



MANAGEMENT OF SEXUALLY TRANSMITTED INFECTIONS USING SYNDROMIC MANAGEMENT APPROACH

Guidelines for Service Providers

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Ministry of Health – Malawi



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Table of Contents

1. Introduction	4
2. Acknowledgements	7
3. The Reproductive Health Policy Statements	8
3.1. National Reproductive Health Programme.....	8
3.2. Reproductive Health Services Guidelines Principles	10
3.3. Policies On Cancer Of The Cervix	11
3.4. Policies On HIV/AIDS/STIs	11
3.5. Policies On Youth	12
3.6. Policies On Harmful Practices, Domestic And Sexual Violence	12
3.7. Policy On Infertility	12
3.8. Policy on Surveillance And Clinical Anti-Microbical Efficacy Studies	12
4. Syndromic management of STIs	13
4.1. Introduction.....	13
4.2. Areas of emphasis when using syndromic management approach	13
5. Health Workers Attitudes	15
6. STI client management	16
6.1 History taking.....	16
6.2. Risk assessment	18
6.3. Physical Examination.....	19
7. Education and Counselling	22
7.1. Counselling for HIV	24
8. Partner treatment	26
8.1 Partner notification slips	28
9. STIs in minors or rape/defilement victims	29
10. Harmful practices	31
11. Youth friendly services	31
12. Clinic requirements for providing STI services	33
13. Logistics of STI drugs, condoms and reagents	35
13.1. Essential STI Drugs List	35
13.2. The Supply Chain.....	35
13.3. Recording and Reporting.....	36
14. Monitoring, evaluation and supervision	37
15. Human resources	40

PART 2: SEXUALLY TRANSMITTED INFECTIONS	41
1. Common STIs not included in the flowcharts	42
1.1. Genital infection with Human Papilloma Virus (HPV)	42
1.2 Genital Warts	43
1.3 Cancer of the Cervix	45
1.4. Secondary syphilis	46
1.5 Latent Syphilis	47
1.6 Late Syphilis	48
1.7 Congenital Syphilis	49
2. Infertility	54
2.1. Infertility Management.....	55
3. Management of Multiple STI Syndromes	56
4. Other Sources of Information on STI control	56
 PART 3: FLOWCHARTS	 57
1. Genital Ulcer Disease Flowchart (GUD)	58
2. Urethral Discharge/dysuria Flowchart (UD)	61
3. Abnormal Vaginal Discharge Flowchart (AVD).....	64
4. Lower Abdominal Pain In Women Flowchart (LAP).....	67
5. Acute Scrotal Swelling Flowchart (SS).....	71
6. Inguinal Bubo Flowchart (BU).....	73
7. Balanitis Flowchart (BA)	76
8. Neonatal Conjunctivitis Flowchart (NC).....	78

1. Introduction

Sexually Transmitted Infections (STIs) cause a large proportion of the global burden of ill health. The World Health Organisation (WHO) estimates that over 340 million new cases of curable STIs such as syphilis, gonorrhoeae, chlamydia and trichomoniasis occurred in 1999. Failure to diagnose and treat STIs at an early stage may result in serious complications, sequelae and life threatening conditions, including infertility, foetal wastage, ectopic pregnancy, anogenital cancer and premature death, as well as low birth weight and *ophthalmia neonatorum* in infants.

The need for the control of Sexually Transmitted Infections (STI) has become more urgent since STIs are recognised as independent risk factors for HIV transmission. A person with STI has a much higher risk of *acquiring* HIV from an infected partner and a person infected with both HIV and another STI has much higher risk of *transmitting* HIV to an uninfected partner.

The risk of sexual transmission of HIV may be increased 5 to 10 times in the presence of and STI. While increased risk is highest for ulcerative diseases, non-ulcerative diseases are also known to increase the risk of acquiring or transmitting HIV during sexual contact due to an increase in the number of white blood cells (which have receptor sites for HIV) in the genital tract, and because genital inflammation may result in damage of genital epithelial tissues that can allow HIV to enter the body more easily.

HIV infection may complicate diagnosis and treatment of other STIs because HIV may change the patterns of disease or clinical manifestations of certain infections and may affect laboratory tests results. In people with HIV infection, STI symptoms may be more severe, the period of infectivity may be increased and standard treatments may fail. In Lilongwe Central Hospital, 45% of clients with STIs are HIV positive.

Studies in Malawi indicate that a high prevalence of STIs is found in most population groups, even among those usually considered to be at low risk. The national sentinel surveillance of 2005 indicated a drastic decline in the prevalence of syphilis in pregnant women.

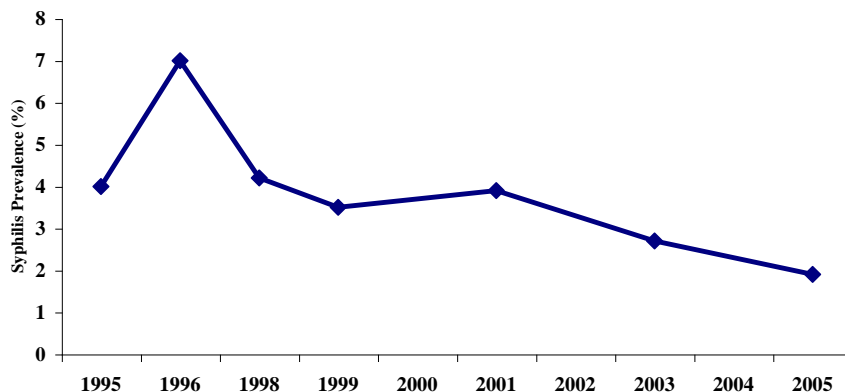


Figure 1: Syphilis Trends

However, geographical variations ranged from 0% in Gawanani, Kasina, Mzuzu and Thonje to 10.8% in Nsanje district.

The DHS 2004 describes that of the 5% of men who report having had sex with a prostitute in last 12 months, only 43% used a condom at last sex. Also, 15% of young women (age 15–24) and 14% of young men reported having had sex by the age of 15, only 16% of these young women and 26% of boys used a condom at first sex.

Studies from UNC project in Lilongwe Central Hospital (room 7C) show that in women, the most common STIs were HIV (34.0%), trichomoniasis (13.0%), bacterial vaginosis (8.0%), genital ulcer disease (7.2%), syphilis (3.0%), gonorrhoea (1.0%) and chlamydial infection (1.0%). Further research has shown that the aetiology of genital ulcers in Malawi is predominantly due to HSV infection, followed by chancroid and syphilis.

Evidence suggests that fifty to sixty percent of men presenting with STIs at a health facility have been ineffectively treated elsewhere, most frequently by a traditional healer.

The objectives of controlling STIs are:

- To interrupt the transmission of STIs
- To prevent the development of disease, complications and sequelae
- To reduce the transmission of HIV infection.

Malawi adopted the Syndromic Management Approach (SMA) in 1992 for the management of STIs, as recommended by the World Health Organisation. The guidelines have further been revised in 2002 by the National STI Taskforce. In 2006, the process of a new revision was commenced, taking into account the latest local, regional and global evidence and recommendations by WHO and the Centres for Disease Control and Prevention (CDC).

The main changes in this version of the guidelines are summarised as follows:

1. Where possible, treatment regimens have been altered to a single dose treatment, either by injection, mouth or in case of *vaginal candidiasis* vaginal pessary. This is to ensure treatment compliance and all single dose treatments should be regarded as DOTs (Direct Observed Treatment).
2. The treatment of Genital Ulcer Disease now routinely includes treatment for Herpes Simplex Virus (HSV), given the local and regional evidence.
3. The flowcharts for Urethral Discharge in men and Persistent/recurrent discharge in men have been merged into one; local evidence shows that trichomoniasis is common in men with UD, and should be treated immediately.
4. All STI flowcharts now include HIV testing and counselling, according to the National HTC guidelines.

These revised and improved guidelines will serve as a helpful reference to assist clinicians and nurses in providing efficient and effective treatment in STI management.

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3. The Reproductive Health Policy Statements

The Ministry of Health produced its first Sexual and Reproductive Health policy in 2001 as a way of consolidating all reproductive health issues that were previously implemented through a series of vertical programmes into one all encompassing plan. This has laid the necessary foundation for development of integrated service standards and policies.

Furthermore, the reproductive health (RH) policy is serving as a benchmark for enhancing and strengthening co-ordination among all health practitioners, health managers and policy makers, as well as protecting clients and service providers. It also provides justification for the allocation of resources.

3.1. National Reproductive Health Programme

The national RH programme supports and complies with the overarching health policies and systems and seeks to encourage integration of services as well as increasing equity and access to services. The RH programme has produced a national RH policy and national RH service delivery guidelines to guide planning and service delivery.

The purpose of the national RH programme, as per the national RH policy, is:

To promote through informed choice, safer reproductive health practices by men, women and young people, including increased use of high quality, accessible reproductive health services

The programme's goal is:

Improved sexual and reproductive health for all men, women and young people in Malawi, especially the vulnerable and underserved

The national RH programme includes the following components:

- Family planning
- Maternal and Neonatal Health (including management of unsafe abortion)
- Prevention and management of STI/HIV/AIDS
- Prevention, early detection & management of cervical, breast and prostate cancer
- Infertility
- Mitigation of harmful practices
- Obstetric fistula

It is the philosophy of the Ministry of Health that services be as integrated as possible, particularly in the area of RH. The broader RH agenda must be integrated into each specific RH service that is offered, so that there are no missed opportunities for holistically addressing the client's RH needs. Services should be packaged in such a way as to support health staff in delivering quality integrated RH services.

