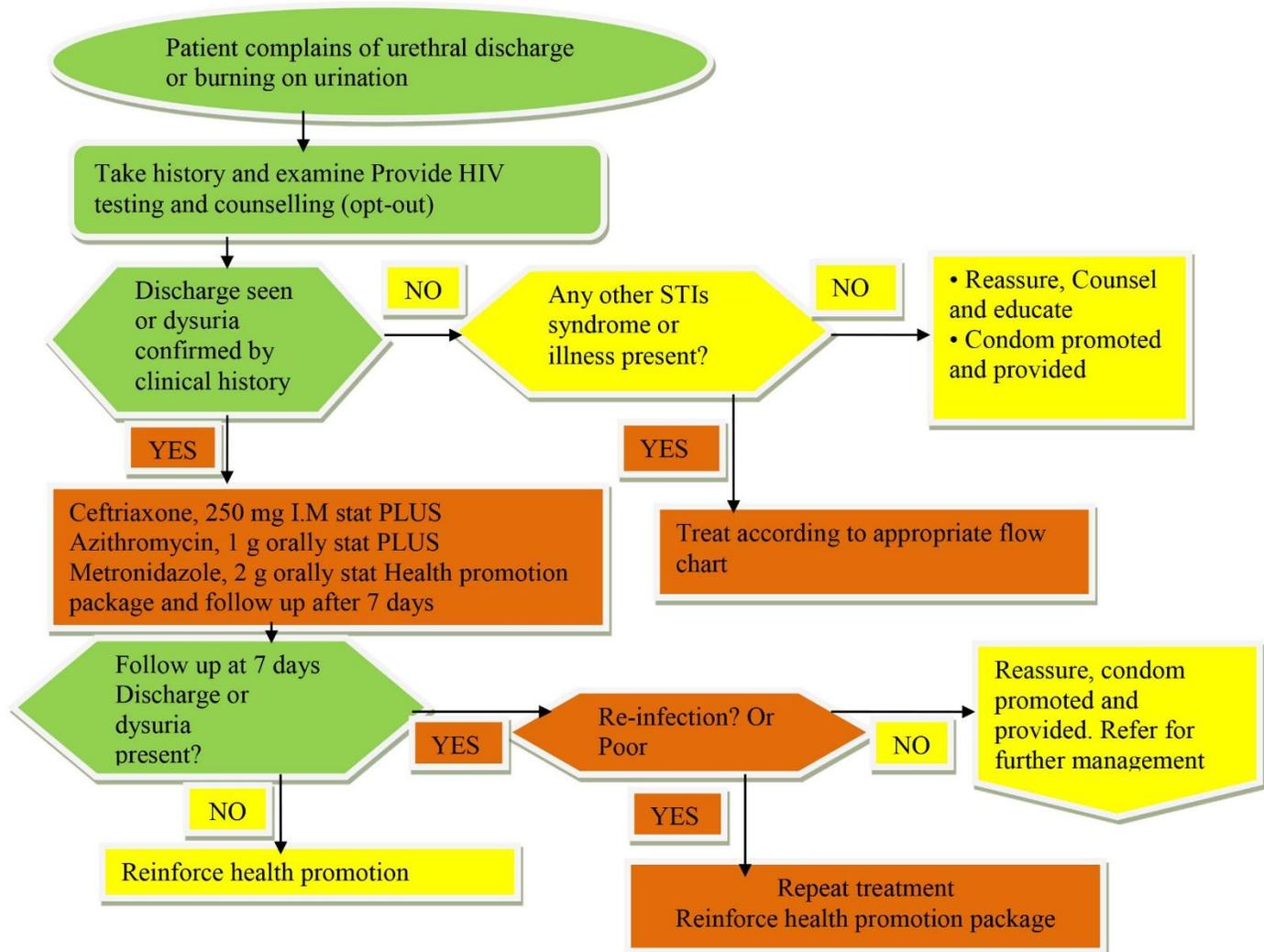
NB: For ano-rectal infection: Doxycycline is preferred over Azithromycin

Recommended treatment regimens for trichomonas infection

- Metronidazole 2g orally stat

4.2.1 See chart 3 for syndromic treatment for male urethral syndrome.

Flowchart for syndromic treatment of male urethritis (MUS)



Health promotion package

- Educate, ensure compliance, and counsel on treatment.
- Promote abstinence or condom use during treatment.
- Promote and demonstrate consistent condom use, and provide condoms.
- Issue one notification slip for each sexual partner and emphasize the importance of partner treatment.
- Offer HIV counselling and testing, as per Integrated HIV Guidelines.
- Offer male circumcision to the uncircumcised.
- Offer pre exposure prophylaxis

4.3. Vaginal Discharge Syndrome (VDS)

Description

VDS is a vaginal discharge characterized by abnormal vaginal discharge in terms of increased quantity, and/or unusual color or malodor.

Etiology

N. gonorrhoea and *C. trachomatis* can cause cervicitis

Vaginal pathology: *T. vaginalis*, *C. albicans*, and bacterial vaginosis.

Clinical features

The symptoms of vaginal discharge syndrome include:

- Increased secretions,
- Change in the color or consistency, foul odor,
- Itching and soreness,
- Painful urination
- Pain during sexual intercourse.

Syndromic treatment of vaginal discharge syndrome (VDS)

- Ceftriaxone 250mg IM stat
PLUS
- Azithromycin, 1 g orally stat
PLUS
- Metronidazole 2g orally stat.

NB: In case VDS is due to vaginitis, conduct risk assessment, if negative the treatment regimen should cover organisms causing bacterial vaginosis and candidiasis infections:

- Metronidazole** 2 g orally, stat dose
PLUS
- Clotrimazole pessary 500mg intra-vaginally once nocte

Patients taking Metronidazole should be cautioned to avoid taking alcohol while on these drugs and up to 24-48 hours after the last dose.

Treatment Options for vaginal discharge syndrome

Vaginal discharge syndrome due to cervicitis, OR when risk assessment is positive, OR where speculum examination is not possible. The treatment regimen should cover organisms causing gonococcal, chlamydial and trichomonas infections.

- Ceftriaxone 250mg IM stat OR Cefixime 400 mg orally stat
PLUS
- Azithromycin, 1 g orally stat (OR Erythromycin 500mg QID x 7 days)
PLUS
- Metronidazole 2g orally stat

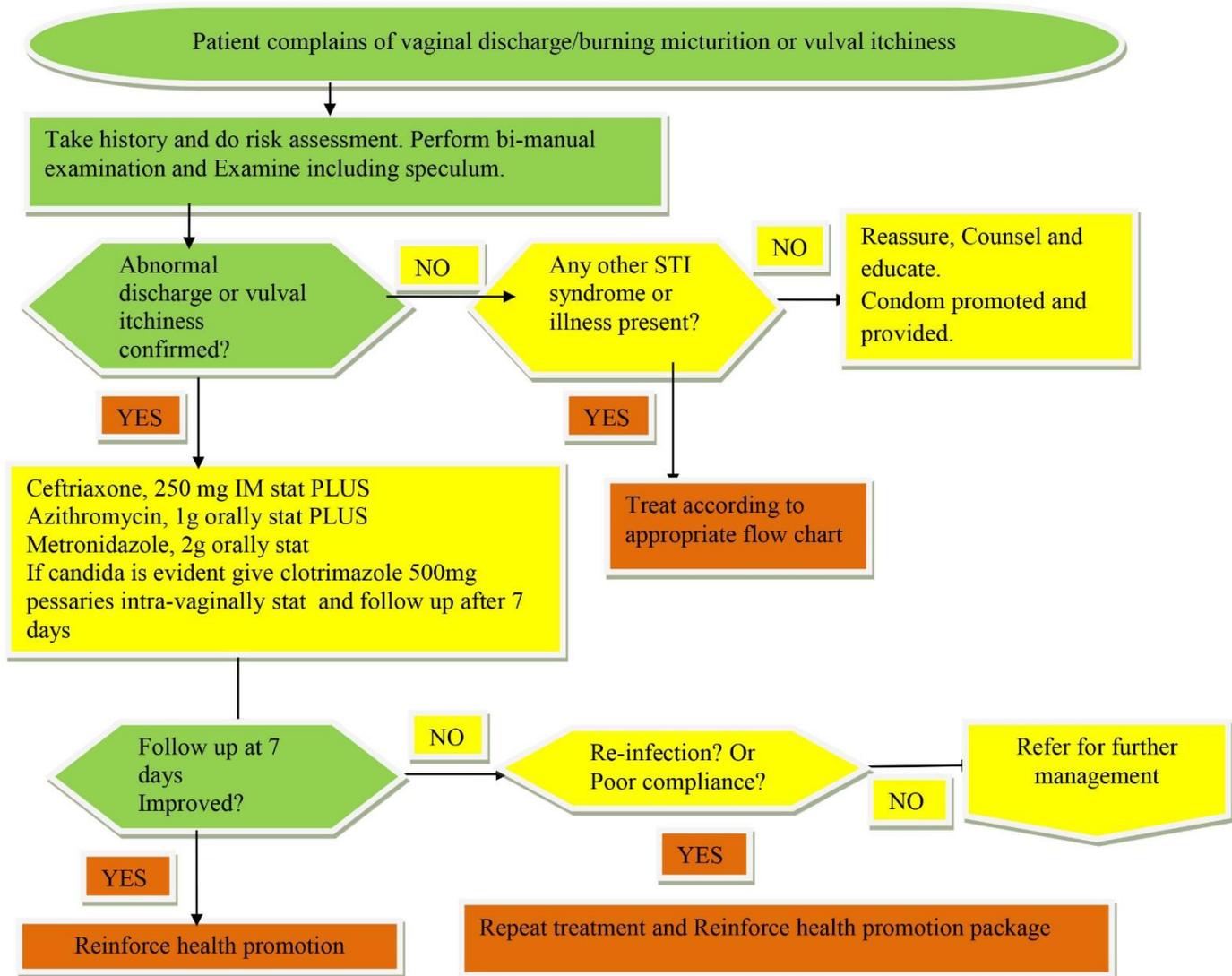
- Ceftriaxone 250mg IM stat OR Cefixime 400 mg orally stat
PLUS
- Azithromycin, 1 g orally stat (OR Erythromycin 500mg QID x 7 days)
PLUS
- Metronidazole 2g orally stat

If vulval oedema, itching, excoriations or curd-like discharge present ADD:

- Clotrimazole pessary 500mg intra-vaginally stat

4.3.1 See chart 4 for syndromic treatment for vaginal discharge syndrome.

Flow chart for syndromic treatment of vaginal discharge syndrome



Health promotion package

- Educate, ensure compliance, and counsel on treatment.
- Promote abstinence or condom use during treatment.
- Promote correct and consistent condom use also provide condoms and lubricants.
- Issue one notification slip for each sexual partner and emphasize the importance of partner treatment.
- Offer HIV counselling and testing, as per Integrated HIV Guidelines.
- Offer voluntary medical male circumcision.
- Offer pre exposure prophylaxis as per guideline.

4.4 lower abdominal pain (LAP)

Description Lower abdominal pain is one of the major signs of pelvic inflammatory disease (PID) which may be accompanied by cervical motion tenderness on bimanual examination, a complaint of back pain, lower abdominal tenderness with or without guarding on abdominal examination. All sexually active women presenting with history of lower abdominal pain should be carefully evaluated for the presence of salpingitis and/or endometritis – elements of pelvic inflammatory disease (PID). In addition, routine bimanual and abdominal examination should be carried out on all women with presumptive STI since some women with PID will not complain of lower abdominal pain. Hospitalization of patients with acute PID should be seriously considered when:

- The diagnosis is uncertain
- Surgical emergencies such as appendicitis and ectopic pregnancy cannot be excluded
- A pelvic abscess is suspected
- The patient is pregnant

Risk factors: women with IUD have a higher risk of PID, particularly if the IUD had been inserted recently.

Etiology

N. gonorrhoea, *C. Trachomatis* and anaerobic bacteria are most frequently responsible of this syndrome.

Clinical features

Lower abdominal pain is a complex syndrome to identify. Several other important non-STI causes may produce similar symptoms and signs.

- In all suspected lower abdominal pain patients, bi-manual examination and speculum must be conducted.
- The physical examination should assess the general condition of the patient. In all cases, pregnancy-related conditions, as well as an acute abdominal tenderness, should be excluded.
- Elevated temperature, high pulse rate, bleeding and low blood pressure, for example, should alert to the possibility of severe pelvic infection.
NB: Such patients should be referred urgently.
- On palpation, if signs of peritonitis such as lower abdomen guarding and rebound tenderness or if abdominal masses are present, the patient must be referred accordingly for further management.

Syndromic treatment of lower abdominal pain

- Ceftriaxone, 250mg IM stat
PLUS
- Azithromycin, 1g orally weekly for 2 weeks
PLUS
- Metronidazole, 400mg orally BID for 7 to 14 days

Treatment options for lower abdominal pain (

- Ceftriaxone, 250mg I.M stat
PLUS
- Azithromycin, 1g orally per week for 2 weeks, OR Doxycycline 100 mg orally BID for 14 days OR Erythromycin, 500 mg orally QID for 14 days



PLUS

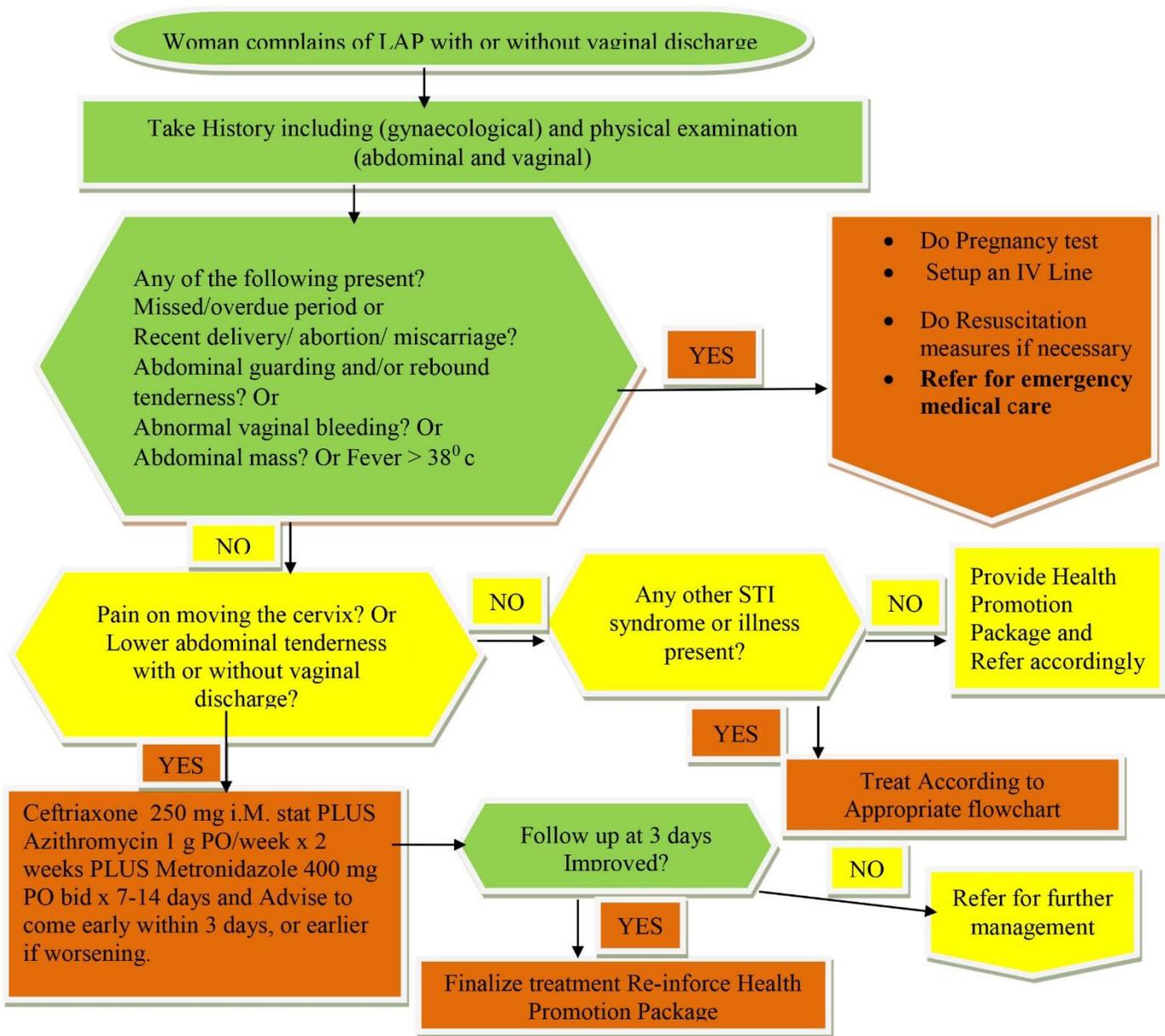
- Metronidazole, 400mg orally BID for 7 to 14 days

NB: Patients taking Metronidazole should be cautioned against taking alcohol while on these drugs and up to 24 - 48 hours after the last dose.

Caution: PID can be a serious condition. The patient must be referred: if she does not respond to treatment within 3 days and even earlier in case there is worsening of her condition. Because of the high risk for maternal morbidity, fetal wastage, and preterm delivery. Pregnant women who have suspected PID should be referred for hospitalization further management by an obstetrician.

4.4.1 See chart 5 for syndromic treatment for lower abdominal pain.

Syndromic treatment of lower abdominal pain (PID)



Health promotion package

- Educate, ensure compliance, and counsel on treatment.
- Promote abstinence or condom use during treatment.
- Promote correct and consistent condom use also provide condoms and lubricants.
- Issue one notification slip for each sexual partner and emphasize the importance of partner treatment.
- Offer HIV counselling and testing, as per Integrated HIV Guidelines.
- Offer voluntary medical male circumcision.
- Offer pre exposure prophylaxis as per guideline.

4.5 Scrotal swelling (SSS)

Description

Inflammation of the epididymis usually manifests itself by acute onset of unilateral testicular pain and swelling, often with tenderness of the epididymis, vas deferens, and occasionally with erythema and oedema of the overlying skin.

Etiology

In men under 35 years, it is usually sexually transmitted. When epididymitis is accompanied by urethral discharge, it is commonly gonococcal and/or chlamydial in nature. A painful swelling of the scrotum that usually develops over 1 to 2 days is the most common presenting symptom of epididymo-orchitis. In older men, other general infections may be responsible: *E. coli*, *Klebsiella*, and *P. Aeruginosa*. In pre-pubertal children, mumps epididymo-orchitis is usually noted within a week of parotid enlargement. Scrotal swelling may be seen following trauma or testicular torsion and this required immediate referral for surgical or urological opinion. History usually indicates sudden onset or recent trauma and examination shows unilateral involvement, rotated and elevated teSTI's.

Clinical features

- The patient usually complains of unilateral pain and swelling of the scrotum with a urethral discharge which develops over 1-2 days
- On inspection, the scrotal sac appears distended and on palpation, both testicles and the epididymis are swollen and tender. Differential Dx: Testicular torsion, testicular trauma, inguinal hernia, hydrocele and haematocele.

Syndromic treatment of scrotal swelling

- Ceftriaxone, 250 mg IM stat.
PLUS
- Azithromycin, 1 g orally per week for 2 weeks
PLUS
- Combined with bed rest and scrotal support until local inflammation and fever subside.
Monitor treatment response by scheduling a follow-up visit seven days after initial clinic visit.

Treatment options of scrotal swelling

for complicated gonococcal infection:

- First-line: Ceftriaxone, 250 mg IM stat. OR Cefixime 400mg PO stat
- Second-line: Spectinomycin, 2 g IM stat, OR Gentamicin, 240 mg IM stat.

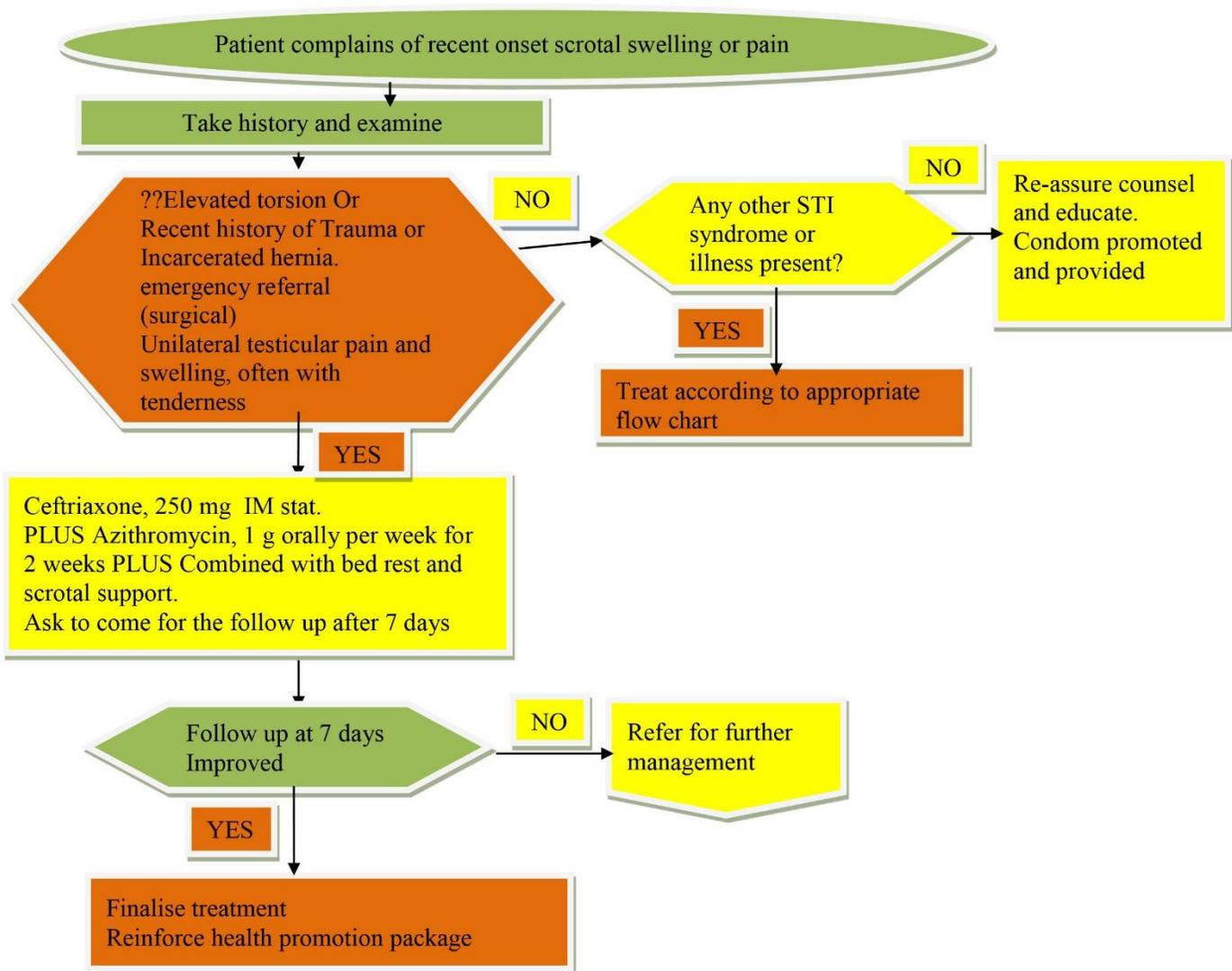
for complicated chlamydial infection:

- First-line: Azithromycin, 1 g orally per week for 2 weeks.

Second-line: Doxycycline, 100 mg orally BID for 14 days, OR Erythromycin, 500 mg orally QID for 14 days.

4.5.1 See chart 5 for syndromic treatment for Scrotal Swelling.

Flowchart for syndromic treatment of scrotal swelling



Health promotion package

- Educate, ensure compliance, and counsel on treatment.
- Promote abstinence or condom use during treatment.
- Promote correct and consistent condom use also provide condoms and lubricants.
- Issue one notification slip for each sexual partner and emphasize the importance of partner treatment.
- Offer HIV counselling and testing, as per Integrated HIV Guidelines.
- Offer voluntary medical male circumcision.
- Offer pre exposure prophylaxis as per guideline.

4.6. Inguinal bubo (IBS)

Description

Inguinal and femoral buboes are much enlarged and often pus-filled lymph nodes in the groin region. A bubo may occur in chancroid (caused by *H ducreyi*) or *L venereum* (LGV- caused by *C trachomatis* types L1, L2 and L3).

Etiology

Chancroid + LGV

Clinical features

- Inguinal buboes can occur as unilateral or bilateral, single or multiple painful swellings. Other STI's (such as gonorrhoea,
- Syphilis, herpes and HIV) may cause inguinal lymphadenopathy, which may typically be painful (herpes, gonorrhoea) or non-painful (syphilis, HIV).
- If during examination, genital ulcer(s) are seen along with inguinal buboes, the clinical management should follow the genital ulcer syndrome (GUS) protocol.

Syndromic treatment of inguinal bubo

- Azithromycin, 1g orally stat and then 1g orally per week for 2 weeks OR Doxycycline, 100mg orally BID for 14 days
PLUS
- Ciprofloxacin, 500 mg orally BID for 3 days OR Ceftriaxone, 250mg IM stat

Treatment options of inguinal bubo

Bubo:

- Ceftriaxone, 250mg IM stat OR Azithromycin, 1g orally stat and then 1 g orally per week for 2 weeks OR Erythromycin, 500mg orally QID for 14 days OR Ciprofloxacin, 500mg orally BID for 3 days.

LGV:

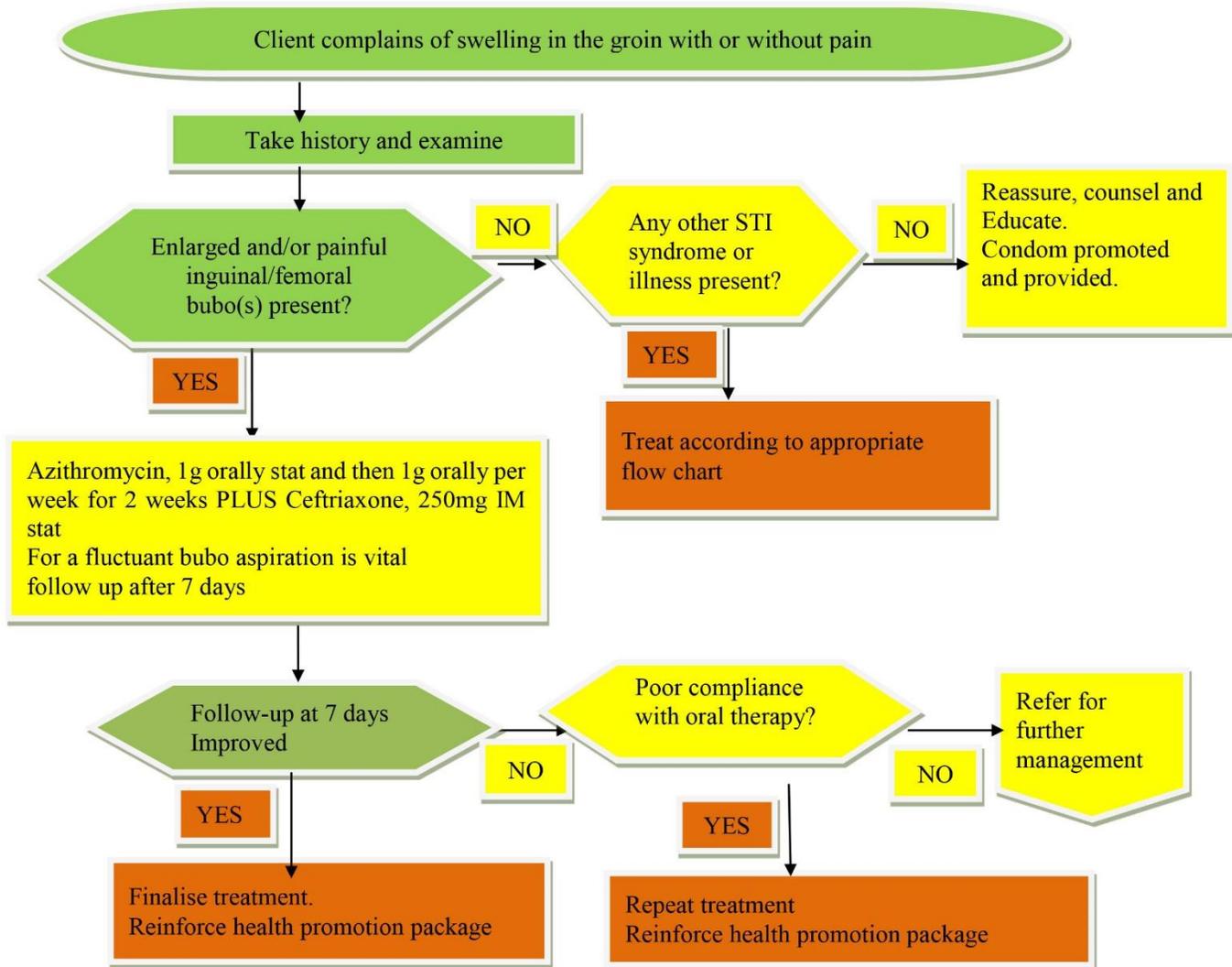
- Doxycycline, 100mg orally BID for 14 days OR Azithromycin, 1g orally stat and then 1 g orally per week for 2 weeks OR Erythromycin, 500mg orally QID for 14 days.
- * In patients intolerant to Doxycycline, or pregnant and lactating women: Give 3 doses of Azithromycin, 1 g orally per week or Erythromycin, 500mg orally QID for 14 days

NB: For fluctuant Buboes, refer for aspiration.

4.6.1 See chart 6 for syndromic treatment for Inguinal Bubo

Flowchart for syndromic treatment of inguinal bubo

5.6.3 Flowchart for syndromic treatment of inguinal bubo



Health promotion package

- Educate, ensure compliance, and counsel on treatment.
- Promote abstinence or condom use during treatment.
- Promote correct and consistent condom use also provide condoms and lubricants.
- Issue one notification slip for each sexual partner and emphasize the importance of partner treatment.
- Offer HIV counselling and testing, as per Integrated HIV Guidelines.
- Offer voluntary medical male circumcision.
- Offer pre exposure prophylaxis as per guideline.

4.7. Neonatal conjunctivitis

Description

Neonatal conjunctivitis is the condition where the baby develops purulent conjunctivitis in one or both eyes within four weeks of birth. It is a medical emergency and unless treatment is initiated within 24 hours there could be permanent damage to the eyes resulting in blindness. STI-related infections are passed from the mother to the neonate during vaginal delivery.

Etiology

N. Gonorrhoeae
C. Trachomatis

Clinical features

New-born babies usually present with redness and swelling of eyelids or “sticky eyes” due to the discharge from the eyes. The symptoms and signs may occur within one week of the birth.

Syndromic treatment of Neonatal conjunctivitis

Prevention measures:

- Screen all pregnant women for Sexually Transmitted Infections during pregnancy and provide appropriate treatment;
- Routine application of tetracycline eye ointment (1%) to all new-born's at the time of delivery;
- Provide health promotion package to parents.
- All new-born babies with conjunctivitis should be treated for both N. gonorrhoea and C. trachomatis because of the possibility of mixed infections. Clean the eyes with distilled water or saline.
- Persons caring for infected infants should always wash their hands carefully. Parents (mother and father or partner) should be examined and treated.

Treatment Options

For the new-born

- Ceftriaxone, 50mg/kg body weight (max. 125mg) IM single dose, up to maximum of 125mg

PLUS

- Erythromycin syrup, 50mg/kg body weight orally daily in 4 divided doses for 14 days.

For Breast feeding mother.

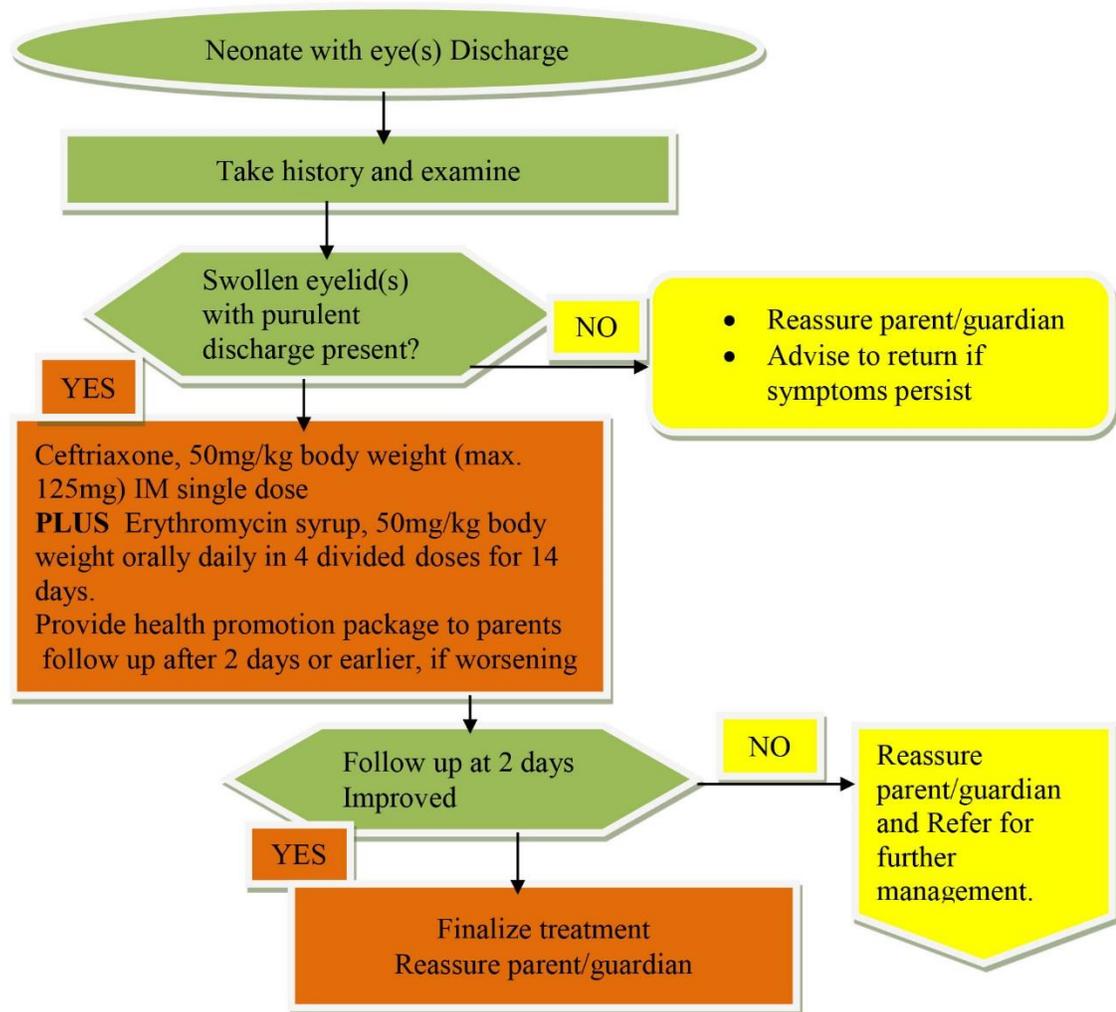
- Ceftriaxone, 250mg IM stat OR Cefixime, 400mg orally stat

PLUS

- Azithromycin, 1g orally stat OR Erythromycin, 500mg orally QID for 7 days

4.7.1 See chart 7 for syndromic treatment for neonatal conjunctivitis.

5.7.3 Flowchart for syndromic treatment of neonatal conjunctivitis



Health promotion package

- Educate, ensure compliance, and counsel on treatment.
- Promote abstinence or condom use during treatment.
- Promote correct and consistent condom use also provide condoms and lubricants.
- Issue one notification slip for each sexual partner and emphasize the importance of partner treatment.
- Offer HIV counselling and testing, as per Integrated HIV Guidelines.
- Offer voluntary medical male circumcision.
- Offer pre exposure prophylaxis as per guideline.