The RH programme has a number of objectives that direct the focus that STI services should assume, some of which are listed below:

- *To prevent and manage Sexually Transmitted Infections (STIs) including HIV/AIDS*
- *To prevent and manage infertility*
- *To increase awareness on early detection and management of cervical, breast and prostate cancers*
- *To strengthen the monitoring and evaluation systems*
- *To discourage harmful RH practices*
- *To prevent and provide support to victims of domestic violence and abuse*
- *To promote adequate development of responsible sexuality, permitting relations of equity and mutual respect between the genders and contributing to improving the quality of life of individuals*
- *To ensure that women, men and young people have access to the information, education, supplies and services needed to achieve good health and exercise their reproductive rights and responsibilities*
- *To provide health education to men, women and young people to utilise services*

- *To provide quality services that are integrated, gender sensitive, and responsive to the needs of clients*

3.2. Reproductive Health Services Guidelines Principles

- Sexual Rights are the rights of all people to decide freely and responsibly on all aspects of their sexuality, including protecting and promoting their sexual and reproductive health; free of discrimination, coercion or violence in their sexual lives and in all sexual decisions and expect and demand equality, full consent, mutual respect and shared responsibility in sexual relationships.
- All Sexual and Reproductive Health Strategies, guidelines and practice shall be evidence-based.
- All Sexual and Reproductive Health Services shall be provided in an integrated manner.
- No couple or individual shall be denied access to any Sexual and Reproductive Health commodities due to non-affordability or inability to pay, if such commodities are necessary to achieve optimum Sexual and Reproductive Health.
- Sexual and Reproductive Health training shall be conducted at both pre-service and in-service level.
- All Sexual and Reproductive Health services shall be implemented, monitored and evaluated in accordance with the Malawi National Sexual and Reproductive Health Guidelines /standards.
- Gender shall be mainstreamed in all Sexual and Reproductive Health services.
- Information on harmful Sexual and Reproductive Health practices shall be provided to the communities.
- Behavioural Change Communication shall be emphasized throughout the provision of Sexual and Reproductive Health Services.
- Infection prevention standards shall be maintained at all times and at all levels.
- All personnel providing Sexual and Reproductive Health services must demonstrate adherence and commitment to guidelines assignments, appropriately supervised and receive regular in-service training to update knowledge and skills and create positive attitude.
- Male involvement in Sexual and Reproductive Health issues shall be encouraged at all levels.
- All individuals or couples seeking Sexual and Reproductive Health services should undergo HIV counselling and testing, but have the option to decline.

- Sexual and Reproductive Health services should be provided at all levels by trained providers as per the Malawi National Reproductive Health Guidelines.
- Family Life Education should begin in families, primary school and continue at all levels of education with special effort being made to address out-of-school children and youth.
- Sexual and Reproductive Health policy, guidelines, service standards and procedure manuals shall be made available by the Ministry of Health in collaboration with stake holders for use in all health institutions (government and non-government) and shall be reviewed periodically.
- Government, NGOs, private medical practitioners and para-statal companies providing Sexual and Reproductive Health services shall be guided by the policies and practice standards set by the Ministry of Health .
- All government ministries and non-governmental organizations shall be encouraged to participate actively in Sexual and Reproductive Health related programmes and each institute shall have mandate to formally address Sexual and Reproductive Health issues.
- The Ministry of Health shall guide implementation of all Sexual and Reproductive Health Programme activities.
- Sexual and Reproductive Health services shall also be provided to those with disabilities.

3.3. Policies On Cancer Of The Cervix

- Services for cancers of reproductive organs (screening, referral, treatment) shall be available at all levels.
- Information Education and counselling services should be available on cancer of the cervix in all health facilities.

3.4. Policies On HIV/AIDS/STIs

- STI and HIV/AIDS services shall be available at all levels of the health care system and at community level.
- All antenatal women shall be screened and treated for syphilis and if infected, then treated along with their partners.
- Partner referral and treatment should be encouraged during STI management.
- Ensure that STI services are appropriate for and accessible to women, young people and other vulnerable groups
- Clients with STIs shall be managed using the syndromic management approach.
- All STI clients shall be offered HIV testing and counselling
- Registered Nurses and Nursing Midwifery Technicians shall be permitted to prescribe STI drugs following training in the Syndromic Management Approach.

- All STI research should comply with the National regulations and approved by either the National Health Sciences Research Committee or the College of Medicine Research Committee.
- STI services must be provided in complete privacy and confidentiality must be assured at all times.

3.5. Policies On Youth

- All Sexual and Reproductive Health services shall be youth friendly.
- Adolescents shall be provided with accurate and relevant information on Sexual and Reproductive Health and substance abuse.
- Service provision shall go beyond adolescents to include young people in the age range of 10–24 years.

3.6. Policies On Harmful Practices, Domestic And Sexual Violence

- Information on harmful practices and their effects shall be made available to all men, women and young people.
- All victims of domestic and sexual violence shall have access to legal entitlement course of law, HIV testing, counselling and other support services.

3.7. Policy On Infertility

- Infertility counselling and services shall be made available at all levels

3.8. Policy on Surveillance And Clinical Anti–Microbical Efficacy Studies

- Epidemiological surveillance of STIs, including clinical anti–microbical efficacy studies for monitoring of drug resistance, shall be conducted regularly in order to determine STI prevalence trends and appropriate therapy.

4. Syndromic management of STIs

4.1. Introduction

Traditional diagnosis of STIs has relied on identifying the organism causing the symptoms through sophisticated laboratory facilities. This places constraints on time and resources, increases costs and reduces access to treatment. Moreover, in Malawi, often such facilities are not readily available. As such, clients may not receive treatment in time, which results in continuing spread of the disease and increasing the risk of developing complications associated with infection.

The syndromic approach to STI management (SMA) is based on the fact that most common causes of STIs present signs and symptoms that can be grouped and used as a basis for treatment. Such groups of commonly occurring signs and symptoms are known as syndromes. For example in Malawi, urethral discharge is likely caused by *Chlamydia trachomatis*, *Neisseria gonorrhoeae* or *Trichomonas vaginalis*. Thus, the symptom of urethral discharge would be the basis for identifying the syndrome. The client would then be treated for the most common infections that might have caused that particular set of symptoms and signs. In the case of urethral discharge, for example, the treatment targets *Chlamydia trachomatis*, *Neisseria gonorrhoeae* and *Trichomonas vaginalis*.

In SMA flowcharts are used to guide health care providers in using SMA to manage the syndromes.

4.2. Areas of emphasis when using syndromic management approach

Although the syndromic management approach is effective, it should be borne in mind that there are a considerable number of infected persons that do not present with the recognised signs or symptoms and that some symptoms are difficult to recognise, hence the syndromic management approach requires:

- Extensive in-service training of service providers in order to increase their skills and knowledge in recognising STI-associated syndromes and managing clients according to clinical management protocols and flowchart
- Regular supportive supervision of implementing staff so as to sustain the necessary momentum for the providers to fully adopt syndromic management approach.
- Extensive orientation of managers and supervisors in health facilities, as well as other staff
- Sustained availability of the recommended drugs on an uninterrupted basis so that there is no room for substitution of drugs for treatment
- Continued epidemiological surveillance for STIs and drug sensitivity studies, in order to maintain anti-microbial efficacy, and by changing first line treatment when appropriate.

It should be realised that syndromic management approach is not without criticism; for instance clients may not be satisfied when they are treated ineffectively and hence, may find alternative modes or places for treatment. Furthermore, the SMA approach weighs towards over-treatment, rather than under-treatment, and this may cause drug resistance. Although these arguments are valid, it is important to understand that in a country like Malawi, where diagnostic services are limited, the only reliable way to manage STIs is through syndromic management approach.

5. Health Workers Attitudes

Many service providers are uncomfortable discussing sexuality with clients, or may not even perceive the need to do so, or are judgemental about certain sexual behaviours that are different from their own.

As service providers have been faced with the realities of the HIV epidemic and the critical role of sexual risk reduction behaviour, it has become clear that STIs and HIV cannot be addressed effectively without a frank and direct dialogue about sexuality and sexual practices. In fact, obtaining information about client's feelings and attitudes about sexuality forms a core component of assessing the need for appropriate health care.

Health care providers should be aware that the following issues can make sexual practises difficult to discuss:

- Cultural taboos: to discuss explicit sexual practices
- Discomfort: in both service provider and client
- Biases: perceptions about “the sort of clients who are infected with a STI”
- Personal values: allowing personal views and attitudes to interfere with their professional obligation to provide non-judgemental and respectful services to clients
- Lack of Knowledge: unfamiliarity with local preferences and customs

Service providers can improve their interaction with clients by becoming aware of their own personal biases, values and attitudes, and working to prevent them from interfering with the ability to provide non-judgemental services. Service providers should be trained to feel more comfortable addressing sexuality with clients and become aware of their own biases and judgements.

Improving the interaction between the service providers and the clients will ultimately help clients to reduce their risk of infection and will result in better quality services.

6. STI client management

Comprehensive case management of STIs, comprises of identification of the syndrome, treatment for the syndrome, education of the client, condom provision, HIV testing and counselling and adequate notification and management of sexual partners.

6.1 History taking

History taking and physical examination are the foundation of accurate treatment in the syndromic management of STIs. The history provides valuable information, which is subsequently used for prevention, counselling, partner notification and treatment. History-taking must, therefore, be within the context of overall management of the client.

It is important to note that in order to obtain a thorough history, the provider needs to gain the client's trust. This is particularly challenging with STI clients because of the nature of the infection and its mode of acquisition. Some clients will not be comfortable talking about sex while others may withhold information to protect the identity of sexual partners. To overcome such problems, the STI provider needs to work hard at establishing rapport with the client.

Below are some guiding questions which providers should use in order to obtain a thorough history from a client:

<p>General details:</p> <ul style="list-style-type: none">• What is your name?• how old are you?• How many children do you have• Where do you live?• How long have you been there?• Do you always stay there, or have you come from somewhere else• What is your occupation? <p>Symptoms:</p> <ul style="list-style-type: none">• What is troubling you?• When did this start? • How did it start? <p>Clients complaining of sores:</p> <ul style="list-style-type: none">• Is the sore painful?• Do you have pain in the groin?• Do you have swelling in the groin? <p>In Female clients:</p> <ul style="list-style-type: none">• Do you have pain in the lower abdomen?• Do you have pain during sexual intercourse?• Do you have unusual vaginal discharge?• When did you last have your menstrual period?• Was there anything unusual during this period?• Do you take any family planning methods?• How many pregnancies have you had, and what was their outcome?	<p>Medical History:</p> <ul style="list-style-type: none">* Have you ever had an STI before?* What STI did you have?* When was that? * Are you taking any medicine now?* what kind of medicines?* Are you allergic to any kind of medicines? <p>Sexual History:</p> <ul style="list-style-type: none">* When did you last have sex?* Was this with your spouse/partner or casual contact?* Does he/she have any symptoms? * In the last 3 months, how many partners have you had sex with?* Are you married or are with a regular partner?* Does he/she have any symptoms of STIs?* Did you use a condom last time you had sex?* Have you ever used a condom during sex?
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Privacy and Confidentiality are essential!!!

Privacy is defined as a space out of anyone else's sight and hearing where the client can raise his or her concerns and the service provider can counsel and examine the client without any interruptions.

6.2. Risk assessment

STI risk assessment involves using clients' responses to questions about symptoms of STIs, demographic characteristics and behaviour to gauge their risk of exposure to infection, and to help them perceive their own risk. Risk assessment can be used as part of prevention counselling, as a way to determine who should be tested or treated for STIs, or as an adjunct to SMA flowcharts.

The flowchart on Urethral Discharge has a risk assessment box; which states that a man is considered to have a positive risk assessment (i.e. is at high risk of infection) if he had sex without a condom in the two weeks before coming to the clinic. This is both having unprotected sex with his regular partner, spouse or wife, and during casual or commercial sex.

The flowchart on Abnormal Vaginal Discharge contains a risk assessment box for cervicitis: in sexually active women presenting with abnormal vaginal discharge, the following characteristics suggest that the woman may have cervicitis rather than vaginitis as a cause of the discharge:

1. The client's partner has urethral discharge or genital ulcers. If the client answers yes, she has a positive risk assessment, regardless of the next question.
2. the client answers yes to two or more of the following
 - i. She is younger than 25 years of age
 - ii. She has a single marital status
 - iii. She has had a new sexual partner in the 3 months preceding this visit
 - iv. She has had more than 1 sexual partner in the 3 months preceding this visit

Service providers should keep in mind the many factors that may influence a client's perception of his/her own risk, (especially in women) including the fact that the client him/herself may see him/herself as "free from risk" if he/she is monogamous, without recognising the risks posed by the partner's behaviour. Likewise, young people often do not perceive their risk of infection due to feelings of invulnerability and lack of future focus. All clients should have a risk assessment done before proceeding to physical examination.

6.3. Physical Examination

The physical examination gives the service provider a chance to confirm or rule out various syndromes. Before beginning the examination, the client must receive a clear explanation on what is going to be done and asked for his/her consent.

The client should be examined in good light and should be undressed sufficiently to expose the entire genital, inguinal and anal areas. A speculum examination is an integral part of the physical examination in women.

In both men and women, the complete examination should start with checking for lymphadenopathy in the anterior and posterior cervical, submental, suboccipital, axillary and epitrochlear areas. In addition, the skin of the chest, back, thighs, abdomen, buttocks, groin and genital area should be carefully inspected.

Examination in men should proceed as follows:

1. **General examination:** an inspection of the skin is carried out and any rash, sores, lumps, warts and discoloration are noted. Then palpation is carried out to determine the presence of enlargement of lymph nodes in the anterior and posterior cervical region, submental, suboccipital, axillary and epitrochlear areas
2. **Examination of the oral cavity:** The oral cavity should be carefully visualised with a torch for ulcers, candidiasis, leukoplakia, gingivitis, and lumps
3. **Examination of the penis:** first the foreskin should be retracted to look for redness, rash, discharge, warts and ulcers on the glans penis, then the urethra should be milked for discharge if an obvious urethral discharge is not seen
4. **Examination of the scrotum and testes for swelling and/or pain:** Both the scrotum and testes should be carefully palpated with the aim of ruling out any swelling and pain.
5. **Examination of the inguinal and femoral triangle lymph nodes:** The inguinal areas and the femoral triangles should be palpated to check for lymphadenopathy or lymphadenitis.

Examination in women should proceed as follows:

1. **General examination:** an inspection of the skin is carried out and any rash, sores, lumps, warts and discoloration are noted. Then palpation is carried out to determine the presence of enlargement of lymph nodes in the anterior and posterior cervical region, submental, suboccipital, axillary and epitrochlear areas
2. **Examination of the oral cavity:** The oral cavity should be carefully visualised with a torch for ulcers, candidiasis, leukoplakia, gingivitis, and lumps
3. **Examination of the abdomen:** The abdomen is inspected and any obvious lumps are noted. The abdomen is then palpated and the size of the liver and spleen and

the presence of any masses, tenderness, guarding and rebound tenderness is noted

4. **Examination of the inguinal and femoral triangle lymph nodes:** The inguinal areas and the femoral triangles should be palpated to check for lymphadenopathy or lymphadenitis.
5. **Examination of the vulva:** The labia should be separated, the vulva should be visually inspected for any lesions and the Bartholins glands should be milked for discharge
6. **Examination of the anus and perineum:** The anal area should be visually inspected for any lesions.
7. **Speculum examination:** The speculum should be inserted fully and gently opened in order to visualise the cervix; then gently withdrawn to visualise vaginal mucosa as it falls into place.
8. **Digital bimanual examination:** Physical examination in women is not complete without a a digital bimanual examination which will help to enlist cervical tenderness/excitation or adnexal masses. The digital bimanual examination, or vaginal examination, is carried out by inserting the index and middle fingers of one hand into the vagina and placing the other hand on the lower abdominal. The area between the examiner's two hands is palpated and tenderness and swelling and masses are noted. The cervix is moved gently to the side to detect cervical excitation tenderness

The colour and consistency of vaginal discharge is best determined by visual inspection or speculum examination. If speculum examination is not possible, inspection of the discharge found on the examiner's gloved finger following bimanual digital examination may be a substitute. The examiner should always use clean, disposable gloves for all physical examination procedures. Where gloves are not available, the patient should be referred.

7. Education and Counselling

After the physical examination, every STI client needs to be educated and counselled. Clients are educated on the nature of the disease, its modes of transmission and prevention, treatment options, treatment compliance and correct use of condoms. Counselling is a process in which one person helps another to solve a problem. The counsellor helps the client consider his or her options in a systematic manner. STI counselling involves a range of skills from listening to the client's explanation of how he/she may have become infected and what has led to risky behaviour, how the STI has affected his or her marriage or social life, as well as to helping the client make some decisions about behaviour change.

While education is the provision of correct information and correcting misconceptions, counselling is the main tool through which the service provider ensures that the client understands a variety of issues related to the STIs before he or she leaves the clinic. During the education and counselling session, the following ten issues should be discussed with every client. The counsellor needs not to dominate but rather to conduct the activity by checking what the client already knows and does:

1. The nature of the infection and possible complications, including increased risk of contracting or transmitting HIV
2. How the client became infected
3. The possibility of asymptomatic infection, particularly in women
4. The importance of treatment compliance to ensure cure
5. The importance of abstinence from unsafe sex
6. The importance of changing sexual behaviour and how to avoid engaging in risky practices and how to cope with a situation that may lead to unsafe practices

7. The need to return for the follow-up visit
8. How to use a condom
9. The importance of partner notification and treatment
10. Conducting a test for HIV infection and counselling, when information is provided

In syndromic management, there is additional difficulty in the case of vaginal discharge, since it sometimes is unclear whether or not the infection actually is an STI. The service provider should exercise great care in noting the colour, odour and consistency of the discharge and inform the client of a diagnosed STI only if it is unequivocally indicative. Otherwise the client should be informed of the possibility of other causes of discharge.

STI counselling aims at reducing the client's risk of further transmission of disease and educating him/her about safer sex. Counselling should particularly focus on incurable STIs, such as HIV/AIDS whereby the practise of preventive behaviour is the only hope in reducing the spread of the infection. It will therefore be necessary to emphasise on the following:

A: Abstinence in youth and adolescents

B: Being faithful to one partner

C: Condom use (for those who are unable to follow A or B)

Condom demonstration and the provision of condoms should be an integral part of comprehensive STI case management.

7.1. Counselling for HIV

The reason for providing HIV testing and counselling in the STI clinic is that STIs and HIV often occur together. A person with an STI who also is HIV positive has a much higher risk of transmitting the HIV virus to their sexual partners. A person with an STI but not infected with HIV has a much higher risk of becoming infected with HIV, if having sex with a HIV positive sexual partner. Lastly, STI signs and symptoms can be much more severe and difficult to diagnose and treat when a person is infected with HIV. As such, it is very important for STI patients to know their HIV status, in order to benefit from appropriate care.

HIV voluntary counselling and testing (VCT) has been shown to have a role in both HIV prevention and, for people with HIV infection, as an entry point to care. VCT provides people with an opportunity to learn and accept their HIV serostatus in a confidential environment with counselling and referral for ongoing emotional support and medical care. People who have been tested HIV positive can benefit from earlier appropriate medical care and interventions to prevent HIV-associated illnesses. Pregnant women who are aware of their HIV status can prevent transmission to their infants. Knowledge of HIV status can also help people to make decisions to protect themselves and their sexual partners from infection.

In order for clients to make informed decisions about HIV testing and to be equipped with the information they need to reduce their risk of HIV infection or transmission, STI service providers should make every effort to initiate HIV testing in the counselling session.

Prevention Counselling

HIV Prevention Counselling has three primary purposes:

- ensure client understanding of HIV transmission and testing
- explore risk behaviours and develop risk reduction plans
- link clients to care and support services

HIV prevention counselling is an important aspect during counselling of STI clients. Whether provided to individuals or couples, the counsellor's primary aim is to assist the client(s) with an understanding of HIV testing, HIV transmission and how they are personally at risk. This prevention intervention focuses on assessing and exploring an individual's risk behaviours and to help the client to draw up a realistic risk reduction plan.

Additional counselling that may be offered in relation to HIV, include emotional support in crisis and bereavement, assistance with important life decisions such as marriage or pregnancy, educational counselling such as nutrition, breastfeeding and "Positive Living".

Secondly, the service provider must ensure the client has basic HIV pre-test information.

Basic pre-test information to be introduced during counselling includes:

- Information regarding the HIV test, its benefits and consequences and the opportunity to consent to testing
- Basic facts about HIV/ AIDS including risks for transmission and how HIV can be prevented
- The importance of obtaining test results and specific instructions how to do so
- The meaning of test results, including implications of the "window period" in explicit, understandable language
- Where to obtain additional information about HIV and other STIs

The objective of the counselling session is to enhance the client's self perception of risk for HIV, and to provide basic HIV risk reduction information specific to client's risk. Specifically, the service provider needs to discuss the specifics of the most recent risk incident, to review risk behaviour and to discuss risk reduction experiences and concrete, achievable behaviour change steps that will reduce risk of HIV infection or transmission.