6. 0 MIXED STI SYNDROMES

Definition:

Client presenting with more than one syndrome

Mixed Sexually Transmitted Infections	Treatment (new episode)
UDS + SSS	Ceftriaxone, 250mg IM stat + Azithromycin, 1 g orally per week for 2 weeks + Metronidazole, 2g orally stat + Supportive therapy: to reduce pain advice bed rest, scrotal elevation with a scrotal support (T-bandage) and analgesics.
UDS + Balanitis	Ceftriaxone, 250 mg IM stat /Cefixime, 400mg orally stat + Azithromycin 1 g orally stat / Doxycycline, 100mg orally BID for 7 days + Metronidazole, 2g orally stat + Clotrimazole cream, local application BID for 7 days.
UDS + GUS	Ceftriaxone, 250mg IM stat /Cefixime, 400mg orally stat + Acyclovir, 400mg orally TDS for 7days + Benzathine Penicillin 2.4mu IM stat+ Azithromycin, 1g orally stat /Doxycycline, 100mg orally BID for 7 days + Metronidazole, 2 g orally stat.
VDS + LAP	Ceftriaxone, 250mg IM stat + Azithromycin, 1g orally per week for 2 weeks + Metronidazole, 400mg orally BID for 7-14 days. Clotrimazole pessary to be added, if vulval oedema, itching, excoriations or curd-like discharge present.
VDS + GUS (non-pregnant)	Ceftriaxone, 250mg IM stat/ Cefixime, 400mg stat + Metronidazole, 2g orally stat + Benzathine Penicillin, 2.4mu IM stat Azithromycin, 1g orally stat /Doxycycline, 100mg orally BID for 7 days + Acyclovir, 400mg orally TDS for 7 days. Clotrimazole pessary to be added, if vulval oedema, itching, excoriations or curd-like discharge present.
VDS + GUS (pregnant, breastfeeding)	Ceftriaxone, 250mg IM stat /Cefixime, 400mg stat / + Metronidazole, 2g orally stat + Benzathine Penicillin, 2.4mu IM stat + Azithromycin 1g orally stat / Erythromycin, 500mg orally QID for 7 days + Acyclovir, 400mg orally TDS for 7 days. Clotrimazole pessary to be added, if vulval oedema, itching, excoriations or curd-like discharge present.
LAP + GUS	Ceftriaxone, 250mg IM stat + Metronidazole, 400 mg orally BID for 7-14 days + Benzathine Penicillin, 2.4mu IM stat + Azithromycin, 1g orally per week for 2 weeks /Doxycycline, 100mg orally BID for 7-14 days + Acyclovir, 400 mg orally TDS for 7 days.
SSS + GUS	Ceftriaxone, 250 mg IM stat + Benzathine Penicillin, 2.4mu IM stat + Azithromycin, 1g orally per week for 2 weeks/Doxycycline, 100mg orally BID for 7-14 days +Acyclovir, 400mg orally TDS for 7 days *In Penicillin-allergic patients: Give Doxycycline (non-pregnant women) or Erythromycin (pregnant women) for 14 days

7.0 MANAGEMENT OF OTHER STI'S AND RELATED CLINICAL CONDITIONS

This section discusses the management of the common STI's that are not presented as syndromes. Details for the management of each infection or condition are provided. The following is a list of the other STI's not presenting as syndromes:

- Management of reactive syphilis test cases;
- STI screening in pregnant women;
- Balanitis and Balanoposthitis;
- Genital warts;
- Molluscum contagiosum;
- Pubic lice;
- Genital scabies;
- Vaccine preventable STI's (human papilloma virus(HPV); hepatitis B virus (HBV) infection;
- Partner notification and treatment.

7.1 Management of reactive syphilis test cases

In any health facility, there are instances when a client's blood sample is tested for syphilis – either as a routine practice such as screening of pregnant women or screening for syphilis in most-at-risk groups (for example, sex workers or new detainees in prison) or vulnerable populations (for example, victims of sexual abuse). Often, syphilis tests are done to rule out clinical suspicion of secondary syphilis in patients presenting with generalized skin rashes or lymphadenopathy, or to rule out latent syphilis in asymptomatic patients.

Serological tests for syphilis

There are two main types of serological (blood) tests for syphilis: non-treponemal tests (non-specific) and treponemal tests (specific).

Non-treponemal tests

The Rapid Plasma Reagin (RPR) and the Venereal Disease Research Laboratory (VDRL) tests detect the antibody to cardiolipin, a component of normal mammalian cell membrane. Therefore, these tests are sensitive but not specific for syphilis.

The advantage of these tests is that the results can be quantified and used for monitoring the treatment over time. Usually, these tests are positive 4-5 weeks after the occurrence of infection. A titre of 1:8 and above indicates probable active disease or recent infection (treated or untreated), although the RPR/VDRL can be negative in up to 30% of primary GUS cases.

Treponemal tests

Treponemal rapid diagnostic test (RDT/Tp), Fluorescent Treponemal Antibody test (FTA), the Treponema pallidum Haemagglutination Assay (TPHA) and the Treponema pallidum particle agglutination (TPPA) assay are specific tests which, if positive, indicate true infection. Once they are positive, they remain positive for life even after successful treatment. Therefore, they cannot be used for monitoring the patient's response to treatment.

Management

A patient who currently has no symptoms or clinical signs of syphilis but who tested positive on serological syphilis test is diagnosed as having latent syphilis. Cases of latent syphilis are further divided into early latent syphilis and late latent syphilis, depending on the duration of the illness. Treatment duration also differs accordingly. In situations where doubt exists regarding the correct classification of the stage of latent syphilis, overtreatment is warranted to avoid development of complications.

Treatment regimens for reactive syphilis test cases

Benzathine Penicillin, 2.4millionIU IM weekly, after testing for sensitivity, for 3 weeks.

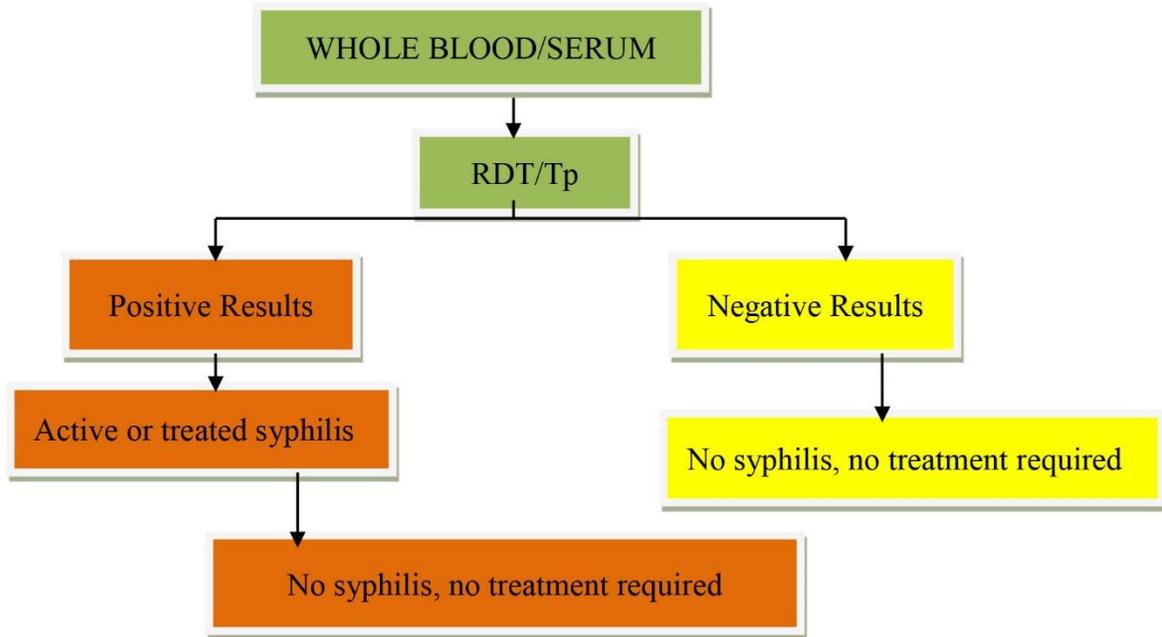
Alternative regimens for penicillin hyper- sensitive patients:

- Doxycycline, 100mg orally BID for 30 days (non-pregnant women).
- Erythromycin, 500mg orally QDS for 30 days (pregnant women).

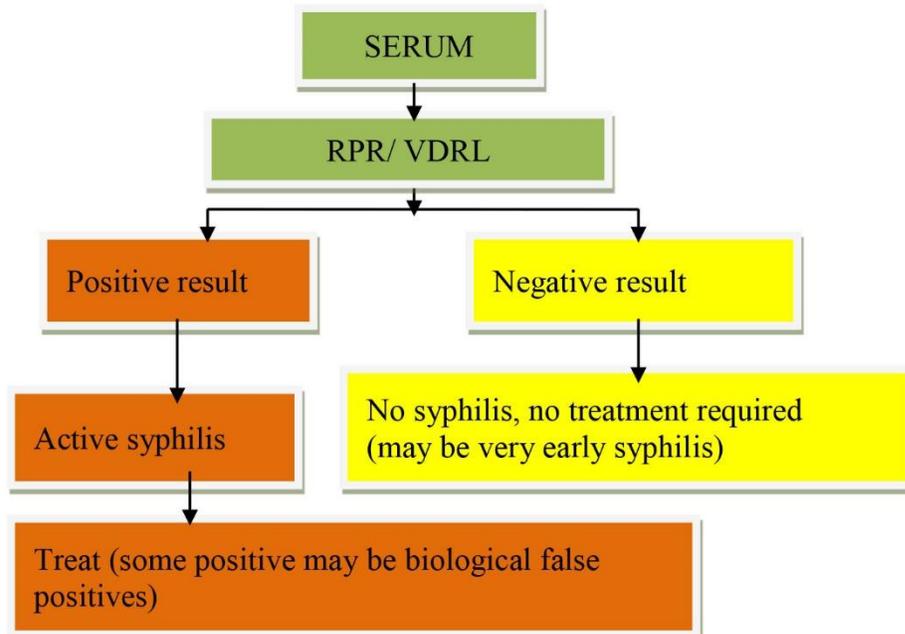
Note that Jarish Herxheimer reaction (mild fever, body aches and initiation of symptoms within 2 to 12 hours of injection) can occur with penicillin injection. This should be treated with Paracetamol, 500 mg to 1 g orally QDS on 1st day. The patient should be warned of the possibility of a reaction.

7.1.1 Syphilis testing and treatment algorithm

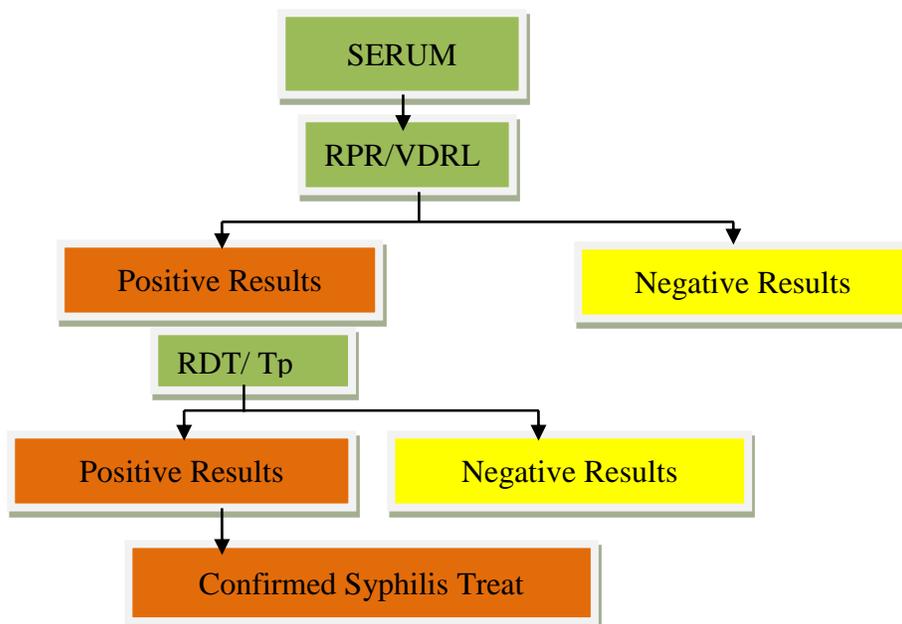
Option 1: Where RPR or VDRL testing



Option 2: Where RDT/Tp testing available



Option 3: Where RDT/Tp and non-treponemal testing



Tp = Treponemal result; NTp = Non-treponemal result

7.1.2 Syphilis in pregnancy

The clinical symptoms of syphilis are not altered by pregnancy. Since asymptomatic adult syphilis infection is common, all pregnant women should be screened for syphilis. This can reduce the complications of congenital syphilis. A rapid plasma reagent (RPR) test should be routinely done on pregnant mothers at first contact with the health care provider and treatment should be instituted if the RPR result is reactive and the partner should be treated as well. If RPR test is negative repeat after 3 months

Treatment regimens for Syphilis in pregnancy

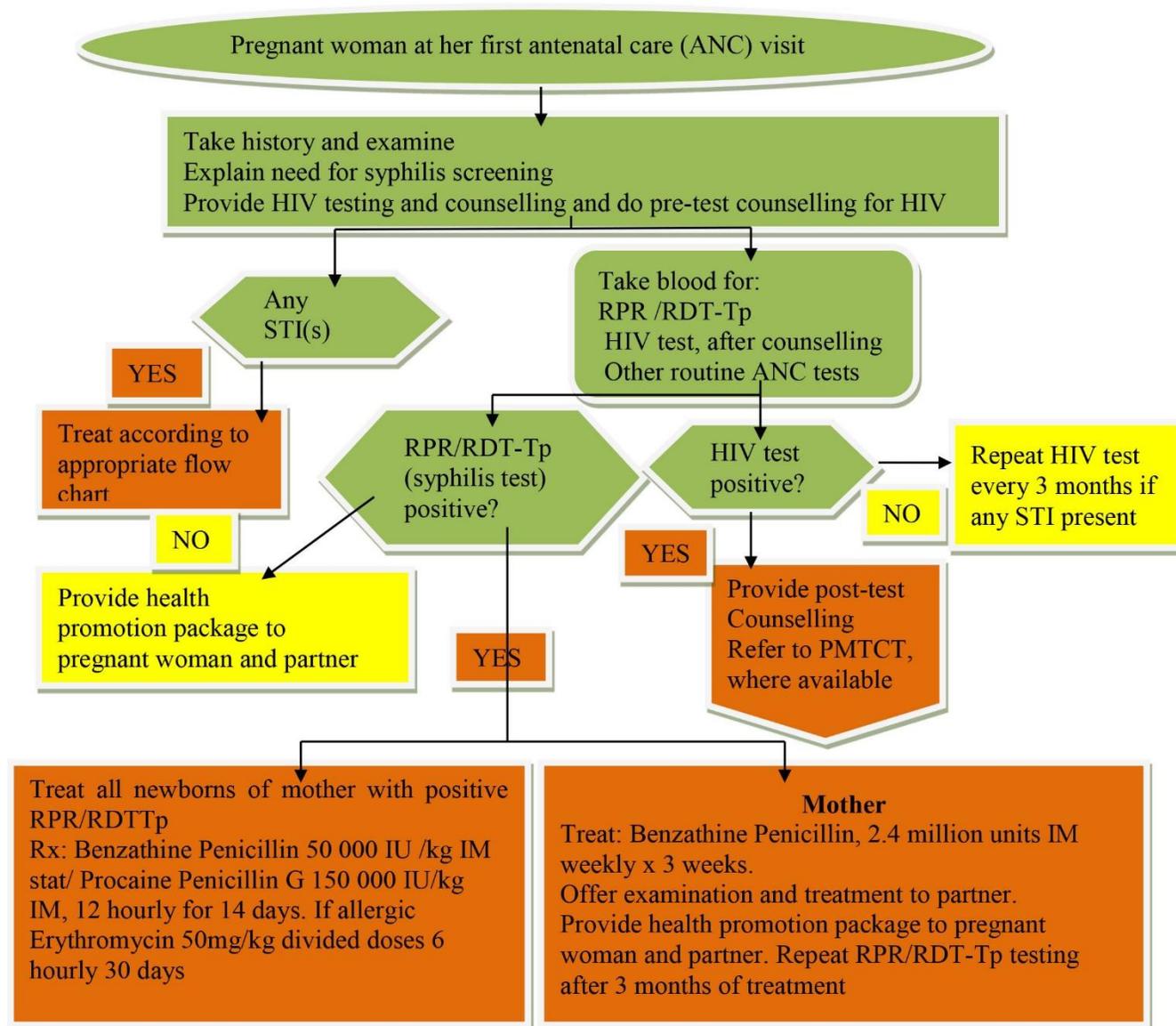
Mother: Benzathine Penicillin, 2.4mu IM weekly x 3 weeks Or Ceftriaxone, 1g IM OD for 8 to 10 days Erythromycin 500 mg orally QID for 14 days.