**HIV testing & counselling should be
offered to all STI clients**

8. Partner treatment

STI clients often have other social problems besides the STI. Such problems may be about their relationships with others in addition to their concerns about themselves. During counselling attempts should be made to discuss issues surrounding sexual partners. This discussion should be used to strengthen the prevention message.

Stigma and discrimination exist very strongly around STI infections, there is a fear to know and to disclose to others if one is found with an STI. There are concerns regarding the vulnerability of marginalised groups, such as women and young people.

Often counsellors find themselves in a dilemma when they come across clients who are not willing or able to notify their sexual partners, thereby risking re-infection and spreading the infection to others.

From a public health perspective, it is important that all partners of the client who have been in sexual contact with the client during or after infection are identified and that partner notification processes are initiated. This will:

- ensure that the partner receives treatment for possible STIs to avoid the adverse consequences of an STI;
- prevent the spread of the disease by the untreated partner, and
- ensure that the client is not re-infected after treatment

Although the service provider should at no time tell the client what to do; it is important that the service provider should persuasively assist the client in selecting the best way of telling his or her various partners.

Partner notification, taking into account voluntariness and confidentiality encourages people to seek treatment for STIs. It does this by establishing a climate of trust between the health care provider and those who need STI services. There are two methods of partner notification outlined in these guidelines:

1. Source referral (Passive notification): Clients are encouraged to counsel their partners concerning possible infection with STIs including HIV. This process is without the direct involvement of the health care provider.
2. Partner referral (Provider notification): STI clients give the names of his/her sexual partner(s) to a health care provider, who then in confidence counsels the partners directly

8.1 Partner notification slips

Partner notification slips should be provided to the client in order for him/her to give to all his/her sexual partners. It is possible the client has more than 1 sexual partner, and therefore should be given more than 1 notification slip.

213101	213101
Name:	Chonde bwelani ndi kalata iyi mwansanga ku chipatala cha
Sex
Age	(Chonde zani luwilo na kalata iyi ku chipatala cha)
Syndrome
.....	CLASSIF
Date	PATIENT NO

Above is an image of the partner notification slip. The left part remains in the booklet and contains sensitive information such as name and syndrome. To ensure confidentiality, it is therefore required that the booklet to be kept in a safe place, preferably in a locked drawer.

The right part is torn out the booklet and handed to the client, who must in turn give it to his/her sexual partner. On the slip, the health facility where the partner must return to is indicated as well as the syndrome under CLASSIF; (please see the inside of the booklet for the abbreviated syndromes) and the patient record number from the HMIS or STI register.

It must be stressed that all partner referrals are treated with great discretion and confidentiality. Ideally, the partner will go through the process of history taking, risk assessment and physical examination to check for signs and symptoms of other STIs and undergo a full counselling session. The partner should also be given partner notification slips for his/her other sexual partners.

9. STIs in minors or rape/defilement victims

Sexual abuse of children is a serious medical and social problem, requiring the attention and skills of service providers who deliver social and health services. The treatment of child-victims is an important aspect of any comprehensive health care delivery system.

Service providers need to be aware of the possible link between STIs and sexual abuse in children and adolescents. As a rule of thumb, children and adolescents with STIs should not be assumed to have acquired infection from non-sexual contact. During history taking, special attention needs to be put at enlisting full details on what happened. It is often necessary to consult the child/adolescent away from the escorting guardian unless they are so shaken that this is not possible.

In children, cases of sexual abuse of both sexes are probably far more widespread than is commonly recognised. Most cases involve relatives, friends and other adults in close and legitimate contact with the child. Health workers who suspect abuse must refer to the Ministry of Health guidelines on the Management of Sexual Assault and Rape (2005) to proper management of the victim.

Due to the complexity of the required examination when rape or defilement is suspected, it is recommended that all such examination should be conducted using the Medical Examination forms described in the Guidelines on the Management of Sexual Assault and Rape (2005).

Management of children and adolescents victims of sexual assault & rape

1

- Assess and treat serious injuries first
- Obtain verbal consent to conduct physical examination
- Take full history and document all findings (use appendix 2 – “examination record” as recording framework)
- Conduct full physical examination and document all findings
- Document all facts regarding the assault

2

Manage physical effects of the assault such as wounds and bruises – including antibiotics to prevent wound infection, tetanus booster if required, medication for pain relief or anxiety

3

Provide emergency contraception if the victim has started menarce and presents within 72 hours post-assault

- Postinor-2 – take 1 tablet orally, to be repeated after 12 hours
- or
- Lo-Femenal 4 tabs to be repeated after 12 hours

4

Treat presumptively for STIs (or conduct laboratory investigations if available):

- Benzathine Penicillin < 25 kg: 600,000 IU stat.
> 25 kg 1,200,000 IU stat
- Gentamicin 6 mg/kg single dose
- Erythromycin 12.5 mg/kg every 6 hours for 7 days
- Metronidazole 5 mg/kg every 8 hours for 7 days

5

- Provide HIV counselling and Testing
- Conduct a HB baseline reading (if available)
- *If the victim presents within 72 hours of penetrative assault, and is HIV negative upon initial testing, and consents to PEP treatment -*
- Provide HIV PEP
- *If the victim has HB ≤ 8 g/dl Duovir must be replaced with LamivirS*

Duovir - BD * 30 days OR ELSE Lamivir S - BD * 30 days	
< 14 kg - ¼ tablet	25-35 kg – ¾ tablet
15- 24 kg – ½ tablet	> 35 kg – 1 tablet

6

- Provide counselling on post-traumatic stress to victim and guardian
- Assess safety of the victim
- Refer to other support services, such as the Victim Support Unit in the Police

7

- Advise on dates for follow up visits
- Record Findings and treatment in “Examination Record” and provide copy to the victim for submission to the police, if appropriate
- Record all findings and treatment in health passport

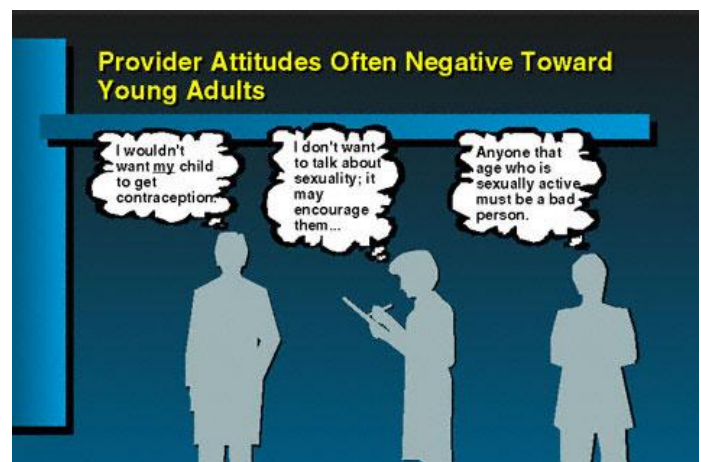
10. Harmful practices

The following harmful practises can endanger the lives of people and lead to disease, disability and death and therefore should be discouraged during counselling:

- Inheritance of a wife or husband
- Practise of Fisi (hiring of a man for sex and conception)
- Death rituals (hiring of a man for the widow to drive out the spirits)
- Use of traditional herbs to induce labour
- Insertion of herbs or plants in the vagina for dry sex
- Performance of traditional circumcision under unsterile conditions
- Male or female prostitution
- Postpartum abstinence which predisposes a man to promiscuity
- Traditional treatment of genital warts and haemorrhoids (eg. By cutting)
- Polygamy
- Kuchotsa Fumbi (sex without consent after first menarche for initiation)

11. Youth friendly services

It is reported that young people in Malawi do not have adequate nor equitable access to Sexual and Reproductive Health (SRH) services. Prevailing health problems facing young people include:



Sexually Transmitted Infections, HIV and AIDS, adolescent pregnancies, nutrition inadequacies, drug and alcohol abuses and mental disorders.

Determinants associated with health problems young people face have been identified as:

- Provision of inadequate and inappropriate services to young people
- Poor client–provider relationship at health facilities
- Inadequate human and financial resources to scale up effective YFHS interventions
- Lack of information available to young people regarding sexuality and services offered at YFHS

When providing STI services to the youth, it is important to note that youth are just beginning to learn about sexuality and may be embarrassed or hesitant to talk about it. They may be dealing with a wide range of issues related to their sexuality, some of which can be very sensitive, such as peer pressure, sexual identity, sexual capability or sexual coercion. By using good communication skills, providers can offer youth the opportunity to express and understand their feelings about this complex subject. This in turn can result in healthy sexuality and more responsible sexual behaviour, which can prevent STIs.

Good communication skills include "reflective listening," where the provider paraphrases a statement or question and repeats it back to the youth. This can show understanding of the words, as well as concerns and feelings. Also, open–ended questions, which allow youth to talk freely, should be used. Positive body language, such as nodding to indicate that the provider is paying attention, is also important.

Providers can better communicate with youth by being sincere, honest, open–minded, non–judgmental, maintaining privacy and confidentiality. It is helpful to show respect, using a sense of humour, and show that they really care about the young person's situation.

Confidentiality is very important in serving youth. Where possible, a young person needs to be assured that information discussed will not be revealed to others, including parents or any relatives.

It is important to realise that sex education for the youth has been shown to result in delayed sexual activity and in some cases delay first sexual intercourse. Also, beginning sex education before youth initiate sexual activity can help them develop healthy approaches to sexual behaviour before they establish unhealthy practices.

***Services for the youth need to be where the youth are
and be well designed.
Long waiting times, impersonal staff or judgemental providers
may easily discourage youth***

12. Clinic requirements for providing STI services

In order to provide basic STI services, a health facility must have a private room where examination and counselling can take place.

The requirements for providing STI services are:

1. Examination gloves
2. Examination couch with mackintosh and examination light
3. Specula
4. Infection prevention materials
5. Table and chairs
6. Partner notification slips
7. Condoms & Demopen
8. STI & HIV IEC materials

All infection prevention measures must be in place, according to the Infection Prevention Standards (MoH 2002).

This includes:

- Every person (client or staff) is considered potentially infectious
- Hand washing is the most practical procedure to prevent cross infection
- Wear gloves before touching broken skin, mucous membranes, blood body fluids, secretions or excretions – NEVER RE-USE DISPOSABLE GLOVES
- Use goggles, face masks and aprons if splashes and spills of blood, or body fluids are anticipated
- Proper disposal of medical waste
- Needles and Syringes should only be used once and should be disposed in a sharps-container. Needles must never be re-capped.

For further information regarding infection prevention, please refer to Malawi Prescribers Companion, Chapter 14, page 126 and the National Infection Prevention Standards 2002.

13. Logistics of STI drugs, condoms and reagents

13.1. Essential STI Drugs List

In order to ensure that clients with STIs are adequately treated, a small number of drugs considered to be essential for managing STIs should be available in an uninterrupted manner at all health facilities where clients with STIs seek care. The list of drugs will need to be reviewed periodically. Currently, based on available evidence, it is recommended that the following list of essential STI drugs be available at all health facilities:

1. Benzathine penicillin for intramuscular injection
2. Gentamicin for intramuscular injection
3. Ciprofloxacin 500mg tablets/capsules
4. Acyclovir 400 or 800mg tablets/capsules
5. Doxycycline 100mg tablets/capsules
6. Erythromycin 500mg tablets/capsules
7. Erythromycin paediatric suspension
8. Metronidazole 200 mg tablets
9. Clotrimazole 500mg vaginal pessaries
10. Gentian violet 1% solution
11. Podophyllin lotion 20%
12. Tetracycline eye ointment

In addition the following drugs should be available as second-line treatment recommendations:

1. Azithromycin 2g tablets/capsules
2. Ceftriaxone for intramuscular injection
3. Fluconazole 150mg tablets/capsules

13.2. The Supply Chain

Drugs are made available through Central Medical Stores (CMS). The Regional Medical Stores (RMS) are allocated shipments based on consumption trends. All service delivery points place orders with RMS through the LMIS 01 form, and drugs are delivered directly to each service delivery point. The person in charge of drugs stocks is responsible for

completing the LMIS 01A form, while the district pharmacy is responsible for calculating the quantity required and sending the forms to RMS. Christian Health Association of Malawi (CHAM) facilities also receive their supplies through District Health Office or directly through CHAM Secretariat or RMS.

Each facility is required to follow the guidelines on the management of drugs as detailed in the Logistics Management Information System (LMIS). Facilities will only be re-supplied with STI drugs after a LMIS 01A report is submitted to the DHO pharmacy. The drug management system enforces the **NO REPORT, NO DRUG** rule to encourage facilities to report on drug consumption, losses/adjustments and stock on hand. The officer in charge collects the information on how much of each drug has been used at the health centre and the pharmacy technician collects it at the district hospital.

13.3. Recording and Reporting

All STI providers are required to account for the drugs used in relation to the STI syndromes treated through the LMIS forms.

The service provider in the treatment room completes the patient register. Guidelines on how to complete this register are contained in the Health Management Information System (HMIS) handbook. The information is reported under indicator 31 (STI cases) on the HMIS report.

Syndrome prevalence information will be collected from sentinel surveillance sites through the HMIS. It is further recommended that in addition to the information collected under indicator 31 a tally sheet is used to collect information on episodes of STI syndromes managed at each facility. This tally sheet is completed in addition to the

information already being collected. The tally sheet is completed by service providers at the time of the consultation. An example of the tally sheet is given on the following page and each month the tally sheet is collected by the in-charge or person designated to carry out this task from each clinician. The tally sheet is simple to complete and as will be seen the health care provider simply places a line through a circle in the appropriate row and column indicating the age group, gender and clinical syndrome/problem that the patient has come in with. Data are collated locally and then the sheets are sent to the district health office for further analysis.

Every STI client must have a health passport where information about the type of service given is recorded. The passport also contains personal information about the client.

14. Monitoring, evaluation and supervision

The purpose of monitoring is to ensure that work is progressing as planned and to anticipate or detect problems in implementation. Monitoring provides managers with information about the level of achievement measured according to standards of performance, and allows them to assess implementation by comparing actual progress to expenditure. Monitoring focuses on implementation (adequate supplies, appropriate training, performance of service providers) rather than on immediate outcomes (such as changes in knowledge or behaviour, changes in the health system) or impact (such as decrease in morbidity or improvement in health). It is an ongoing process to assess the Sexual and Reproductive Health Programme, to make modifications and improvements if so required and detect shortfalls. Monitoring is normally done concurrently with supervision.

Supervision is a two-way process by which the supervisor observes and keeps in touch with the events, which enables the service provider to give feedback, discuss and be

reassured and supported. Supervision is the most important aspect of monitoring in that it assesses performance and outputs in the light of the situation and the resources available. Effective supervision narrows the margin between what exists and what potentially can be achieved on the basis of the needs of the individual facilities and service providers. Supervision will be conducted by the Zonal Officers, in collaboration with the Reproductive Health Coordinator in each district, who in turn are in direct communication with the Reproductive Health Unit in the Ministry of Health .

The purpose of evaluation is to assess progress towards the programme objectives at any given point in time. It assembles information from surveillance, monitoring and supervision to determine whether planned outcomes are being achieved.

The evaluation process will include epidemiological surveillance (trends, prevalence and incidence) in order to estimate the degree of achievement of the Sexual and Reproductive Health Programme.

DAILY TALLY OF EPISODES OF ILLNESSES SEEN

DATE TALLY SHEET COLLECTED:

NAME OF HEALTH CENTRE: _____
 PERIOD COVERED (DATES): FROM _____ TO _____

DOCTORS NAME: _____ DOCTORS SIGNATURE: _____

ILLNESSES SEEN	NUMBER OF CASES BY SEX AND AGE GROUP										TOTAL	
	MALES					FEMALES						
	AGE GROUP:		AGE GROUP:		AGE GROUP:		AGE GROUP:		AGE GROUP:			
	0 - 4	5 - 14	15 - 19	20 - 29	30 - 39	40 +	0 - 4	5 - 14	15 - 19	20 - 29	30 - 39	40 +
Urethral discharge	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
Genital ulcers including genital herpes	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
Vaginal discharge	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
Pelvic inflammatory disease	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
Ophthalmia neonatorum	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
Genital warts	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
Other STD	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
All other illnesses	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
TOTAL												

NOTE: EACH TIME YOU SEE A PATIENT DRAW A LINE THROUGH ONE OF THE ZEROS ("0") IN THE CORRECT COLUMN AND ROW INDICATING WHAT THE PATIENT WAS SEEN FOR

Report only new episodes of illness, i.e.:
 If a patient has been treated for an illness and is now attending for follow up do NOT report this patient as he/she was already recorded when he/she first came to the health centre.
 If, however, he/she returns with another (new) episode of an illness report him/her as a new case by marking off another zero.

15. Human resources

Provision of STI services: according to the Sexual and Reproductive Health delivery guidelines the following cadres can provide STI services, once they have completed SMA training:

- Doctors
- Clinical Officers
- Registered nurses/midwives
- Nurse Midwife Technicians
- Enrolled Nurse/Midwives
- Medical Assistants

Community Based Distributors can provide STI counselling services only.

Training in SMA is a requirement for all STI service providers who did not receive training in SMA during their pre-service training. Training may be conducted by both the Ministry of Health and NGOs, but MUST be in accordance to the MoH developed manuals of SM Approach.

State Registered Nurses and Clinical Officers who are SMA trained and who have received recommendations from their SMA trainer are eligible to become trainers of service providers after successfully completing a TOT course in STIs.

Supervisors are Master trainers, SRH coordinators at District Level, the STI management officer from the RHU and the HIV/AIDS/STI officer from the HIV/AIDS unit in the Ministry of Health .

PART 2: SEXUALLY TRANSMITTED INFECTIONS

1. Common STIs not included in the flowcharts

1.1. Genital infection with Human Papilloma Virus (HPV)

More than 30 types of human papilloma virus (HPV) can infect the genital area. The majority of HPV infections are asymptomatic, unrecognized, or sub-clinical. Genital HPV infection is common and usually self-limited. However HPV is the aetiologic agent of genital and cutaneous warts and is associated with the aetiology of cancer of the cervix. HPV is a sexually transmissible virus.

Genital HPV infection can cause genital warts, usually associated with HPV types 6 or 11. Other HPV types that infect the anogenital region, such as the high-risk HPV types 16, 18, 31, 33, and 35 are strongly associated with cervical neoplasia. Persistent infection with high-risk types of HPV is the most important risk factor for cervical neoplasia.

A definitive diagnosis of HPV infection is based on detection of viral nucleic acid, DNA or RNA, or capsid protein in cervical cells.

Women determined to have HPV infection should be counselled that HPV infection is common, infection is frequently transmitted between partners, and that infection usually goes away on its own. If any Pap test or biopsy abnormalities have been observed, further evaluation is recommended.

In the absence of genital warts or cervical squamous intraepithelial lesions (SIL), treatment is not recommended for subclinical genital HPV infection, whether it is diagnosed by colposcopy, biopsy, acetic acid application, or through the detection of HPV by laboratory tests. Genital HPV infection frequently goes away on its own, and no therapy has been identified that can eradicate infection. In the presence of coexistent SIL, management should be based on histopathologic findings.

1.2 Genital Warts

The diagnosis of genital warts is made on finding flat, papular or pedunculated growths on the genital mucosa. The use of HPV testing for genital wart diagnosis is not recommended.

The diagnosis is made by visual inspection and may be confirmed by biopsy. Biopsy is only needed if the diagnosis is uncertain, the lesions do not respond to standard therapy, the disease worsens during therapy, the patient is immunocompromised, or if warts are pigmented, indurated, fixed, bleeding, or ulcerated.

Treatment of genital warts

The primary goal of treating visible genital warts is the removal of the warts. Treatment of genital warts does not eliminate HPV infection. Conventional treatments for genital warts such as podophyllin, should not be used during pregnancy. However, because genital warts can enlarge and become friable during pregnancy, it may be necessary to refer such clients for specialist opinion and management. However small warts are likely to resolve spontaneously after delivery.