Neonate: Benzathine Penicillin 50 000 IU /kg IM stat Or Procaine Penicillin G 150 000 IU/kg IM, 12 hourly for 14 days

If allergic Erythromycin 50mg/kg divided doses 6 hourly 30 days

7.1.3 See chart 8 syndromic treatment for Syphilis in Pregnant Women.

Flowchart for syphilis screening of pregnant women



Health promotion package

- Educate, ensure compliance, and counsel on treatment.
- Promote abstinence or condom use during treatment.
- Promote correct and consistent condom use also provide condoms and lubricants.
- Issue one notification slip for each sexual partner and emphasize the importance of partner treatment.
- Offer HIV counselling and testing, as per Integrated HIV Guidelines.
- Offer voluntary medical male circumcision.
- Offer pre exposure prophylaxis as per guideline.

7.2 Balanitis and balanoposthitis

Description

Balanitis refers to the inflammation of the glans penis, whereas balanoposthitis is inflammation of the glans, foreskin and/ or shaft. It is commonly caused by *Candida albicans* or lactobacilli. The main complication of balanitis is phimosis, in which case the foreskin adheres to the inflamed and swollen glans penis and cannot be retracted.

Clinical features

- The common presentation is that of itch and swelling of the glans and foreskin. Sometimes pain may be reported.
- Patient may have a history of recent high-risk sexual practice, such as unprotected sex.
- A history of vaginal discharge from the partner may also be reported.

The physical examination may reveal signs of inflammation (such as red colour of skin (erythema), oedema, heat and tenderness).

The texture of the skin will also be altered, with white patches or streaks in typical cases of candidal infection. Presence of genital ulcerations and urethral discharge should be sought, and if present should be treated according to the appropriate syndromic algorithms.

Secondary bacterial infection may occur, causing superficial ulcers or erosions. Service providers should be aware that balanitis/balanoposthitis is commonly associated with diabetes mellitus and therefore should be ruled out by doing a urinalysis for glycosuria in chronic or recurrent cases.

Management

Partners should be examined for the presence of vaginal discharge. Routinely offer male circumcision to uncircumcised male patients as part of the health promotion package. If the condition is so severe that the foreskin cannot be retracted (phimosis such cases should be referred appropriately (for surgical intervention).

Recommended treatment regimens

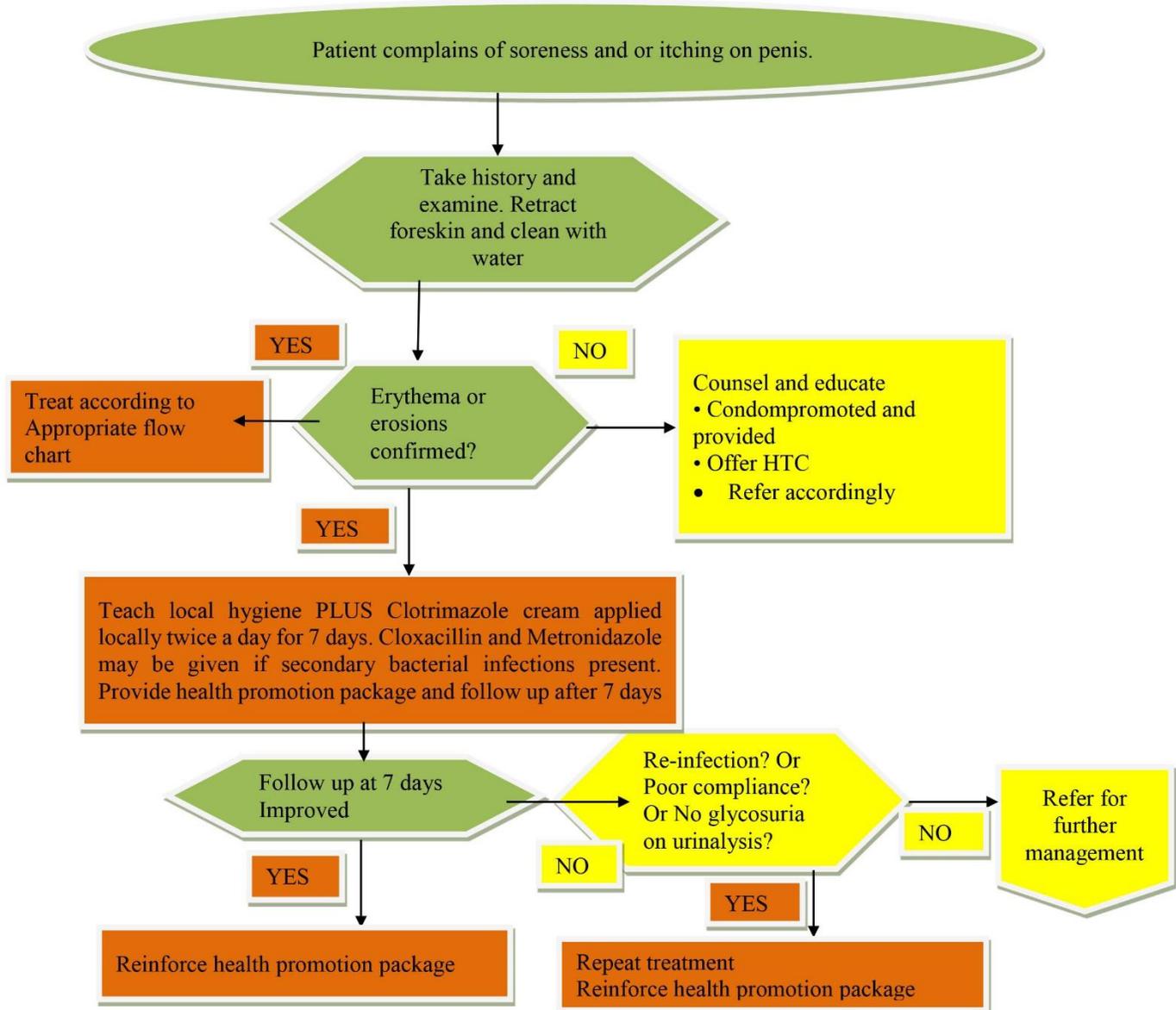
The treatment of balanitis or balanoposthitis consists of:

- Maintaining local hygiene by retracting the foreskin, if possible, when washing.
- Instruct patient to wash the affected area daily with weak saline solution (one teaspoon of salt dissolved in one litre of lukewarm water) and avoid soap while inflammatory. PLUS
- Application of an antifungal cream i.e. Clotrimazole cream applied locally twice a day x 7
- Cloxacillin 500mg QID for 7 days and Metronidazole TDS for 7 days may be given if secondary bacterial infections present.

Patients with recurrent or severe balanitis or balanoposthitis should be screened for the presence of diabetes mellitus. If the test is positive, the patient should be referred for further management.

7.2.1 See chart 9 syndromic treatment for Syphilis in Pregnant Women

Balanitis and balanoposthitis flow chart



Health promotion package

- Educate, ensure compliance, and counsel on treatment.
- Promote abstinence or condom use during treatment.
- Promote correct and consistent condom use also provide condoms and lubricants.
- Issue one notification slip for each sexual partner and emphasize the importance of partner treatment.
- Offer HIV counselling and testing, as per Integrated HIV Guidelines.
- Offer voluntary medical male circumcision.
- Offer pre exposure prophylaxis as per guideline.

7.3 Genital Warts

Description Warts may not cause symptoms and can regress naturally. Also referred to as condyloma accuminata may be found in the genital, oral and anal areas. Herpes Papilloma Virus (HPV) is the causative organism for warts and may manifest as a single or a clusters of lesions. They may appear as soft pink cauliflower like growth in moist areas rarely syphilitic warts can present as flat or papillary in shape.

Etiology

Human Papilloma Virus (HPV type 6 and 11)
Syphilis (*Treponema pallidum*)

Recommended management of genital warts

- The primary goal for treatment of genital wart is to eliminate the symptoms caused by the visible warts.
- Eradication of the virus and elimination of infectivity is difficult to achieve.

Treatment for genital warts

Chemical cauterization:

- 25% Podophyllin in compound Tincture of Benzoin applied to the warts while carefully protecting the surrounding area with vaseline, to be washed off after 4 hours.
- It is recommended that Podophyllin, 0.5 ml or less per session, be applied and/or 10 cm² or less of warts per session be cauterised.

Treatment should be repeated weekly until lesions resolve completely. Podophyllin application should be done under medical supervision. Patient should be warned against self-medication and do not apply podophyllin in Pregnant patients.

OR

- Podofilox (Podophyllotoxin) 0.5% solution or gel applied BID for 3 days, followed by 4 days of no treatment, with the cycle repeated up to 4 times. Not more than 0.5 ml of Podofilox should be applied per day.

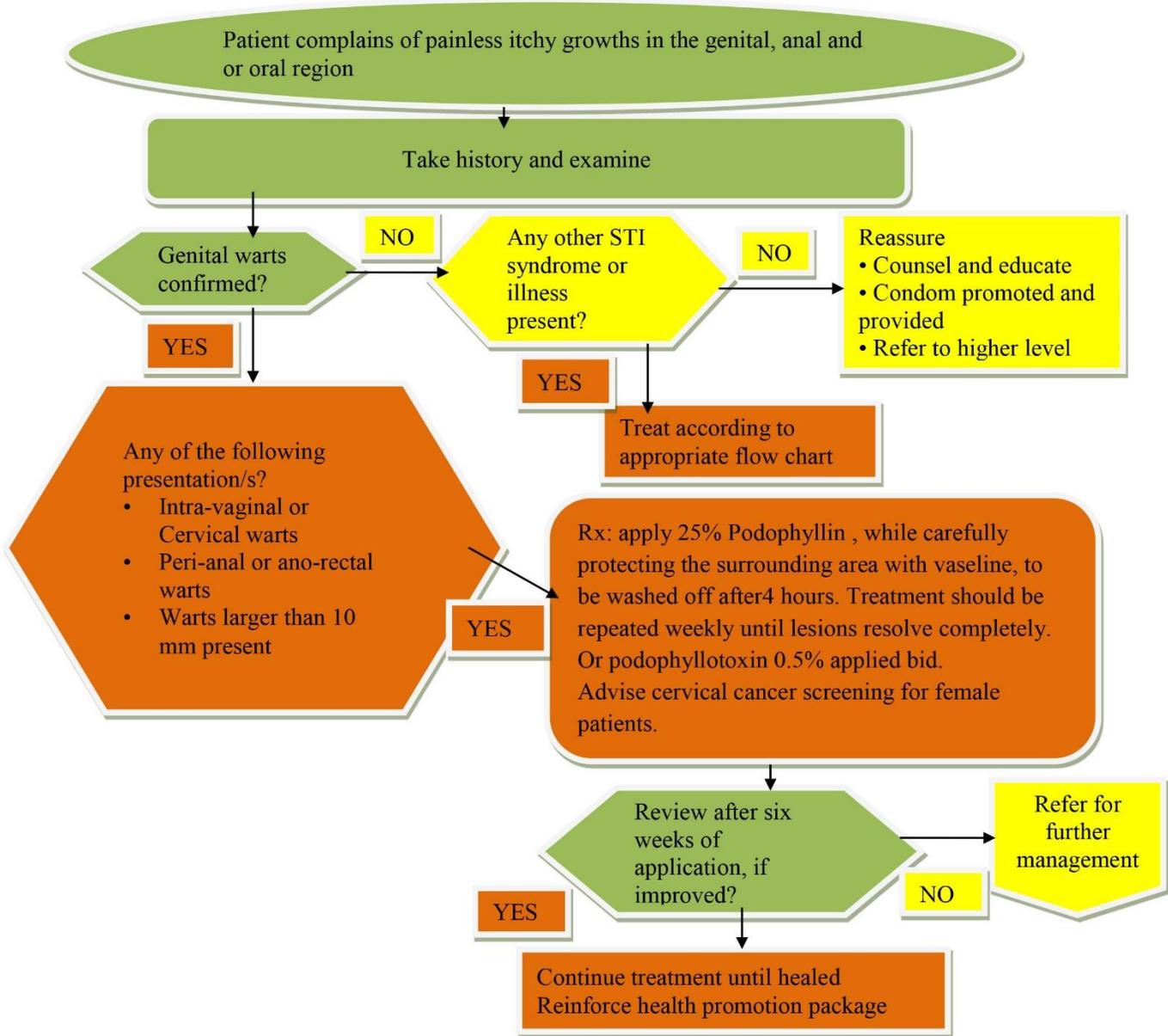
OR

Trichloroacetic acid (TCA) 80 to 90% can be applied carefully to the warts, excess of TCA may be removed by applying ordinary salt or sodium bicarbonate. TCA application should be done at weekly intervals for a maximum of 6 weeks.

NB: Cervical, meatal and urethral warts should be managed by experts

7.3.1 See chart 10 syndromic treatment for management of Genital warts

Flowchart for management of Genital warts



Health promotion package

- Educate, ensure compliance, and counsel on treatment.
- Promote abstinence or condom use during treatment.
- Promote correct and consistent condom use also provide condoms and lubricants.
- Issue one notification slip for each sexual partner and emphasize the importance of partner treatment.
- Offer HIV counselling and testing, as per Integrated HIV Guidelines.
- Offer voluntary medical male circumcision.
- Offer pre exposure prophylaxis as per guideline.

7.4 Molluscum Contagiosum

Description

Molluscum contagiosum is caused by a type of Pox virus. Transmission occurs most commonly through sexual or non-sexual contact, and is enhanced by friction or micro-trauma.

Clinical features

The typical eruption appears as a pearly white dome-shaped papule with central umbilication from which caseous material can be expressed. These lesions mostly appear at the point of contact (such as the genital area). Individual lesions usually regress without treatment in 9-12 months. Generalized lesions, especially multiple lesions on face, may indicate immuno-suppression due to underlying infection.

Management

Excision curettage: Each lesion should be thoroughly opened with a fine sterile needle. The contents should be expressed and the inner wall touched with either Phenol/ Silver Nitrate. OR Trichloroacetic acid 30% solution or Iodine solution. OR Apply Podophyllotoxin 0.5% to the individual lesion BID for 3days. OR Imiquimod 5% cream. OR Cryotherapy with liquid nitrogen.

Cases for referral

Patients with generalized lesions should be encouraged to undergo HIV testing and counselling, if their sero-status is unknown. These patients should be referred to the dermatology unit for further management.

7.5 Management Of Survivors Of Sexual Violence

Definition

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”.

Clinical features

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 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.

Key points

- Sexual violence is common but is **frequently not talked about** by the person concerned—health care workers should maintain a high index of suspicion. They should ask about experience of sexual violence or abuse.
- Individuals who have been sexually abused may need **shelter** and **legal protection**. Psychosocial management includes **counseling** and **supportive services**, which should be available on-site or by referral.

☐ Medical management includes prevention of pregnancy and infection, in addition to care of injuries. **STI and HIV Post Exposure Prophylaxis** and **emergency contraception** should be available.

☐ **Forensic examination** should be available and document evidence for legal action.

☐ **Referral** should be available if services cannot be provided on-site.

Preventing STI’s in victims of sexual abuse

STI’s in victims of sexual abuse requires a detailed history of abuse or assault and complete examination of the victim and (if possible) the alleged offender. There is a high risk of STI’s in victims of sexual abuse when:

The alleged offender is known to have an STI or to be at high risk for STI’s; and/or Symptoms and signs of an STI are detected in history and physical examination. The scheduling of examinations should be based on the history of assault or abuse. The following recommendation for scheduling examinations should serve as a general guide, the incident is recent, and a follow-up visit (approximately one week after the last sexual exposure) is needed to repeat the physical examination and to collect additional specimens, in order to allow sufficient time for infections to incubate.

Similarly, to allow sufficient time for antibodies to develop, an additional follow-up visit at approximately 12 weeks after the last sexual exposure is also necessary to collect blood for RPR or RDT-Tp test and HIV testing (after pre-test counselling with consent).

A single examination may be sufficient if the person has been abused over an extended period of time, and/or the last alleged episode of abuse has occurred.