It should be noted that HPV types 6 and 11 can cause respiratory papillomatosis in infants and children born to women with HPV infection. Pregnant women with genital warts should be counselled concerning the low risk for warts on the larynx (recurrent respiratory papillomatosis) in their infants or children.

There are several methods of treating genital warts as outlined below. (see also Malawi standard treatment Guidelines.)

a) **Chemical treatment**

- i. Compound podophyllin is applied to warts each week for 4 to 6 weeks. Apply carefully and sparingly to lesions, avoiding normal tissue and ask the client to wash off the podophyllin after 1 – 4 hours. Use podophyllin only on warts that are found on keratinised skin. All clients with warts on mucosal surfaces of the labia, vulva, vagina, cervix and urethral meatus should be referred for assessment and management. If there is no improvement after 4–6 weeks, refer client for specialist management which may include cryotherapy.

Podophyllin paint is toxic and should not be used in large amounts. Large areas should be treated sequentially. Podophyllin paint is contra-indicated during pregnancy and lactation.

- ii. Silver nitrate stick applied daily. This can be used during pregnancy and lactation as an alternative to Podophyllin paint.

b) **Physical removal**

- i. Liquid nitrogen
- ii. Electro-cautery
- iii. Surgical removal



Cutting away the warts (with scissors or razors) in the out-patient setting is contra-indicated since it results in excessive bleeding.

1.3 Cancer of the Cervix

HPV infection may cause few or no symptoms and therefore people will not know they are infected with the virus. It is estimated that 10% of women infected with HPV will develop precancerous changes in the cervical tissue (dysplasia); of which some will be limited to the outer layers of the cervical cells (carcinoma *in situ* CIS) and a smaller group will develop invasive cancer of the cervix, unless CIS is detected early and treated.

Risk factors for Cervical cancer include sexual activity initiated before age of 18; multiple sexual partners; exposure to other STIs, a mother or sister with cervical cancer and immunosuppression due to HIV/AIDS. HIV infection is an important risk factor because it makes the cells lining the lower genital tract (vulva, vagina and cervix) more easily infected by the cancer-inducing HPV.

Prevention:

Primary prevention includes risk reduction counselling to minimise risk to STI exposure.

Secondary prevention targets those women who (unknown to themselves) are already infected with HPV.

- Identify those with early, easily treatable precancerous lesions
- Treat with cost-effective treatment before lesions progress to cancer

Diagnosis can be made by examining a Pap-smear (which needs to be sent to Central Hospitals to be read by a histopathologist) or by *Visual Inspection* using a dilute solution of *Acetic Acid* (VIA).

VIA is recommended in Malawi for the following reasons:

- It is non-invasive, easy to perform and inexpensive
- It can be performed by all levels of health care workers, in almost any setting
- Results are immediately available – potential for immediate link to treatment
- All supplies are locally available (light source, speculum, examining table, acetic acid (vinegar), vaginal swabs, gloves)

VIA is currently available in selected sites throughout the country.

Early treatment of cervical cancer consists of cryotherapy. This is the use of liquid nitrogen to freeze the lesions or dysplasia. In advanced stages of cervical cancer, radical surgery (removing parts of the cervix, or the entire uterus) is the only therapy.

Please refer to the National Service Delivery Guidelines for Cervical Cancer Prevention (MoH 2005) for further details and information.

1.4. Secondary syphilis

Syphilis infections which are not immediately treated stage according to duration of infection. Different stages of disease require different treatment regimes.

Secondary syphilis occurs during the early stage of syphilis, usually within 4 to 6 months after initial infection. Clients with secondary syphilis present with a generalised non-itchy rash generalised painless lymph node enlargement, papules on the mucosal surfaces of the mouth and genital mucosa, *condylomata lata* and patchy alopecia. During this stage of syphilis, infection is generalised and rarely clients may develop features of meningitis, hepatitis and pneumonitis.

Clinically diagnosed secondary syphilis is treated with a single intramuscular dose of Benzathine penicillin 2.4 MU or if the client is allergic to penicillin, Doxycycline 100 mg every 12 hours for 15 days is given. If the client is also pregnant, erythromycin 500 mg orally every 6 hours for 15 days.

1.5 Latent Syphilis

The latent phase of syphilis is defined by a positive syphilis serology with no clinical manifestations. Such clients will often be referrals from Malawi Blood Transfusion Service and from antenatal clinics.

It is divided into two stages and the treatment depends on the stage of infection:

- a) **Early latent syphilis:** total duration of infection of not more than two years.
Treatment: Single intramuscular dose of Benzathine penicillin 2.4 MU
If the client is allergic to penicillin: Doxycycline 100 mg every 12 hours for 15 days or if the client is also pregnant, erythromycin 500mg orally every 6 hours for 15 days.

- b) **Late latent syphilis:** Latent syphilis of more than two years duration or of indeterminate duration.
Treatment: Benzathine penicillin 2.4 MU IM, once weekly for 3 consecutive weeks.
If the client is allergic to penicillin Doxycycline 100mg every 12 hours for 30 days or if the client is also pregnant, erythromycin 500 mg orally every 6 hours for 30 days.

As Latent Syphilis may not be detected easily in our Malawi context, and therefore the duration of disease is difficult to determine, it is advisable to treat all latent syphilis as Late latent syphilis with Benzathine Penicillin 2.4 MU IM weekly for 3 consecutive weeks.

1.6 Late Syphilis

Late syphilis occurs many years after initial infection in clients who have not received treatment adequately during the early stages. There are three types of late syphilis: gummatous syphilis (also known as benign tertiary syphilis), cardiovascular syphilis and central nervous system syphilis. The diagnosis of late syphilis is made in clients with positive syphilis serology who also have skin bone and visceral lesions, or cardiac abnormalities including aortic aneurysm and in clients with neurologic abnormalities. Such clients need thorough clinical and laboratory evaluation before a diagnosis is made

a) **Gummatous and/or Cardiovascular syphilis:**

Treatment: Benzathine penicillin 2.4 MU given intramuscularly each week for 3 weeks.

If the client is allergic to penicillin: Doxycycline 100 mg every 12 hours for 30 days or if the client is also pregnant, erythromycin 500mg orally every 6 hours for 30 days.

b) **Neurosyphilis**

Treatment: Aqueous crystalline benzyl 4 million units given intravenously every 4 hours for 14 days. This is usually followed by Benzathine penicillin 2.4 MU given intramuscularly each week for 3 weeks.

If the client is allergic to penicillin: Doxycycline 100 mg every 12 hours for 30 days or if the client is also pregnant, erythromycin 500mg orally every 6 hours for 30 days.

1.7 Congenital Syphilis

Congenital syphilis is the result of infection of the transfer of maternal syphilis to the foetus. It may occur if the expectant mother has syphilis, but the risk is minimal if she has been given penicillin during pregnancy. Adverse effects on pregnancy occur in nearly 70% in women with untreated maternal syphilis and complications include abortion, late stillbirth, and low birth weight babies. As in acquired syphilis, congenital syphilis may be early (less than 2 years in duration) or late (more than two years duration). Congenital syphilis may also be latent, in which case the diagnosis is made on the finding of infection in the neonate/infant/child through serologic tests.

a) **Early congenital syphilis**

In the early stages of clinical features include skin and mucous membrane lesions, such as generalised rash, lymph node enlargement, nasal discharge, hoarse voice, condylomata lata, and visceral lesions that include iritis, pneumonia, hepatitis, jaundice, meningitis, periostitis, anaemia and failure to thrive.

b) **Latent congenital syphilis**

As in acquired syphilis, latent congenital syphilis is diagnosed on the finding of positive serological tests for syphilis in children in whom no clinical features of syphilis are found. Latent congenital syphilis may be early (less than two years duration) or late (more than two years in duration).

c) **Late congenital syphilis**

In late congenital syphilis, young children may present with the scars of healed early infection which include collapse of the nasal bridge, perforated palate, sabre tibiae, interstitial keratitis, nerve deafness and abnormalities of the teeth. Children may also present with syphilitic gumma affecting mucous membranes, skin and viscera; or they may present with central nervous system involvement from syphilis. Cardiovascular syphilis rarely occurs as a result of congenital syphilis.

All infants born to mothers who tested positive for syphilis in pregnancy should be examined at birth and at monthly intervals for 3 months until it is confirmed that serological tests for the infant are, and remain, negative. Any antibody carried over passively from mother to baby usually disappears within 3 months of birth. The presence of IgM specific anti-syphilis antibody in the baby's serum may aid diagnosis. Early congenital syphilis generally responds well, both clinically and serologically, to adequate doses of penicillin. Recovery may be slow in seriously ill children with extensive skin, mucous membrane, bone or visceral involvement. Those in poor nutritional condition may succumb to concurrent infections, e.g. pneumonia.

1.7.1. Prevention of Congenital Syphilis through routine ANC syphilis screening

Congenital syphilis is entirely preventable and cases should **never** occur. Prevention can be achieved through diagnosing maternal syphilis during pregnancy and treating the infection adequately once found. Since effective prevention and detection of congenital syphilis depends on the identification of syphilis in pregnant women **all** pregnant women should be screened for syphilis at the first antenatal visit. Routine Antenatal screening is mandatory in Malawi. In communities and populations in which the risk for congenital

syphilis is high, serologic testing should also be performed late in pregnancy and at delivery.

Antenatal screening by rapid test, such as Determine should be carried out on all pregnant women, and infected women should receive treatment immediately.

Any woman who gives a history of a delivery of a stillborn infant after 20 weeks' gestation should be tested for syphilis. No infant should leave the hospital without the maternal serologic status having been determined at least once during pregnancy.

Benzathine Penicillin is effective for preventing maternal to child transmission of syphilis and for treating foetal infection in- utero

1.7.2. Treatment of maternal syphilis

Treatment during pregnancy should be with the penicillin regimen appropriate for the stage of infection. Women found to be positive during pregnancy may be assumed to have late latent infection unless there is clear documentation that the infection is less than 2 years old. Hence, give Benzathine penicillin 2.4 million units IM one dose weekly for 3 weeks. (If there is clear evidence that the infection in the pregnant woman is less than 2 years in duration then one intramuscular dose benzathine penicillin 2.4 million IU will be sufficient.)