STI prophylaxis or presumptive treatment for person who has been sexually assaulted or abused is described in the table below:

Presumptive treatment for Sexually Transmitted Infections in sexual abuse victims

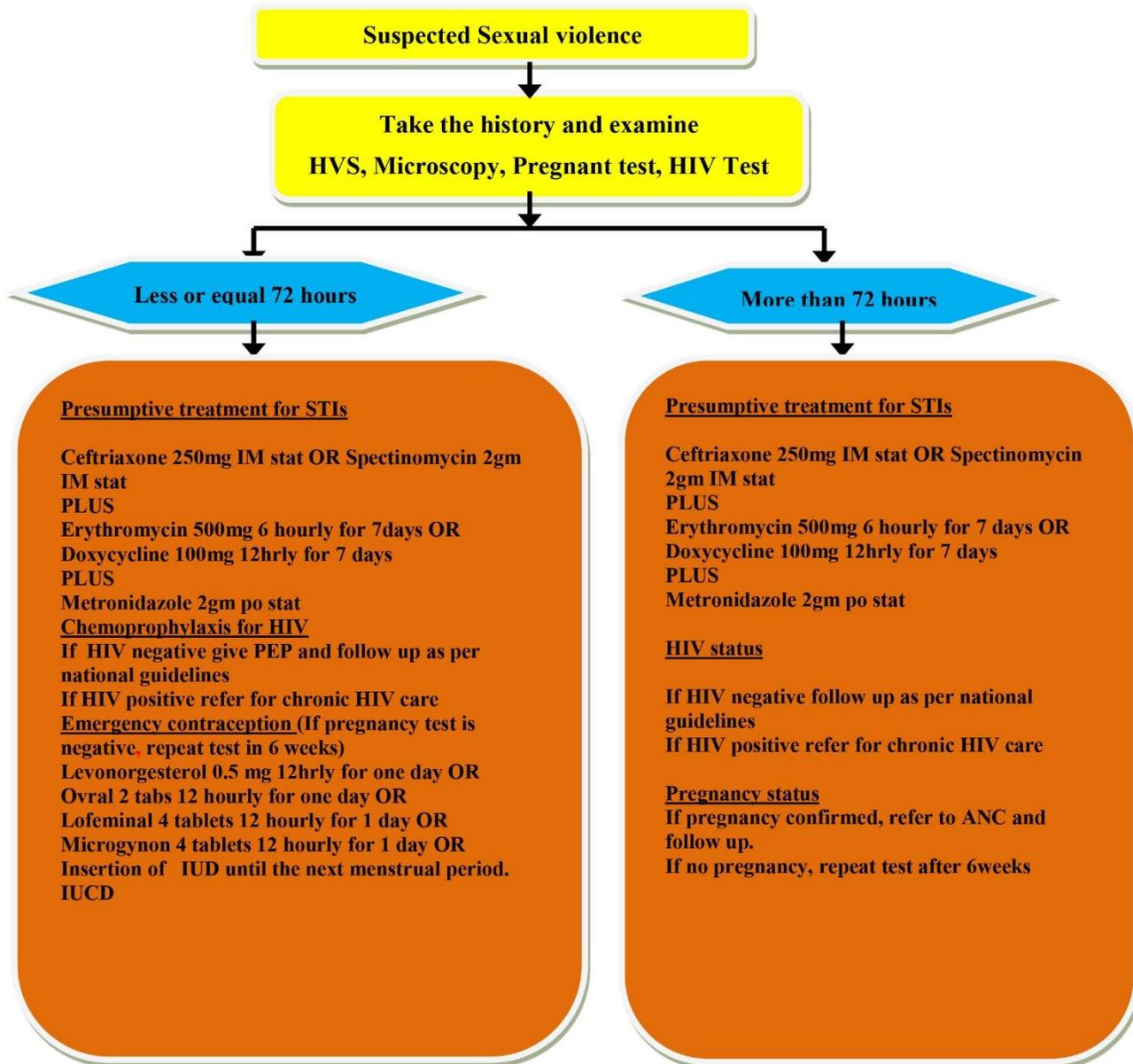
Include other measures:

Treatment				
Ceftriaxone 250mg IMI stat	OR	Cefixime 400mg stat	OR	Spectinomycin 2g IM stat
PLUS				
Azithromycin 1g IMI stat	OR	Doxycycline 100mg 12hrly x 7 days		
PLUS				
Metronidazole 2g po stat	OR	Metronidazole 400mg po 12hrly x 7 days		

- Tests for syphilis (RPR/RDT-Tp/VDRL) and HIV test;
- In female cases provide pregnancy test and emergency contraception, such as 4pills containing combination of levonorgestrel (a progesterone-like hormone) and ethinylestradiol (an estrogen).
- The first two pills should be taken as soon as possible (not more than 72 hours) after the unprotected intercourse.
- Two further pills should be taken 12 hours, but not more than 16 hours, after the first 2;
- Post-exposure prophylaxis for HIV infection according to national guidelines;
- Provide Hepatitis B vaccine, if not already immune.

7.5.1 See chart 11 syndromic treatment for management of survivors of sexual violence

Flowchart for management of survivors of sexual violence



- Advise on legal protection issues
 - Psychological support both at time of crisis and long term
 - Always treat physical injuries including administration of Tetanus toxoid.
- *** If pregnancy is proven to have resulted from the abuse therapeutic termination of pregnancy has to be considered after consultation with the relevant authorities

7.6 Genital Scabies

Definition

Genital scabies is caused by the Scabies mite (*Sarcoptes scabiei*), and is transmitted by close contact with an infected case, either sexual or non-sexual.

Clinical features

The main complaint with genital scabies is itching especially at night-time. On physical examination, erythematous papules can be seen mainly on the flexure surfaces of the body, such as the axillae, elbow, and wrist, inter-digital spaces, around the umbilicus, inner thighs and back of the knee. Finding burrows tunneled by the female mites in the inter-digital spaces is diagnostic of scabies infection.

Management

Recommended treatment regimens in adults

- Benzyl Benzoate (BB) 25% lotion, to be applied all over the body below the neck, after a bath, for two consecutive nights. Patient should bathe 24 hours after the second application, and have a change of clothing. Bed linen is to be washed properly and dried under sunlight. A second course of drug application may be given after 7~10 days, if required.

OR

- Gamma Benzene Hex chloride (GBH) 1% lotion or cream applied as a very thin film all over the body below the neck at night without taking a bath, to be washed off thoroughly next day morning, after 8~10 hours. The application of the drug should be repeated after 7days, if required. Clothes should be washed properly and dried under sunlight.

OR

- Permethrin 5% cream to be applied all over the body as a thin film and washed off after 8~10 hours. A second application is sometimes required.

OR

- Sulphur 6% in petrolatum applied to the entire body from the back down for 3 nights after a bath. Patients may bath before re-applying the drug and should bath 24 hours after the final application.

OR

- Crotamiton 10% cream to be applied to the entire body from the neck down at night for 2~5 nights and washed off thoroughly by taking a bath 24 hours after the last application.

Treatment in infants, children younger than 10 years, pregnant or lactating women

Gamma Benzene Hexachloride is contra-indicated in pregnant women, lactating mothers, infants and patients of scabies with secondary infection or with eczematization, as it increases the risk of absorption, leading to systemic toxicity, resulting in seizures and aplastic anaemia. It should be applied with caution in the elderly. It should not be applied near the eyes.

The recommended regimen is:

- Crotamiton 10% cream/ sulphur 6% in petrolatum/ Permethrin 5% cream to be applied as above.

Special instructions

- Sexual and close household contacts must be treated simultaneously, even those who are not complaining of any itching or do not have any skin lesions;

- Itching may persist for few weeks after adequate therapy. Oral antihistamine should be given for the relief of itching;
- A second course of local application is needed if there is no clinical improvement.

Cases for referral

If severe secondary infection, fever or swollen tender lymph nodes occur, refer to higher centre.

7.7 Pediculosis pubis

Description:

Pediculosis pubis or pubic lice infestation is caused by the pubic louse (*Phthirus pubis*). It can be transmitted during sexual contact.

Clinical features:

The symptoms and clinical signs of the infection include severe itching around the pubic area, often resulting in scratching. The scratch markings on the skin may become secondarily infected with bacterial infections. Although the lice and nits remain mostly confined to pubic and peri-anal areas, they may spread to thighs, axillae, chest, eyelashes eyebrows and other areas. The diagnosis is established by clinical examination, as the parasite (adult or nits) is visible to the naked eye. The mature lice are brown or bluish grey in colour and approximately the size of pinheads.

Management Recommended treatment regimens in adults

- Benzyl Benzoate (BB) 25% emulsion or lotion to be applied to all over the body below neck. Leave this on for 24hours, and then wash thoroughly.
OR
- Permethrin, 1% lotion, to be rubbed thoroughly with fingers into the infested and adjacent hairy areas and washed off after 10 - 20 minutes.

Treatment in infants:

NB Gamma Benzene Hexachloride is contra-indicated in pregnant women, lactating mothers and patients of pediculosis with secondary infection or with eczema, because it increases the risk of absorption, leading to systemic toxicity, and resulting in seizures and aplastic anaemia. It should not be applied near the eyes.

The recommended regimen is:

Permethrin 1% cream to be applied, as above.

Treatment for Pediculosis of eyelashes or eyebrows

Apply occlusive ophthalmic ointment or Vaseline to the eyelid margins daily for 10 days to smother lice and nits.

Special instructions

Re-treatment is indicated after 7 days if lice are found or eggs are observed at the hair-skin junction;

Advise that the genital area should be shaved;

Clothing or bed linen that may have been contaminated by the patient within the past two days should be washed and thoroughly dried;

Sexual and close household contacts must be treated simultaneously, even those who are not complaining of any itching or do not have any sign of parasite.

Cases for referral

If severe secondary infection, fever or swollen tender lymph nodes occur, refer to higher centre.

7.8 Human papilloma virus infection

Definition

Cervical cancer is one of the leading causes of cancer death in developing countries worldwide. The primary underlying cause is infection with one of more high-risk types of the human papilloma (HPV) virus, a sexually transmitted virus. HPV type 16 and 18 has been associated with 70% of all cervical cancers reported. The virus has also been implicated in other genital cancers: the attribute risk for 40% of penile cancer, 42% of anal cancer in men and 46% of vulvae and vaginal cancer is HPV type 16 and 18 infection. Low-risk HPV types 6 and 11 are rarely associated with cancer, but commonly cause ano-genital warts.

Pre-disposing factors

The key determinants of HPV infection for both men and women are sexual behaviors, including young age at sexual debut, high number of sexual partner(s), and having a partner who has multiple partners.

Smoking is a potential risk factor for cervical cancer. Most HPV infections (low- or high-risk) resolve spontaneously. However, high-risk HPV infections that persist may lead to the development of precancerous and invasive cancer.

It usually takes 10-20 years for precursor lesions caused by HPV to develop into invasive cancers.

Clinical features

Some types of HPV are warts, especially genital warts. Genital warts may appear as a small bump, cluster of lesions or sterm-like protrusions. They commonly affect the vulva, cervix, penis and scrotum. They may also appear around the the anus and in the groin. They can range in size and appearance and be flat, small, large, or cauliflower shaped and may be white or flesh tone.

Preventive measures

Effective prevention interventions against ano-genital cancer include screening for and treatment of pre-cancer and invasive cancer.

All women and men presenting at health facilities should be offered a complete ano-genital examination to determine whether they have this HPV-related cancer.

It is recommended that all sexually active women should have regular cervical cancer screening in accordance with the national guidelines.

Male circumcision should be offered to all uncircumcised male patients and partners. Smoking cessation interventions should be implemented at the individual and community levels.

Highly effective vaccines against high-risk types of HPV have recently become available.

7.9 Hepatitis B virus infection

Definition

Is an infectious disease caused by the hepatitis B virus (HBV) which affects the liver.

Transmission of hepatitis B virus results from exposure to infectious blood or body fluids. It is 50 to 100 times more infectious than HIV and can cause both acute and chronic infections. Hepatitis B virus infection can be transmitted through sexual intercourse. Other modes of transmission include vertical infection from mother to child during birth, blood transfusion with infected blood or blood products and through piercing of skin by contaminated needles or sharp instruments.



Clinical features

Many people have no symptoms during the initial infection. Some develop a rapid onset of sickness with vomiting, yellowish skin, feeling tired, dark urine and abdominal pain. Often these symptoms last a few weeks and rarely does the initial infection result in death.

Acute infection with hepatitis B virus is associated with acute viral hepatitis – an illness that begins with general ill-health, loss of appetite, nausea, vomiting, body aches, mild fever, and dark urine, and then progresses to development of jaundice. The illness lasts for a few weeks and then gradually improves in most affected people. A few people may have more severe liver disease (fulminant hepatic failure), and may die as a result. The infection may be entirely asymptomatic and may go unrecognized

Chronic infection with hepatitis B virus following primary hepatitis B infection in adults is usually sub-clinical and self-limiting. However, about 6-10% of infected patients may become chronic carriers, and about 25% of them may develop chronic active hepatitis. In about 15-30% of chronic hepatitis cases, cirrhosis of the liver may develop, which may involve a risk of developing hepatocellular carcinoma.

Preventive measures

- Hepatitis B vaccination for all children should be included as part of the national immunization schedules;
- Testing to verify effective immunization is recommended and further doses of vaccine are given to those who are not sufficiently immunized
- All service providers should be immunized to prevent occupational transmission of Hepatitis B infection;
- Sexual partners of the infected person should be screened with an HBsAg test and should be given Hepatitis B vaccine if they are not immune;
- Vaccination should also be considered for people at high risk of Sexually Transmitted Infections including men who have sex with men, intravenous drug users, sex workers and people who have been newly diagnosed with HIV.

Treatment

Acute hepatitis B infection does not usually require treatment and most adults clear the infection spontaneously. Early antiviral treatment may be required in less than 1% of people, whose infection takes a very aggressive course (fulminant hepatitis) or who are immuno-compromised. On the other hand, treatment of chronic infection may be necessary to reduce the risk of cirrhosis and liver cancer.

The World Health Organization recommended a combination of tenofovir (TDF) and entecavir as first line agents. Those with current cirrhosis are in most need of treatment. The use of interferon, which requires injections daily or thrice weekly, has been supplanted by long-acting PEGylated interferon, which is injected only once weekly.

8.0 STI'S IN MEN WHO HAVE SEX WITH MEN

STI's in men who have sex with men (MSM) are no different from STI's in the rest of the population, but the types of sexual practices determine the site where STI's occur. STI's in MSM can be transmitted by penile-anal contact, oro-anal contact, or fingering. Ano-genital symptoms can result due to penile-anal contact. Symptoms due to peri-anal ulcers (for example, herpes, chancroid and syphilis) and warts can cause pain, tenesmus, bleeding, and discharge. Oro-anal intercourse can lead to the transmission of a wide variety of other organisms normally transmitted by the feaco-oral route.

These include hepatitis A virus, shigella, salmonella, and giardia, resulting in gastro-intestinal symptoms. Anal intraepithelial neoplasia and invasive carcinoma may follow infection with high-risk subtypes of human papilloma virus. Oral and peri-oral symptoms can result because of oro-genital sexual activity. Oral STI's usually are asymptomatic. Neisseria gonorrhoea and Chlamydia infect the pharyngeal mucosa readily, but rarely cause pharyngeal infections. Syphilis, chancroid and herpes may cause ulcers on the tongue, oral mucosa, palate or lips. Warts may develop in and around the mouth.

Management of STI's in men who have sex with men

In general, the clinical management of STI's in MSM is the same as outlined elsewhere in this document earlier. The service provider should conduct rectal and oro-pharyngeal examinations when providing care to MSM. Additional infections common in MSM that are not covered in the flow charts include oral or pharyngeal and ano-rectal STI's, and are described below. Service providers should be aware that oral and anal STI's can also occur in female patients practicing oral or anal sex. Therefore, as a standard of care every patient (irrespective of sex or gender) should be examined thoroughly to exclude STI's in these sites.

Management of sexually transmitted pharyngitis

Clinically, it is difficult to diagnose gonococcal or chlamydial pharyngitis reliably. Additionally, service providers should be aware that pharyngeal gonorrhoea can be more difficult to clear than urethral infections. Other oro-pharyngeal STI's (such as herpes and warts) can often be detected by physical examination and can be managed according to the treatment guidelines. It is recommended that whenever a MSM patient is suffering from significant pharyngitis, and a history of unprotected oral sex makes pharyngeal gonococcal or chlamydial infection a likely risk, the patient should be treated syndromically

Treatment for sexually-transmitted Pharyngitis

- Ceftriaxone 250mg stat (to treat gonococcal infection)
PLUS
- Azithromycin, 1 g orally stat (to treat chlamydial infection)

Management of sexually transmitted ano-rectal infections or proctitis

Proctitis is an inflammation of the rectal wall and is the most common reaction to an ano-rectal STI (due to gonorrhoea, syphilis, chlamydia or herpes). Anyone whose immune system is impaired is at increased risk of developing proctitis, particularly from infections caused by the herpes simplex virus or cytomegalovirus, or from reactivation of an earlier infection.