If the woman is allergic to penicillin then erythromycin 500mg 4 times a day is given for 30 days (if the infection is less than 2 years in duration then erythromycin may be given for 15 days)

All infants born to sero-positive mothers should be treated with a single intramuscular dose of benzathine benzylpenicillin, 50 000 IU/kg whether or not the mothers were treated during pregnancy (with or without penicillin) unless they have features of congenital syphilis when they should receive the appropriate treatment for congenital syphilis described below.

Treatment of congenital syphilis

All infants born to women who have reactive serologic tests for syphilis should be examined thoroughly for evidence of congenital syphilis. Look specifically for ascites, oedema, jaundice, hepatosplenomegaly, rhinitis, nasal discharge, hoarse cry, skin rash, and/or pseudoparalysis of an extremity.

a) Infants with these symptoms should be treated as early congenital syphilis:

Aqueous crystalline benzylpenicillin 50 000 IU/kg/dose intravenously every 12 hours, during the first 7 days of life and every 8 hours thereafter for a total of 10 days, OR Procaine benzylpenicillin, 50 000 IU/kg by intramuscular injection, as a single daily dose for 10 days.

b) Children with late congenital syphilis (more than 2 years) are treated as follows:

Aqueous benzylpenicillin 50 000 IU/kg/dose IV every 4 to 6 hours 10 to 14 days, OR Procaine benzylpenicillin, 50 000 IU/kg by intramuscular injection, as a single daily dose for 10 days. Alternatively, in penicillin allergic children give Erythromycin syrup 12.5mg/kg orally 6 hourly for 30 days.

SUMMARY AND POINTS OF IMPORTANCE TO NOTE

- Screening for maternal syphilis should be carried out at the first antenatal visit and if possible late in pregnancy and at delivery
- Congenital syphilis may occur if the expectant mother has syphilis, but the risk is minimal if she has been given penicillin during pregnancy
- All infants of seropositive mothers should be examined at birth and at monthly intervals for 3 months 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
- All babies born to mothers who have had a positive test for syphilis during pregnancy should be given Benzathine penicillin 50,000 units/kg IM STAT regardless of mother having received treatment
- All babies with signs of congenital syphilis should be admitted to hospital and be given intravenous crystalline penicillin 50,000 units/kg intravenously every 12 hours for 7 days and then every 8 hours daily for 3 more days
- Early congenital syphilis generally responds well, both clinically and serologically, to adequate doses of penicillin. Recovery may be slow in seriously ill children with extensive skin, mucous membrane, bone or visceral involvement

2. Infertility

Infertility is defined as failure to achieve pregnancy despite regular unprotected intercourse for at least 12 months. The causes of infertility affect both men and women equally.

Infertility is classified in two types:

Primary infertility: A couple has never conceived despite having regular unprotected intercourse for at least 12 months

Secondary infertility: A couple has previously conceived, but is subsequently unable to conceive within 12 months despite having regular unprotected intercourse.

The main causes of infertility include the following:

STIs, most commonly those caused by *N. gonorrhoeae* and *C. trachomatis* resulting in Pelvic Inflammatory Disease in women and epididymo-orchitis in men. Sometimes advanced syphilis or HIV infection may be implicated.

Infertility can often be prevented by adequate and prompt treatment of all STIs

Other causes of infertility are:

- Ovulatory factors in women – eg. Central defects such as ovarian failure or tumors
- Abnormal sperm motility – eg. Antibody formation
- Abnormal spermatogenesis – eg. Chromosomal abnormalities, radiation or chemical exposure, varicocele
- Sexual dysfunction – eg. Retrograde ejaculation, impotence
- Anatomic disorders – eg. Undescended testis

- Metabolic diseases in women – eg. Obesity
- Mumps orchitis in men
- Schistosomiasis
- Tubo –ovarian TB and TB endometritis in women and TB orchitis in men
- Endocrine disorders – eg. Thyroid disorders

2.1. Infertility Management

The following investigations should be conducted:

1. Stool & Urine microscopy and treat accordingly
2. syphilis screening and treatment
3. pelvic / abdominal ultrasound
4. seminal analysis
5. Syndromic management of all STIs
6. treat women and their partner(s) for PID

After these preliminary investigations the client should be referred for further gynaecological investigations.

All individuals or couples should undergo HIV testing & counselling

3. Management of Multiple STI Syndromes

When clients present with more than one STI Syndrome at the same visit, they should always be treated for both syndromes. In some cases, the treatment is the same for both conditions. An example is urethral discharge and scrotal swelling. In this case, one course of antibiotics is sufficient.

When two syndromes may require the same antibiotic for different lengths of time, the antibiotic should be given for the longer duration. An example is enlarged inguinal lymph nodes (without ulcers) combined with either urethral discharge, scrotal swelling, or high risk genitourinary symptoms in women. In this case, the treatment is Gentamicin 240mg IM stat and Doxycycline 100mg orally every 12 hours for 14 days.

When a client presents as an asymptomatic partner for one syndrome and is found to be symptomatic with another syndrome, the client should be treated for both. An example is a man who comes to the clinic because his partner has genital ulcers. On examination, he is found to have urethral discharge but no ulcers. In this case, he should be treated for both genital ulcers and urethral discharge with Gentamicin 240mg IM stat. Benzathine Penicillin 2.4MU IM stat and Erythromycin 500 mg orally every 6 hours for 7 days.

4. Other Sources of Information on STI control

“Sexually Transmitted Diseases” Chapter 9 in the Malawi Prescriber’s

Companion. Pages 87–98. Malawi Essential Drugs Programme, Ministry of Health, 1993.

“Sexually Transmitted Diseases” Chapter 19 in Malawi Standard Treatment Guidelines, 2nd Edition, 1993, Pages 138–145. Malawi Essential Drugs Programme, Ministry of Health.

Part 3:

FLOWCHARTS

1. Genital Ulcer Disease Flowchart (GUD)

A number of sexually transmitted pathogens may cause genital ulceration. In Malawi studies have shown that the commonest causes of genital ulcers are Herpes simplex virus, Chancroid and Syphilis. Herpes simplex virus has been shown to be the cause of genital ulcer disease in over 60% of cases. In addition, there is evidence that *Lymphogranuloma venereum* also occurs but studies are rather limited. In Syndromic management, treatment of a client with genital ulcers should therefore adequately cover the three common causal organisms. Mixed infections occur commonly.

If phimosis is present (the underlying cause is usually genital ulcer disease) penile discharge can originate from under the foreskin and can mimic urethral discharge. However, if urethral discharge is present treat for both genital ulcer disease and urethral discharge.

Traditional healers sometimes treat women for STIs and other conditions by incising the vulvar mucosa. Such lesions must be differentiated from genital ulcer disease by a history and physical examination.

Genital herpes has become the commonest cause of genital ulcer disease. Classical herpes lesions appear as painful clusters of vesicles. The client often gives a history of past episodes of similar lesions.

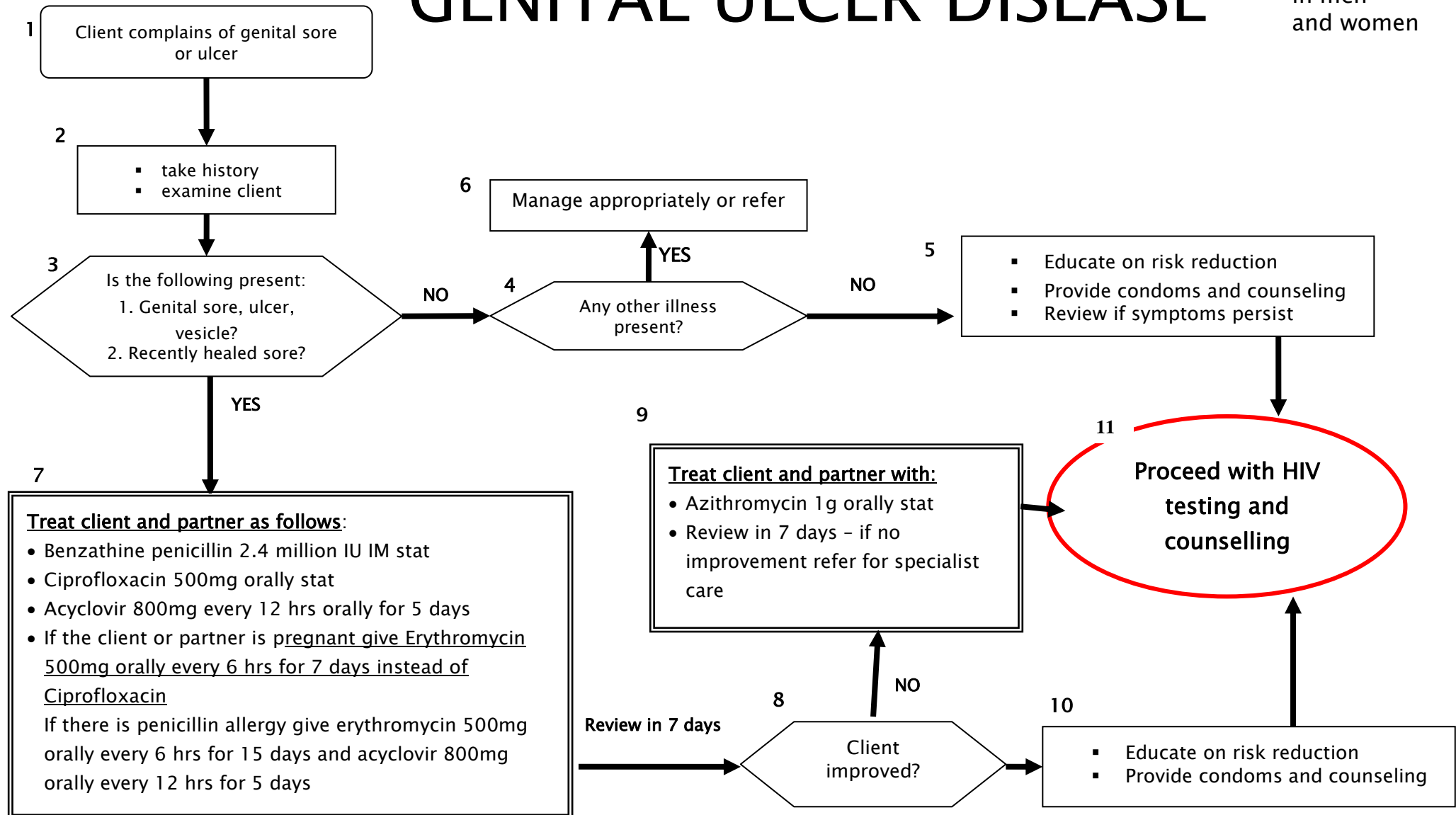
Locally no medications need to be applied and clients with genital ulcers should be advised to wash affected areas frequently and keep lesions clean and dry.