Proctitis may be caused by *Salmonella* spp, *Shigella* spp, or *Entamoeba histolytica* as a part of gastroenteritis, which may manifest as diarrhoea with fever, anorexia, and abdominal cramps. Antibiotics that destroy normal intestinal bacteria and allow other bacteria to grow in their place may also cause proctitis. Herpes proctitis may be mistaken for the rectal manifestation of ulcerative colitis or Crohn's disease.

Proctitis typically causes painless bleeding or the passage of mucus (sometimes mistaken for diarrhoea) from the rectum. There may also be ineffectual straining to defecate ("tenesmus"), sometimes mistakenly described as "constipation" by patients. The anus and rectum may be intensely painful, with external and internal ulceration, when the cause is gonorrhoea, herpes, or cytomegalovirus infection. A proctoscopic examination (which should be done, if feasible) will reveal rectal pus, bleeding or ulceration.

All cases of proctitis in MSM should be treated for gonorrhoea and chlamydia infections. Symptoms of diarrhoea, bloody stools, abdominal cramping, nausea, and/or bloating may indicate giardia infection or amoebic dysentery. Most bacterial diarrheal diseases resolve spontaneously with oral rehydration and anti-diarrheal medication. Ano-rectal infections are a potent co-factor for HIV transmission. The service provider should counsel the patient on consistent and correct use of condoms during anal or oral sex to prevent STI's and HIV infections.

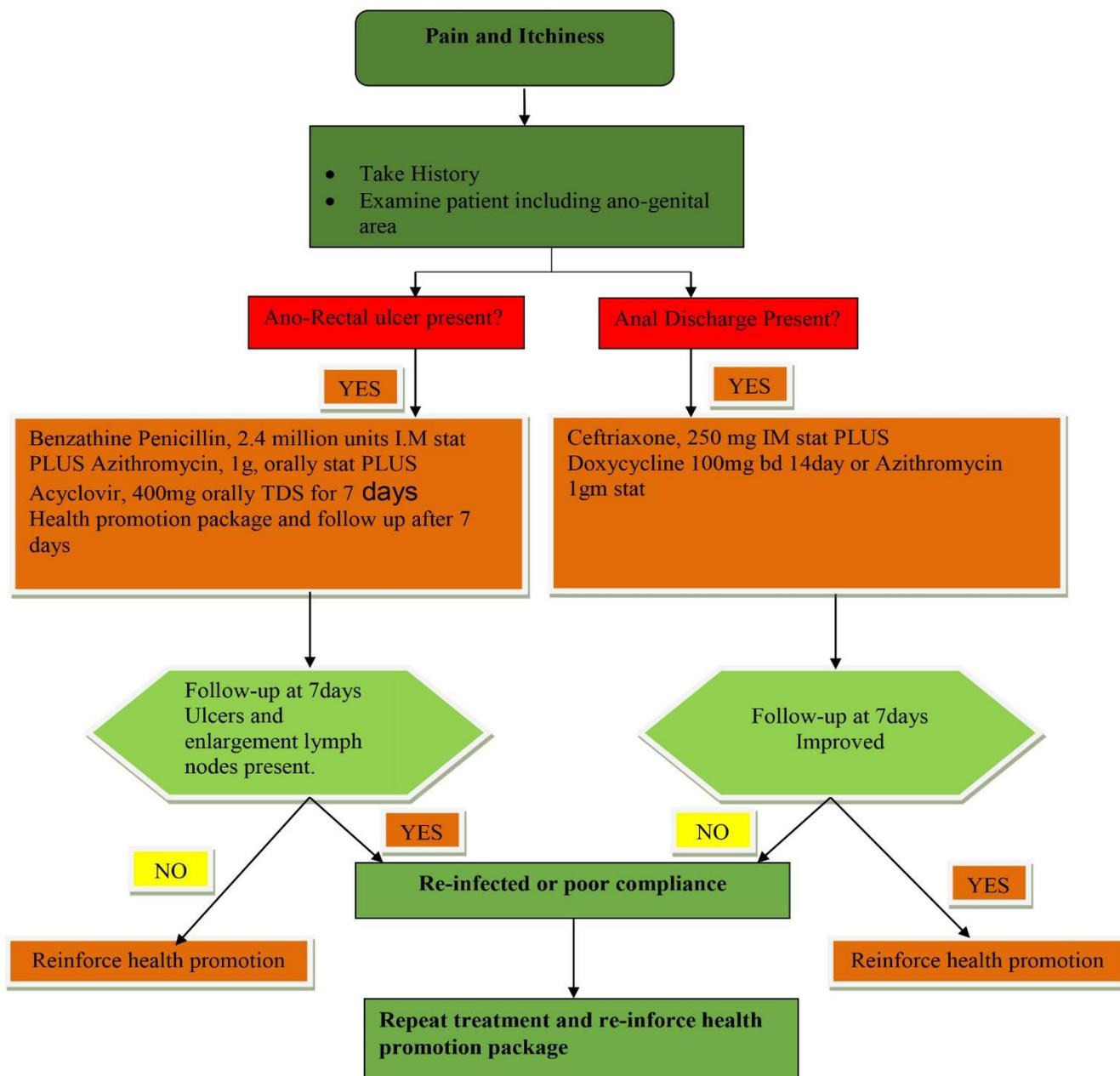
Treatment for sexually transmitted proctitis

- Ceftriaxone 250 mg IM stat (to treat gonococcal infection)
PLUS
- Azithromycin, 1 g orally stat (to treat chlamydial infection)

If symptoms of diarrhoea, bloody stools, abdominal cramping, nausea, and/or bloating are present: Add treatment for diarrhoea according to local epidemiology, including oral rehydration

8.1 See chart 12 for management of sexually transmitted ano-rectal infections or proctitis

Flowchart for management of sexually transmitted ano-rectal infections or proctitis



Health promotion package

- Educate, ensure compliance, and counsel on treatment.
- Promote abstinence or condom use during treatment.
- Promote correct and consistent condom use also provide condoms and lubricants.
- Issue one notification slip for each sexual partner and emphasize the importance of partner treatment.
- Offer HIV counselling and testing, as per Integrated HIV Guidelines.
- Offer voluntary medical male circumcision.
- Offer pre exposure prophylaxis as per guideline.

9.0 STI's IN MOBILE POPULATIONS

SADC governments are concerned that the movement of people between Member States is a major factor in the spread of HIV and other STI's. Today there is increasing recognition that mobile populations (including truck drivers or transport workers, migrant workers, domestic workers, farm workers, military personnel and refugees) are more vulnerable to STI's and HIV than non-migrating populations. They may have little or no access to health information, health services and means of STI or HIV prevention (such as condoms) or treatment of STI's. They may also be at higher risk due to additional factors such as discrimination, exploitation, harassment, and scant legal or social protection in the host community.

Management

STI clinical management in mobile populations is the same as outlined in the previous sections. Since the chances of loss to follow-up are stronger, single dose treatment administration under health worker supervision should be considered to ensure treatment compliance. Low-cost pre-packaged STI treatment kits (containing antibiotics for men with urethritis due to gonococcal, chlamydial and trichomonas infection, condoms and information on HIV and STI prevention) could be distributed. Other non-drug measures should also be implemented, such as:

- Development of work place programmes that cover STI treatment, peer education, condom distribution, dissemination of information, education and communication materials, HIV and AIDS awareness programmes and voluntary HIV counselling and testing;
- Incorporating HIV AND AIDS and STI topics into the general occupational health/safety training of workers;
- Ensuring condoms are available at every stage along migrants 'journeys (at places of origin, transit, destination and return);
- For transport workers or truck drivers, setting up "stop-over clinics" along major transport routes/highways and borders so that they can access STI treatment; and
- Encouraging policies that allow migrants to access free medical treatment at host countries primary healthcare facilities.

10.0 STI's IN PRISONERS AND DETAINEES

Addressing STI's as new detainees arrive can mitigate the possibility of transmission of STI's within detention and prison facilities.

In general, it is recommended that all new prisoners or detainees should have a thorough health assessment upon intake, and that identified STI's should be treated immediately.

Additionally, the new detainees should be offered HIV counseling and testing;

Condoms should be available in prisons and should be distributed among detainees to prevent infections. STI management and treatment in prisoners or detainees is the same as outlined in the previous sections.

11.0 STI's IN CHILDREN AND ADOLESCENTS

The occurrence of STI's in children with the exception of neonatal infections and congenital syphilis invariably indicates sexual abuse. Health workers therefore should arrange for emotional as well



as legal support for the child as part of the comprehensive management. In rare instances, however, chlamydial vaginitis acquired perinatally could manifest up to the age of three. Genital warts are not specific indicators of abuse unless supported by other evidence. Bacterial vaginitis has been diagnosed in children who have been abused, but its presence alone does not prove sexual abuse. Candidiasis is not a sexually transmitted infection in adults or children.

STI in adolescents place them at a higher risk of acquiring HIV. This is because the same biological and social factors that increase vulnerability to STI also increase vulnerability to HIV infection.

Biological factors

Mucosal tear during sexual act

- Underdeveloped vaginal epithelium, leading to interruption in mucosal integrity which could be easily infected by aetiologies of STI and HIV.

Social factors

- Multiple sexual partnerships
- Commercial sex
- Poor health seeking behaviour
- Low self-esteem
- Lack of youth friendly services

The following key issues are useful to remember during management of STI in adolescents

- Adolescents may have limited access to health care and may not seek care adequately. therefore, arrangements should be made to ensure compliance and future follow up.
- Partner notification and management is often difficult, thus risk of re-infection exists.
- Pregnancy should be considered and screening is pertinent in adolescent females.

Syndromes in children and adolescents are caused by similar pathogens as in adults and thus follow similar management principles. However, some medications used in adults may not be used for children. **See Annex 5 and 5.1**

11.1 Congenital syphilis

Congenital syphilis may occur if the pregnant mother has syphilis. However, the risk is minimal if she has been given penicillin during pregnancy.

- All infants of RPR/RDT-Tp/VDRL-positive mothers should be examined at birth and at 3 months intervals until it is confirmed that serological tests are, and remain, negative. Any antibody carried over from mother to baby usually disappears within 3 months of birth.
- It is recommended that all infants born to RPR/RDT-Tp/VDRL- should be treated with a single IM dose of Benzathine Penicillin, 50, 000 IU/kg, whether or not the mothers were treated during pregnancy (with or without penicillin).
- Hospitalization is recommended for all symptomatic babies born to mothers who were RPR/RDT-Tp/VDRL-positive.

Congenital syphilis is divided into early (first 2 years of life) and late (becomes apparent later in life).

Symptoms and signs of early congenital syphilis More commonly, a child aged 2 to 12 weeks is brought in with a history of failure to thrive and having a generalised bullous or papulosquamous rash. The rash may cover the entire body but usually affects the buttocks, thighs, face, palms and soles. Occasionally, flat grey condylomata lata lesions may be seen in body folds. There may be



generalised lymphadenopathy, enlargement of liver and spleen and anaemia. Since the infection is systemic, any organ of the body may be affected.

Diagnosis of latent (early or late) congenital syphilis the diagnosis of latent (early or late) congenital syphilis is usually made during routine testing of an asymptomatic child whose mother has a positive syphilis blood test. Such cases should be referred to a higher level for thorough examination, including cerebrospinal fluid examination to rule out latent neurosyphilis.

Management

Recommended regimens for early congenital syphilis (up to 2 years of age) Symptomatic infants and asymptomatic infants (up to two years of age) should be treated for early congenital syphilis:

- Aqueous Penicillin, 100,000~150,000 IU/kg/day IV in 2 divided doses daily for 10 days 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 Penicillin, 50,000 IU/kg IM in a single daily dose for 10 days.

Antimicrobials other than penicillin (such as Erythromycin) are not recommended for congenital syphilis, except in cases of allergy to penicillin. Tetracyclines should not be used in young children.

Recommended regimens for late congenital syphilis (more than 2 years duration)

- Aqueous Penicillin 200, 00 to 300,000 IU/kg/day IV or IM in divide doses (50,000IU/kg/dose every 4-6 hours) for 10-14 days.

For penicillin hypersensitive patients (after the first month of life):

- Erythromycin base / stearate, 7.5-12.5 mg/kg/day orally QID for 30 days.

11.3 Neonatal Herpes

Neonatal herpes Neonatal herpes may occur after birth in a neonate whose mother had active herpes lesions in her genitalia during labour. Signs and symptoms may include severe mucosal or skin rash, aseptic meningitis, encephalitis and it is frequently fatal. Suspected neonatal herpes case should be referred immediately to the higher level. Caesarean section for a pregnant mother having genital herpes lesions during the third trimester of pregnancy or at the time labour should be advised as a preventive measure.

11.4 Neonatal conjunctivitis

Neonatal conjunctivitis syndrome or Ophthalmia neonatorum Neonatal conjunctivitis syndrome or Ophthalmia neonatorum is one of the most common features of both N. gonorrhoeae and C. trachomatis neonatal infections.

- Routine application of tetracycline(1%) eye ointment to the eyes of all new-borns at the time of delivery is recommended as a preventive measure.

11.5 Management of STI's in very young children (beyond neonatal period and up to 10 years of age)

The identification of a sexually transmissible agent in a child beyond the neonatal period, in the vast majority of cases, is suggestive of sexual abuse. However, exceptions do exist: for example, rectal or genital infection with C. trachomatis in very young children may be caused by peri-natally



acquired infection, which may persist for up to 3 years. In addition, bacterial vaginosis and genital warts have been identified in both abused and non-abused children.

- When the only evidence of abuse is the isolation of an organism or the detection of antibodies to a sexually transmissible agent, findings should be carefully confirmed and considered.
- Service providers who suspect abuse must consider referral to specialized counselling, psychological and social support services for the complete management of these patients.
- STI prophylaxis or presumptive treatment for gonorrhoea and chlamydia in a sexually abused child is not recommended, since very young girls appear to be at lower risk of ascending infection than adolescents or adult women. However, in light of increased risk for HIV transmission, these children should be referred to the higher level for child-centred psychological counselling, as well as for further clinical management.
- STI's in pre-adolescents and adolescents (children 10 years and older) There are differences in the epidemiology of STI's in adolescents and adults, because adolescents are regarded as being more biologically susceptible to infection and at increased risk of morbidity. However, in the majority of cases, the presentation of STI's is similar to that seen in adults. The most important differences are as follows:
 - At the time of puberty and adolescence, the female genital tract undergoes changes in response to increasing levels of ovarian hormones. Along with anatomical and physiological changes, the vaginal epithelium begins to secrete mucus. The mucus secretion causes the adolescent girl to develop a white vaginal discharge, which is physiological. Generally, therefore, vaginal discharge is a poor predictor of the presence of either gonococcal or chlamydial infection.
 - In pre-pubescent girls, the columnar epithelium of the endo-cervical canal extends to the vaginal portion of the cervix. This cervical ectropion, which is normally present in 60–80% of sexually active adolescents, is associated with an increased risk of *C. trachomatis* infection and *N. gonorrhoea*. Exposure to oncogenic high- risk types of human papilloma virus enhances the risk of dysplasia and carcinoma at an early age.
 - Additionally, because cervical mucus production and humoral immunity are absent until ovulation begins, the risk of PID or cervical infections is higher in the sexually active adolescent exposed to infection as opposed to the adult woman.

11.6 Management of STI's in pre-adolescents and adolescents (children 10 years and older)

The management of STI's in pre-adolescents and adolescents is similar to that of adults. Lower abdominal pain or pelvic inflammatory disease in pre-adolescents and adolescents approximately 85% of gonococcal infection in females will be asymptomatic. However, there may be vulval itching, minor discharge, urethritis or proctitis. In pre-pubescent girls, a purulent vulvo-vaginitis may occur. Similarly, *C. trachomatis* infection is asymptomatic in the majority of cases. Symptoms that may occur are inter-menstrual bleeding, post-coital bleeding and an increase in vaginal secretions.

Vaginal discharge syndrome in pre-adolescents and adolescents *C. albicans* is uncommon in adolescents prior to puberty. If present, the adolescent may have a discharge, vulval itching, dyspareunia (painful intercourse), a peri-anal soreness or a fissuring at the introitus. Attacks of candida vulvitis may be cyclical in nature and correspond to menstruation. *B. Vaginitis* does not produce a vulvitis, and the adolescent will not complain of itching or soreness.



Genital ulcer syndrome in pre-adolescents and adolescents Presentation of GUS is the same in adolescents and adults. The stages of syphilis and serological responses are the same as in adults.

Genital warts in pre-adolescents and adolescents Warts present as condylomatous, papular or flat lesions, much the same as in adults. In most children, warts disappear spontaneously over months to three (3) years.

Other considerations in pre-adolescents and adolescents. Adolescents often lack information about existing services, such as where they are, what times they operate, how much they cost, etc. Even if they know about these services they are often reluctant to seek help for diagnosis and treatment. They are often embarrassed and worried about social stigmatization. They also fear negative reactions from service providers and are concerned about a lack of confidentiality.

Initiatives to make health services more adolescent-friendly and more responsive to their particular need should be considered;

Service providers dealing with children and adolescents must show respect and maintain confidentiality

12.0 STI'S IN PEOPLE LIVING WITH HIV

A strong relationship exists between STI's and HIV infection.

- STI's and HIV infection are associated with the same risk behaviors: unprotected sexual intercourse with multiple partners. Therefore, the same measures that prevent STI's also prevent sexual transmission of HIV infection;
- The presence of STI's has been found to facilitate the acquisition and transmission of HIV infection. Diseases that cause genital ulcers (such as syphilis, chancroid and genital herpes) can increase the risk of HIV transmission by up to 10-fold, and diseases causing discharge (especially gonorrhoea, chlamydial infection and trichomoniasis) can increase that risk by up to four-fold. Thus, early diagnosis and effective treatment of STI's can contribute significantly towards the reduction in HIV transmission; and
- There is mounting evidence that some STI pathogens are more virulent in the presence of HIV related immune-deficiency. This might have consequences for treatment recommendations for STI's, although more studies need to be carried out before changes can be proposed.

Management of STI's in people living with HIV

The following are requirements in suspected or confirmed HIV and STI co-infection in patients:

- HIV counseling and testing should be offered routinely for all STI's patients. HIV testing may be considered as a priority in patients with severe or treatment-failure cases of STI's, and should be done only after obtaining their consent, with proper pre-and post-test counselling and whilst ensuring confidentiality.
- The treatment regimens for various STI's are the same in STI-HIV co-infected cases, as well as for non HIV/STI cases.
- In some cases of STI's in the presence of HIV infection, larger doses and longer treatment duration of the drugs listed under the various STI syndromes and conditions may be required. Those patients should be followed up regularly for longer duration.

- Excessive use of anti-microbials should be avoided, since this is likely to lead to more rapid development of antibiotic resistance. Therefore, clinical judgment on proper and early referral is required.
- Although counseling of individual patients on risk reduction and prevention of transmission to partners should be done with all STI's patients, this is of vital importance for those infected with HIV.

Genital ulcer syndrome

Genital ulcer syndrome and HIV infection Patients with GUS should be encouraged to be tested for HIV infection because of the frequent association of the two diseases, and the implications for clinical assessment and management.

- Treatment for GUS in HIV infected patients is the same as for non-HIV patients. However, careful follow-up is necessary to ensure adequacy of treatment. These patients are more likely to experience extensive and more severe forms of ulcerations, treatment failure and ulcers heal more slowly. Increased dose and a more prolonged duration of therapy might be necessary.
- Patients should followed up weekly until there is complete clearance of lesions.
- Patients should be counseled that GUS facilitates the transmission of HIV.
- Because data are limited concerning the therapeutic efficacy of Ceftriaxone and Azithromycin in chancroid, some specialists suggest using Erythromycin 500 mg orally QID for 7 day regimen for treating chancroid ulcers in HIV-infected persons;
- In HIV patients with Donovanosis, Gentamicin, 1mg/kg intravenous (IV) TDS should be added if improvement is not evident within the first few days of therapy.

Herpes and HIV infection

Herpes and HIV infection Persistent and/or severe muco-cutaneous ulcerations involving large areas of peri-anal, scrotal or penile skin is indicative of HIV co-infection.

- Doses and duration of treatment with acyclovir should be increased;
- The recommended regimen is Acyclovir, 400mg orally 3–5 times daily until complete clinical healing of lesions.

Urethral discharge syndrome and HIV infection

Urethral discharge syndrome and HIV infection gonococcal, chlamydial and other non-gonococcal urethritis may facilitate HIV transmission, and patients should be made aware of this fact during counselling. Treatment is same as in a non-HIV patient.

Candidiasis and HIV infection

Candidiasis and HIV infection Candidiasis affecting multiple sites, including oral cavity, vulva and vagina, glans, and prepuce often occurs in HIV disease. Relapses of candidiasis are frequent. Prolonged treatment and suppressive therapy with imidazoles is often required.

- Fluconazole, 150 mg orally as a single dose weekly for 6 months OR
- Clotrimazole, 500mg intra-vaginally weekly for 6 months.

Genital warts and HIV infection

Genital warts and HIV infection there is high prevalence of genital warts in persons with HIV. The warts may be multifocal, extensive and poorly responsive to treatment, and there is a greater likelihood of malignant transformation.



13.0 BEHAVIOUR CHANGE COMMUNICATION FOR STI's MANAGEMENT

Behaviour change communication programmes that address STI's are designed to promote behaviours that prevent STI transmission in the community. It involves STI education for the individual patient/client, as well as for the entire community. The overall goal of most behaviour change communication programmes for STI prevention is to promote behaviours that prevent the spread of STI's in the community. These include:

- Prompt care seeking for STI symptoms at appropriate health facilities;
- Following treatment recommendations as prescribed by the service provider;
- Communicating with partners about the need to be treated;
- Practicing safer sex including consistent use of male and female condoms;
- Delaying sexual activity among adolescents; and
- Reducing the number of sexual partners.

13.1 Behavior change messages

Behavior change messages are similar to those for HIV, but should emphasize information about the complications and treatment of STI's. Upgrading service providers' knowledge and communication skills is usually a prerequisite to successful BCC interventions.

In order for the behavior change communication to be effective, there should be emphasis on:

- **Increased knowledge:** Behavior change communication should ensure that people have the basic facts about STI's in a language, visual medium or other media that they can understand and relate to. Effectiveness will motivate the target group to change their behaviors in positive ways.
- **Promotion of services for prevention and treatment:** Health-seeking behavior should be a priority in all behavior change communication activities so that the individuals go for preventive health checkups, early treatment and regular follow-ups. The health facility should collaborate with private practitioners, informal health sector such as traditional health practitioners, as they may be the preferred health providers for many STI patients, by establishing referral linkages or providing necessary trainings to them to ensure quality patient management.
- **Stimulation of community dialogue:** Facility staff should collaborate with groupings such as NGOs, CBOs, faith-based organizations and workplaces in the catchment area to enhance the promotion of healthy sexual behavior, early health-seeking behavior and improve outcome of partner notification and tracing. There should be encouragement of group and focused group discussions about the underlying factors, such as risk behaviors, risk settings and the environments that increase risk for STI's. Community dialogue will create a demand for information and services.
- **Promotion of advocacy:** Through advocacy, behavior change communication can ensure that policy makers and opinion leaders understand the necessity for STI interventions and approach them seriously. Advocacy should take place at all levels, from the primary to the tertiary level.

Community level

The health facility should sensitize and receive support on STI's and HIV AND AIDS issues from community health committees, civil society organizations, schools, workplaces and political leaders in the catchment area. Managers of cross-border province or district health facilities



should promote communication and sharing of surveillance information and management protocols for strengthening inter-country collaboration.

- Reduction of stigma and discrimination: Communication on STI's should address stigma and discrimination, and attempt to influence social responses from local government and policy makers.
- Facility staff should collaborate with social welfare departments (for example, to gain social assistance) and with other health- related public sectors, as appropriate.

14.0 QUALITY ASSURANCE:

Definition:

Quality assurance is a formal methodology designed to assess the quality of products or services that are provided. It includes formal review of care to identify problems in implementation, take corrective actions to remedy any deficiencies identified, and evaluate actions taken to rectify them. STI clinical quality assurance is a way of monitoring and evaluating the quality of STI services that are provided at health facilities to ensure that the services are in accordance with established guidelines, policies, norms and standards.

To achieve quality STI care services, each health facility can adopt the following approaches: Effective clinic operations and management, including:

- Adequate infrastructure; - Compliance with clinical management guidelines; Medicine, equipment's and commodity management; - Staff trainings in STI management; and - Client-friendly services (for example, adolescent- and youth-friendly).
- Promoting prevention activities, such as correct and consistent use of male condoms and female condoms, behavior change communication for safer sexual practices, partner management, HIV testing and counseling, male circumcision and cervical cancer screening;
- Linkages and referrals to specialists, emergency services, HIV care, reproductive health and other support services;
- Strong links with catchment population through community outreach activities;
- Collaboration in STI reporting, monitoring and evaluation;
- Periodic quality care audits;
- Ongoing supportive supervision of staff; and
- Operations research

14.1 Quality assurance approaches in STI care services

Clinic structure

- The internal structure of the clinic should, at a minimum, include the following to ensure physical privacy, auditory privacy and confidentiality of patient interviews and information.
- In the consultation room, the examination table should be positioned to provide adequate space at the end of the table to appropriately view the genitalia during speculum examination. An examination light should always be available for use in the consulting room
- In areas where a separate counseling room is not available, counseling should be provided in the consultation room.

Staff training and skills

Each facility should have staff with the proper training and skills to adequately perform the following functions:

- Health facility administration, patient registration, record-keeping and reporting;- Sexual and reproductive health history taking; clinical examination; patient management, including health promotion counselling and education; partner notification; and patient referral; - Syphilis and HIV testing;- Maintenance of clinical standards for STI management; and Procurement and maintenance of clinic supplies and medicines.
- Health facility should have enough qualified staff to ensure a smooth flow of patients through the facility, and to allow staff to give each patient enough time and attention without creating excessive waiting times for other patients;

Ethical standards:

- All treatments, procedures, testing and counseling for all patients should be performed to the highest professional standards, within the limitations of the service.
- The staff should ensure, above all, that they do no harm to the patient;
- The basic human rights of each patient must be respected and receive the utmost importance. Confidentiality is a cornerstone of high-quality sexual health clinical care.

Standard treatment guidelines

- It is essential that the STI treatment recommendations should be standardized and that staff comply with STI clinical management guidelines.
- The treatment recommendations should be adapted, based on the local epidemiological and antimicrobial sensitivity information.

Allergic reactions management

- All clinics that administer antibiotic medications (particularly via intramuscular or intravenous injections) should be adequately equipped with emergency resuscitation drugs and equipment's, and should be prepared for emergency management of an allergic or anaphylactic reaction.

14.2 Quality assurance approaches in STI care services

STI clinical quality assurance is a way of monitoring and evaluating the quality of STI services that are provided at health facilities to ensure that the services are in accordance with established guidelines, policies, norms and standards.

Service availability

In order to make health facilities more accessible and increase attendance by the target population, they should be open during times when the target population can conveniently access the services.

Staff training and skills

All staff should have appropriate qualifications and training to perform their assigned tasks. Service providers should be able to perform all the basic clinical procedures (including speculum and bimanual examinations) that are necessary to diagnose and manage STI patients.

Standard treatment guidelines:

- It is essential that the STI treatment recommendations should be standardized and that staff comply with STI clinical management guidelines.

- Flow charts that describe the standardized approach should be readily available for the clinic staff and should be on display in each room where treatments are prescribed to patients;
- Each clinic should also ensure that all essential patient management medicines, equipment's and consumables are adequate in quantity based on the patient load and maintained in good working order.

Referral network establishment

- Patients whose health problems cannot be addressed or managed appropriately by the services available at the facility should be referred to a higher-level service, such as a secondary or tertiary care hospital. Such higher-level referrals may include STI specialist care, general medical care, obstetrics/gynecological care, HIV/ART care services and other support services;
- The health facility should compile a list of recommended providers for referrals that includes names, addresses, telephone numbers and operating hours.

Monitoring and evaluation

Monitoring is the regular, methodical process of collecting data to determine the progress and achievements of a programme. The type of information collected may vary, but it is important that only the data required to obtain information that is needed for improving the overall quality of STI services should be collected. Specific monitoring parameters that can be collected fall into four (4) main categories:

- Service delivery; i.e documentation and reporting
- Staff performance;
- Client satisfaction and response;
- Resource needs and allocation.
- Indicator matrix for STI monitoring and evaluation core indicators.
- STI Framework monitoring and evaluation logic model

Evaluation involves analysing and assessing a programme, or part of a programme, to determine its quality and progress toward achieving its goals and objectives. Evaluations helps self-evaluate and subsequently improve own practices and the overall programme. Periodic quality-of-care audits and assessments of drug and supply management are examples of programme evaluation.

Operations research

For more effective STI programming, data are needed to determine whether the STI case management services offered at the facility are effective in reducing STI prevalence among people using the services and whether STI patterns have changed in response to the intervention. The data collected may be related to clinical diagnosis, treatment, laboratory and behavioural characteristics that can be collected at periodic intervals from a cohort or a sample of persons attending STI clinics. That is, such studies could help to determine whether preventive and curative services have any effect on the prevalence of sexually transmitted infections syndromes and other STI conditions among facility attendees.

Management of STI medications and commodities

The trust in STI management gained through proper clinical examination and patient counselling could be severely eroded when STI drugs or condoms are out of stock or equipments malfunction when the patient uses the health facility.

- By all means avoid shortages of drugs, equipments, test kits and other essential commodities.
- Ensure proper management of asymptomatic and symptomatic STI cases in the community.
- Patients sometimes consult informal practitioners who cannot assure the quality of care. It is therefore imperative to strengthen STI drug and commodity management systems at health facilities.

15.0 STI SURVEILLANCE

STI's surveillance is an epidemiological exercise by which the spread of STI's are monitored in order to establish patterns of progression. The main functions of STI surveillance is to record, observe, analyze, predict and understand STI trends to reduce the harm caused by STI's, and to increase the knowledge about the factors that contribute to such trends. It is an essential component for the STI and HIV prevention programs. Accurate data enable strategic planning and provide information for advocacy, programme design, prioritization of interventions, monitoring and evaluation, and to improve the quality of patient care and overall programme effectiveness. The following section provides practical guidance for strengthening the STI surveillance system to obtain meaningful data on STI's that can directly facilitate effective planning, execution and monitoring of STI control and prevention efforts at all facility levels. This section also describes common core surveillance indicators that can provide a countries picture that is needed for the periodic review of policies, guidelines and protocols on STI-related issues in Eswatini.

15.1 Prevalence assessment and monitoring:

The primary purposes of STI prevalence assessment and monitoring are to identify population subgroups with high prevalence of Sexually Transmitted Infections, and to monitor trends in STI prevalence among defined populations (for example, women who are routinely screened for syphilis during antenatal care).

Prevalence data are of great use in STI programme planning, management and evaluation because they can be used to:

- Identify subgroups that are at high risk for HIV infection (as evidenced by high rates of Sexually Transmitted Infections);
- Guide funding and resource allocation for STI and HIV prevention programmes;
- Monitor the effectiveness of STI and HIV prevention programmes; and
- Develop national estimates of Sexually Transmitted Infections.

15.2 Core components of STI surveillance system

The core components of a good STI surveillance system that provides the necessary information for effective control programs are:

Case reporting is the process whereby service providers or laboratories report cases of disease to public health authorities.

- STI's may be reported syndromically or etiologically, depending on the availability of laboratory tests in clinical care settings.

- Sentinel surveillance usually involves a select few healthcare facilities. A national control programme, preferably with the assistance of an epidemiologist and bio-statistician, should decide on the number of facilities to be involved in the STI surveillance. This will determine the number and level of service providers to be selected and trained.
The state of the HIV epidemic in Eswatini also has implications for activities and priorities for surveillance of Sexually Transmitted Infections.

Case reporting has several purposes:

- Assessing disease burden by providing incidence of recently acquired infections;
- Monitoring trends in incidence of recently acquired infections;
- Providing information required for management of patients and their sex partners;
- Providing information on major STI's, to assist in planning programme efforts; and
- Providing data for managing health services (for example, pharmaceutical distribution).

Prevalence assessment and monitoring

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- Identify subgroups that are at high risk for HIV infection (as evidenced by high rates of Sexually Transmitted Infections)
- Guide funding and resource allocation for STI and HIV prevention programmes;
- Monitor the effectiveness of STI and HIV prevention programmes; and
- Develop national estimates of Sexually Transmitted Infections.

Assessment of aetiology of infection

Periodic assessment of aetiologies of STI syndromes (such as urethral discharge, genital ulcer disease or vaginal discharge) provide data for guiding STI syndromic management, assist in the interpretation of syndromic case reports, and aid the assessment of disease burden due to specific pathogens. These data also may be used to evaluate syndromic management algorithms.

Antimicrobial resistance monitoring

In view of the substantial use of drugs for treatment of gonococcal infections, and increasing rates of resistance worldwide and in the SADC region, it is important for the country to monitor antimicrobial resistance in *Neisseria gonorrhoeae* as a core component of STI surveillance. The principal objective of monitoring antimicrobial resistance in *N. gonorrhoeae* is to obtain data necessary for developing guidelines for treatment and to detect newly emerging resistance.

- It is recommended that these should be conducted periodically every 3 to 5 years;

Special studies

Periodically, STI programmes shall perform special studies to address important STI surveillance issues that are not part of routine case reporting or prevalence assessments. Examples may include assessments of quality of care using mystery clients, or measuring incidence and prevalence of STI-related complications such as PID or ectopic pregnancy.

These studies can include estimation of the burden attributable to asymptomatic STI's, investigations for outbreaks of particular infections, such as syphilis in certain populations and geographical settings.

16.0 IMPLEMENTATION MECHANISM

Stakeholder analysis

Stakeholder role and Responsibilities
Government Ministries and Departments
Development partners
Implementing partners
Non-Governmental Organizations
Faith Based Organization
Alternates

Technical Working Group

Eswatini National HIV and AIDS Program (SNAP)
Sexual Reproductive Health Unit (SRHU)
National Pharmaceuticals
Central Medical Stores (CMS)
Eswatini Health Laboratory Services (SHLS)
School Health
Eswatini Nursing Council
Expanded Program on Immunization (EPI)
His Majesties Correctional Services (HMCS)
Blood Bank
National Public Health Matron
HMIS
Eswatini National Youth Council
Epidemiology Unit
Monitoring and Evaluation Unit (M&E)
Health Promotion Unit (HPU)
National Emergency Response Counsel for HIV and AIDS (NERCHA)
Eswatini Medical and Dental Association
World Health Organization (WHO)
UNFPA
UNODC
UNAIDS
UNICEF
Family life Association Eswatini FLAS
AHF
PSI
MSF
FHI 360
NATICC
University of Eswatini UNESWA, (academia)
Southern Africa Nazarene University
PEPFAR Funded Partners ICAP, EGPAF, URC, MSH, HC3

Financing Mechanism

Ministry Of Health Budget Allocation
PEPFAR



Global Fund
UN Agencies
World Bank
SADC
ESA
World Bank

Strategic Information Department

HMIS/ CMIS
M&E
Epidemiology
Research Unit

ANNEXES

Annex 1: Guide for clinical history taking in a STI case

Guide for clinical history taking in a STI case	
General Details	Age Sex Marital status Residence Occupation Telephone number or any other contact information
Present Illness	Presenting complaints and duration
If complaints of vaginal discharge	Last Menstrual Period (LMP)? Itching? Odour? Colour and consistency of discharge?
If a woman complaints of lower abdominal pain	Vaginal bleeding or discharge? Painful or difficult pregnancy or childbirth? Painful or difficult or irregular menstruation? LMP: Missed or overdue period? History of recent delivery or abortion? Painful vaginal intercourse? Fever?
If complaints of genital or peri-anal ulcer	Site? Painful? Recurrent? Appearance? Spontaneous onset? Pain and swelling in the inguinal region?
If urinary symptoms	Pain or burning while passing urine? Frequency? Discharge from urethra?
Other symptoms	Warts? Lumps or swellings? Skin rashes? Discharge from anus? Difficulty in defecation/painful defecation
Medical History	
Any past STI?	Type? Dates? Any treatment and response? Result of any prior tests?
Other illness?	Type? Dates? Any treatment and response? Result of tests? Has ever had an HIV test? If yes, when? If HIV- positive: Taking ARV? CD4 count?
Medications?	Recent or Current medications?

<p>Drug allergies?</p> <p>Drug and alcohol use?</p>	<p>History of allergies? Type of drug reactions?</p> <p>Name of drugs? Probe about penicillin if not spontaneous</p> <p>Patterns and frequency of use? Any injection drug use?</p>
<p>Sexual History</p>	<p>Whether sexually active?</p> <p>Date of last sexual intercourse?</p> <p>Sites of sexual exposure (i.e., vaginal, oral, anal)?</p> <p>Symptomatic partner?</p> <p>Number of sexual partners, any new partner?</p> <p>Condom use last sex?</p> <p>Condom use with regular partner/spouse? Condom use with other partners?</p> <p>Consistent condom use?</p> <p>Use of contraceptive methods?</p>

Annex 2: A detailed Sexual History

<p>Partners</p>	<ul style="list-style-type: none"> • Do you have sex with men, women, or both?" • "In the past 2 months, how many partners have you had sex with?" • "In the past 12 months, how many partners have you had sex with?" • "Is it possible that any of your sex partners in the past 12 months had sex with someone else while they were still in a sexual relationship with you?"
<p>Sexual Practices</p>	<ul style="list-style-type: none"> • To understand your risks for STI's, I need to understand the kind of sex you have had recently." • "Have you had vaginal sex, meaning 'penis in vagina sex'?" If yes, "Do you use condoms: never, sometimes, or always?" • "Have you had anal sex, meaning 'penis in rectum/anus sex'?" If yes, "Do you use condoms: never, sometimes, or always?" • "Have you had oral sex, meaning 'mouth on penis/vagina'?"
<p>For Condom Answers:</p>	<ul style="list-style-type: none"> • If "never": "Why don't you use condoms?" • If "sometimes": "In what situations (or with whom) do you use condoms?"
<p>Prevention of pregnancy</p>	<ul style="list-style-type: none"> • What are you doing to prevent pregnancy?"

Protection from STI's	<ul style="list-style-type: none"> • What do you do to protect yourself from STI's and HIV?"
Past history of STI's	<ul style="list-style-type: none"> • Have you ever had an STI?" • "Have any of your partners had an STI?" • Additional questions to identify HIV and viral hepatitis risk include: <ul style="list-style-type: none"> • "Have you or any of your partner's ever injected drugs?" • "Have your or any of your partners exchanged money or drugs for sex?" • "Is there anything else about your sexual practices that I need to know about?"

Annex 3: Standard health care safety precautions.

STANDARD UNIVERSAL PRECAUTIONS ENSURE PROTECTION FROM HOSPITAL ACQUIRED INFECTIONS	
WASH YOU HANDS	<ul style="list-style-type: none"> - Between patients contact and dry with paper towel. - Under running water using (preferable) liquid soap and or alcohol rub. - Before wearing and after removal of gloves. - After touching inanimate objects likely to be contaminated by blood and body fluid.
PROTECT YOURSELF	<ul style="list-style-type: none"> - Protective clothing such as (reusable/disposable) Gowns, laboratory coats, uniforms, Aprons, masks boots, etc, should be worn when there is a likelihood of getting soiled with blood spills or body fluid (secretions and excretion). - Wear gloves (both hands) before touching anything wet - broken skin, mucous membrane, waste blood or other body fluid soiled linen/instruments and contaminated waste material or before performing invasive procedures.
LINEN CARE	<ul style="list-style-type: none"> - Store fresh linen in a designed storage area and handle used linen in a manner that will reduce the transmission of infection. - Segregate soiled linen from non-soiled linen and extra precaution must be exercised in handling and transportation of the soiled linen.
DISINFECTION AND STERILIZATION	<ul style="list-style-type: none"> - Pre-disinfect clean and sterilize reusable instruments. - Use high level disinfect according to IPC guidelines to clean and disinfect surfaces and inanimate objects.
MANAGEMENT OF INOCULATION INJURIES	<ul style="list-style-type: none"> - Rinse the site of inoculation under running water and report to the supervisor immediately.

	- Follow the steps to complete care management from PEP guidelines
SAFETY IN HANDLING SHARPS	- Exercise caution when handling needles or other sharp devices or when cleaning or discarding pieces of equipment after the procedure - Avoid recapping, separating, bending or breaking used needles - Discard sharps in puncture - resistant containers immediately after use
MANAGEMENT OF HEALTH CARE WASTE	Waste must be categorized, segregated and disposed according to IPC standards - General Waste – BLACK BAG - High Risk Waste – YELLOW BAG - Treatable Waste – RED BAG
ISOLATION	Adhere to transmission based precautions for patients with documented or suspected infections or highly transmissible pathogens according to IPC isolation guideline.

Annex 4: Summary table of common STI syndromes, their causes and treatment recommended in Eswatini

STI Syndrome	Causal pathogen	Drugs
Urethral discharge	Neisseria Gonorrhoeae Chlamydia Trachomatis Trichomonas Vaginalis	Ceftriaxone, 250 mg I.M stat or Cefixime, 400 mg orally stat (to treat gonococcal infection) PLUS Azithromycin, 1 g orally stat (to treat chlamydial infections) PLUS Metronidazole, 2 g orally stat (to treat trichomonal infections)
Genital ulcer	T.pallidum H. Ducei Chancroid HSV-2 (Klebsiella granulomatis low prevalence in Eswatini)	Benzathine Penicillin*, 2.4 million units I.M stat, PLUS • Azithromycin, 1g orally stat; OR Ceftriaxone, 250mg I.M stat; OR Ciprofloxacin, 500mg orally BID for 3 days; OR Erythromycin, 500 mg orally QID for 7 days (to treat chancroid) PLUS • Acyclovir, 400mg orally TDS for 7 days (to treat genital herpes). NB: Penicillin-allergic patients treat with: Erythromycin 500mg 6 hourly for 14 days
Vaginal discharge	N. Gonorrhoeae Chamydia Trachomatis	Ceftriaxone, 250mg IM stat. Second-line: Spectinomycin 2g IM stat, OR Gentamicin 240mg IM stat. PLUS • Azithromycin, 1g orally stat PLUS • Metronidazole, 2g orally stat If candida is evident give six days course on clotrimazole pessaries

	T. Vaginalis	<p>Doxycycline 100mg 12 hourly for 7 days Metronidazole 2g stat*</p> <p><u>In pregnancy/during breast feeding:</u> Spectinomycin 2g stat Erythromycine 500mg 6 hourly for 7 days Metronidazole 2g stat**, *** If vulval oedema/curd-like discharge, erythema, excoriations present, add: Cotrimazole vaginal pessary 500mg stat inserted or 100mg 12 hourly for 3 days inserted or 200mg at night for 3 days</p>
Lower Abdominal pain	<p>Neisseria Gonorrhoeae</p> <p>Chlamidia trachomatis</p> <p>T. Vaginalis</p>	<ul style="list-style-type: none"> • Ceftriaxone, 250mg IM stat <p>PLUS</p> <ul style="list-style-type: none"> • Azithromycin, 1g orally weekly for 2 weeks <p>PLUS</p> <ul style="list-style-type: none"> • Metronidazole, 400mg orally BID for 7 to 14 days
Scrotal Swelling Syndrome	<p>Neisseria Gonorrhoeae</p> <p>Chlamidia trachomatis</p>	<p>Ceftriaxone 250mg IM stat or Spectinomycin 250mg IM stat</p> <p>And Doxycycline 100 mg 12 hourly for 7 days or Erythromycin 500mg 6 hourly for 7 days</p>
Inguinal bubo	<p>Haemophilus ducreyi</p> <p>Chlamidia trachomatis</p>	<p>Ciprofloxacin, 500 mg orally BID for 3 days OR Ceftriaxone, 250mg IM stat (to treat chancroid) PLUS Azithromycin, 1g orally stat and then 1g orally per week for 2 weeks (to treat both chancroid and LGV) OR Doxycycline, 100mg orally BID for 14 days (to treat LGV)</p>
Neonatal conjunctivitis	<p>Neisseria Gonorrhoeae</p> <p>Chlamidia trachomatis</p>	<p><u>Neonate</u> Irrigate eyes Spectinomycin 25mg/kg body weight (up to a maximum of 75mg) Plus Erythromycin syrup 6 hourly (50mg/kg/day) for 14 days</p> <p><u>Mother</u> Offer the health education and promotion package Ceftriaxone 250mg IM stat or Spectinomycin 2g IM stat Plus Erythromycin 500mg 6 hourly for 7 days</p> <p><u>Father</u> Offer the health education and promotion package Ceftriaxone 250mg IM stat or Spectinomycin 2g IM stat</p>

Plus Doxycycline 100 mg 12 hourly for 7 days

Annex 5: Precautions with penicillin administration

Precautions with penicillin administration The recommended and most effective treatment for syphilis is Benzathine Penicillin; all patients who present with genital ulcer syndrome and/or positive syphilis serology should be treated with penicillin, unless it is clear that the patient is allergic to the drug. Before treating a patient with penicillin, clinic staff must ask the patient whether he or she has a history of allergic reaction to penicillin. If the patient answers “yes,” staff should explore the issue by asking the following questions:

- What was the patient’s age the time of the reaction?
- What were the characteristics of the reaction?
- How long after beginning penicillin therapy did the reaction begin?
- How was the penicillin administered?
- What other medications was the patient taking and at what time?
- What happened when the penicillin was discontinued?
- Has the patient taken any antibiotics similar to penicillin (Amoxicillin, Ampicillin or Cephalosporins) and, if so, what were the reactions?

The patient can be said to have a strong history of penicillin allergy when he or she reports reactions such as anaphylaxis, angioedema/urticaria, pruritic rash and bronchospasm. Symptoms such as maculo-papular rash, gastrointestinal upset or other unknown reactions are less predictive of an allergy. If the history of penicillin hypersensitivity is unknown or not elicited, administer an intradermal injection of 0.03ml of penicillin (test dose) on the left forearm of the patient. Observe the patient for 30 minutes. The appearance of wheals and redness indicates a positive sensitivity test. Staff should be prepared to manage anaphylactic reaction even with the test dose.

Annex 6: Treatment table of pediatrics dosages for the main STI pathogens

Pathogen	Treatment
Bacterial infections	
<i>Neisseria gonorrhoeae</i>	Ceftriaxone 20-50mgs IM single dose Spectinomycin 25Mgs / Kg body weight [up to a maximum of 75mgs]
<i>Chlamydia trachomatis</i>	Erythromycin 50 mgs/kg, in divided doses, 6 hrly 7 days Azithromycin [1year and over] 8-11kgs; 62.5mg 12hrly 12-19kgs;125mgs 12hrly 20-29kgs;187mgs 12hrly 30-49kgs; 250mgs 12hrly

	7 days
<i>Chlamydia trachomatis</i> (strains L1-L3)	Erythromycin 50 mgs/kg , in divided doses ,6 hourly , 14 days
<i>Haemophilus ducreyi</i>	Ceftriaxone 20-50mgs IM single dose Erythromycin 50 mgs/kg , 6 hourly, in divided doses, 7 days
<i>Klebsiella (Calymmatobacterium) granulomatis</i>	Erythromycin 50 mgs/kg , 6 hrly, in divided doses, 14 days Azithromycin [1year and over] 8-11kgs; 62.5mg 12hrly 12-19kgs;125mgs 12hrly 20-29kgs;187mgs 12hrly 30-49kgs; 250mgs 12hrly Until the lesions get epithelialized, may take weeks
<i>Mycoplasma genitalium</i>	Erythromycin 50 mgs/kg , 6 hrly, in divided doses, for 7 days
<i>Ureaplasma urealyticum</i>	
Viral infections	
Human immunodeficiency virus (HIV)	Appropriate ART
Herpes simplex virus type 2 (HSV-2)	Initial episode; 2yrs and older Acyclovir 200mgs 5 hrly, 7 days Under 2 yrs Acyclovir 100mgs 5hrly ,7 days Subsequent episodes; above treatment for 5 days Suppressive therapy; Over 2yrs Acyclovir 200 mgs 12 hrly daily, Under 2yrs; Acyclovir 100mgs 12 hrly maximum 1 year
Hepatitis B virus (HBV)	Interferons Supportive therapy

Kaposi-sarcoma (KS) associated herpes virus (KSHV or Human Herpes virus type-8)	ART PLUS, Chemotherapy Radiotherapy, Liquid nitrogen
Protozoal infections	
<i>Trichomonas vaginalis</i>	Metronidazole 7mg/kg , 8 hrly, 7 days Tinidazole 50-75mgs single dose. Stat Can repeat once if necessary
Fungal infections	
<i>Candida albicans</i>	Fluconazole 150mgs single oral dose Nystatin vag. Pessarie [100.000units] daily, 14 days Clotrimazole vag. Pessaries 200mgs nocte , 3 days Clotrimazole vag.tablet 500mgs nocte [single dose] Miconazole vag. Pessary 200mgs nocte , 7 days Please note; Nystatin and Miconazole, pediatric doses not specified
Parasitic infestations	
<i>Phthirus pubis</i>	Benzyl Benzoate emulsion [BB cream], 25% emulsion 1% Gamma benzene hexachloride Crotomiton 10% ointment
<i>Sarcoptes scabiei</i>	Benzyl Benzoate emulsion [BB cream], 25% emulsion 1% Gamma benzene hexachloride Crotomiton 10% ointment

Annex 6.1 Syndromic treatment table of pediatrics dosages

Primary indication	First -line STI drugs	Alternative STI drugs
Genital herpes (HSV-2)	Initial episode: For 2 years and above: Acyclovir 200 mg 5-hourly for 7 days For under 2 years: Acyclovir 100 mg 5-hourly for 7 days Recurrent episode:	

	For 2 years and above: Acyclovir 200 mg 5-hourly for 5 days For under 2 years: Acyclovir 100 mg 5-hourly for 5 days Suppressive therapy: For 2 years and above: Acyclovir 200 mg orally BID (max. 1 year) For under 2 years: Acyclovir 100 mg orally BID (max. 1 year)	
GUS (chancroid)	Less than 45 kg: Azithromycin 20mg/kg (max. 1 g), orally stat More than 45 kg: Azithromycin 1 g, orally stat	Ceftriaxone 20-50 mg/kg IM stat
GUS (syphilis)	Benzathine Penicillin 600,000 -1.2 MU (50,000 units per kg) intramuscular injection stat	Erythromycin 50 mg/kg, QID in divided doses for 14 days Procaine Penicillin, 50,000 IU/kg IM OD for 14 days
UDS, cervicitis (gonorrhoea)	Less than 45 kg: Ceftriaxone 125 mg, IM stat More than 45 kg: Ceftriaxone 250 mg, IM stat	
UDS, cervicitis (chlamydia)	Less than 45 kg: Azithromycin 20mg/kg (max. 1 g), orally stat More than 45 kg: Azithromycin 1 g, orally stat	Less than 45 kg: Ceftriaxone 125 mg, IM stat More than 45 kg: Ceftriaxone 250 mg, IM stat
Vaginal candidiasis	Fluconazole 150 mg orally stat	Clotrimazole 500 mg vaginal pessary stat
Bacterial vaginosis, trichomoniasis	Less than 45 kg: Metronidazole 15 mg/kg orally TDS for 7 days More than 45 kg: Metronidazole 2 g, orally stat	Tinidazole 50-75 mg orally stat
Genital warts	Trichloroacetic acid 50 to 70%	Cryotherapy
Scabies	Permethrin 5% cream	Benzyl Benzoate 25% lotion (12.5% in young children)
Pubic lice	Permethrin 1% cream	Benzyl Benzoate 25% lotion (12.5% in young children)

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