Recommended syndromic treatment for genital ulcer disease (GUD)

- Treat client and partner(s) with Benzathine Penicillin 2.4 MU IM STAT, Ciprofloxacin 500mg in a single oral dose STAT and Acyclovir 800mg orally every 12 hours daily for 5 days
- Fluctuant buboes should be aspirated through adjacent normal (i.e. not inflamed skin). Do not incise because it delays healing.
- Severe ulcerations may require surgical consultation.
- If the client or partner is pregnant do not use ciprofloxacin, give Erythromycin 500mg orally every 6 hours for 7 days together with Benzathine Penicillin 2.4 MU IM STAT and acyclovir 800mg orally twice daily for 5 days
- If the client or partner is allergic to penicillin then give Erythromycin 500mg orally every 6 hours for 15 days together with acyclovir 800mg orally every 12 hours for 5 days
- All infants born to mothers who were treated for genital ulcers during pregnancy should be treated with Benzathine Penicillin 50,000 iu/kg IM as a single dose

GENITAL ULCER DISEASE

in men and women



2. Urethral Discharge/dysuria Flowchart (UD)

Urethral discharge occurs in persons who have a urethral inflammation, also known as urethritis. This is a common presenting symptom of STIs in males. Male clients complaining of urethral discharge and /or pain (dysuria) should be examined for evidence of discharge. If no discharge is seen, the urethra should be gently massaged (milked) from the ventral (lower part) of the penis towards the meatus.

The common causes of urethral discharge are *Neisseria gonorrhoeae* and *Chlamydia trachomatis*, and *Trichomonas vaginalis*. In syndromic management, treatment of a client with urethral discharge should therefore adequately cover these organisms. Other causes of urethritis include *Candida albicans* and *Ureaplasma urealyticum*. There are also non-STI causes of urethritis such as urinary tract infections (UTI), prostatitis and schistosomiasis.

Clients with urethritis often present with the symptom of dysuria. Though dysuria occurs in STIs it is also a common presenting symptom of urinary tract infections. It is important to assess all men with dysuria for the likelihood of them having an STI. For this reason men presenting with the symptom of dysuria should have a risk assessment for STIs conducted. It is advised that all men presenting with dysuria are asked if they have had sexual intercourse without a condom in the last two weeks, whether this act be with their regular partner, spouse or any other contact. If they have had sex without a condom in the preceding two weeks then they are considered to have a positive risk assessment for STI and are managed according to the flowchart for urethral discharge/dysuria shown on the next page.

During history taking, ask the client about recent self treatment and how long it has been since his last urination. The discharge may not be visible if he recently urinated or took

ineffective medication that relieved his discharge but did not cure his infection. He should be treated for Urethral Discharge.

Where laboratory diagnosis is necessary and facilities are available, urine microscopy/urethral smear can be performed and a result of more than 5 polymorphonuclear leukocytes (WBC) per power field (x1000) is indicative of urethritis.

**Recommended Syndromic treatment for Urethral Discharge (UD)
and Dysuria with a positive risk assessment**

Treat the client and partner with:

- Gentamicin 240mg IM STAT
- Doxycycline 100mg PO every 12 hours for 7 days
- Metronidazole 2g as a single oral dose STAT

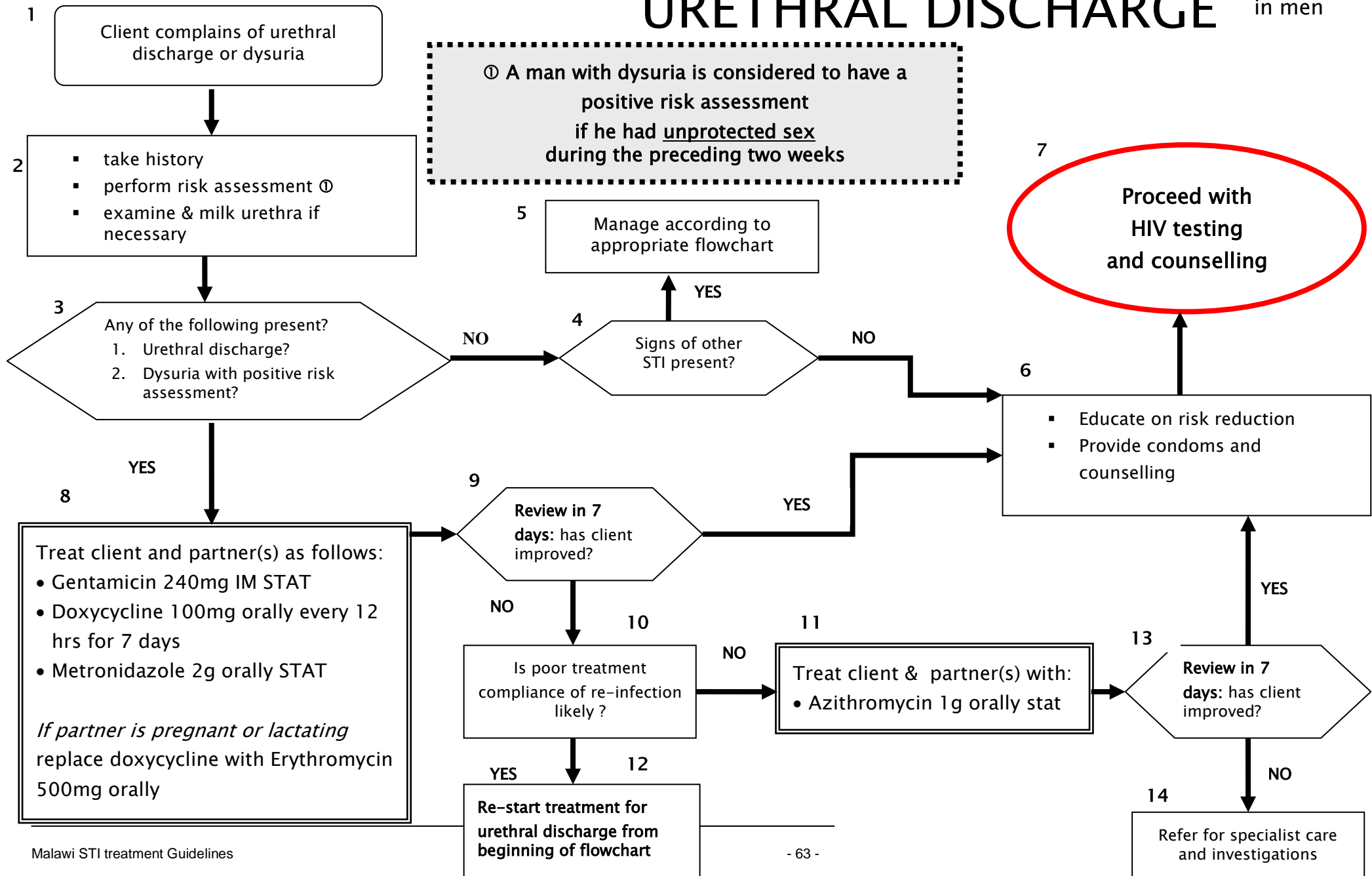
Pregnant and lactating partners should not take Doxycycline but should be given Gentamicin 240mg IM, Erythromycin 500mg orally every 6 hours for 7 days and Metronidazole 2g in a single oral dose STAT.

Clients taking Metronidazole should be advised to avoid taking alcohol during treatment and up to 72 hours after the last dose



Remember that Metronidazole is contraindicated for use during the first trimester of pregnancy

URETHRAL DISCHARGE in men



3. Abnormal Vaginal Discharge Flowchart (AVD)

A complaint of abnormal vaginal discharge, in terms of quantity, colour and odour, is most commonly due to a vaginal infection. However vaginal discharge may also be due to cervical infection.

The commonest causes of vaginal infections are: *Trichomonas vaginalis*, *Candida albicans* and bacterial vaginosis. *Neisseria gonorrhoeae* and *Chlamydia Trachomatis* cause cervical infection.

Women may also present with vaginal discharge if they have endometrial infection or pelvic inflammatory disease (PID). But remember also that vaginal discharge is considered normal during and after sexual activity; at various points through-out the menstrual period; and during pregnancy and lactation.

To identify women at risk of cervical infection there is need to do a risk assessment. Women that have a negative risk assessment should be treated for vaginitis and those that have a positive risk assessment should be treated for cervicitis as well as vaginal infection. The nature of the discharge may suggest the presence or absence of vaginal candidiasis.

All women with vaginal discharge and a positive risk assessment should be treated for gonococcal and chlamydial infection, plus trichomoniasis and bacterial vaginosis. In addition, if the discharge is white and curd-like they should also receive treatment for candidiasis.

All women with vaginal discharge in whom a risk assessment is negative should be treated for trichomoniasis and bacterial vaginosis and in addition, if the discharge is white and curd-like, they should receive treatment for candidiasis.

Recommended Syndromic treatment for Abnormal Vaginal Discharge Syndrome:

1. If vaginal discharge is present and the risk assessment is positive treat with:

- Gentamicin 240mg IM STAT *PLUS*
- Doxycycline 100mg orally every 12 hours for 7 days, *PLUS*
- Metronidazole 2g orally as a single dose
- If the discharge is white or curd-like also give one Clotrimazole Pessary 500mg inserted intra-vaginally STAT

2. If vaginal discharge is present and risk assessment is negative treat with:

- Metronidazole 2g orally as a single dose STAT
- If the discharge is white or curd-like also give one Clotrimazole pessary 500mg inserted intra-vaginally STAT

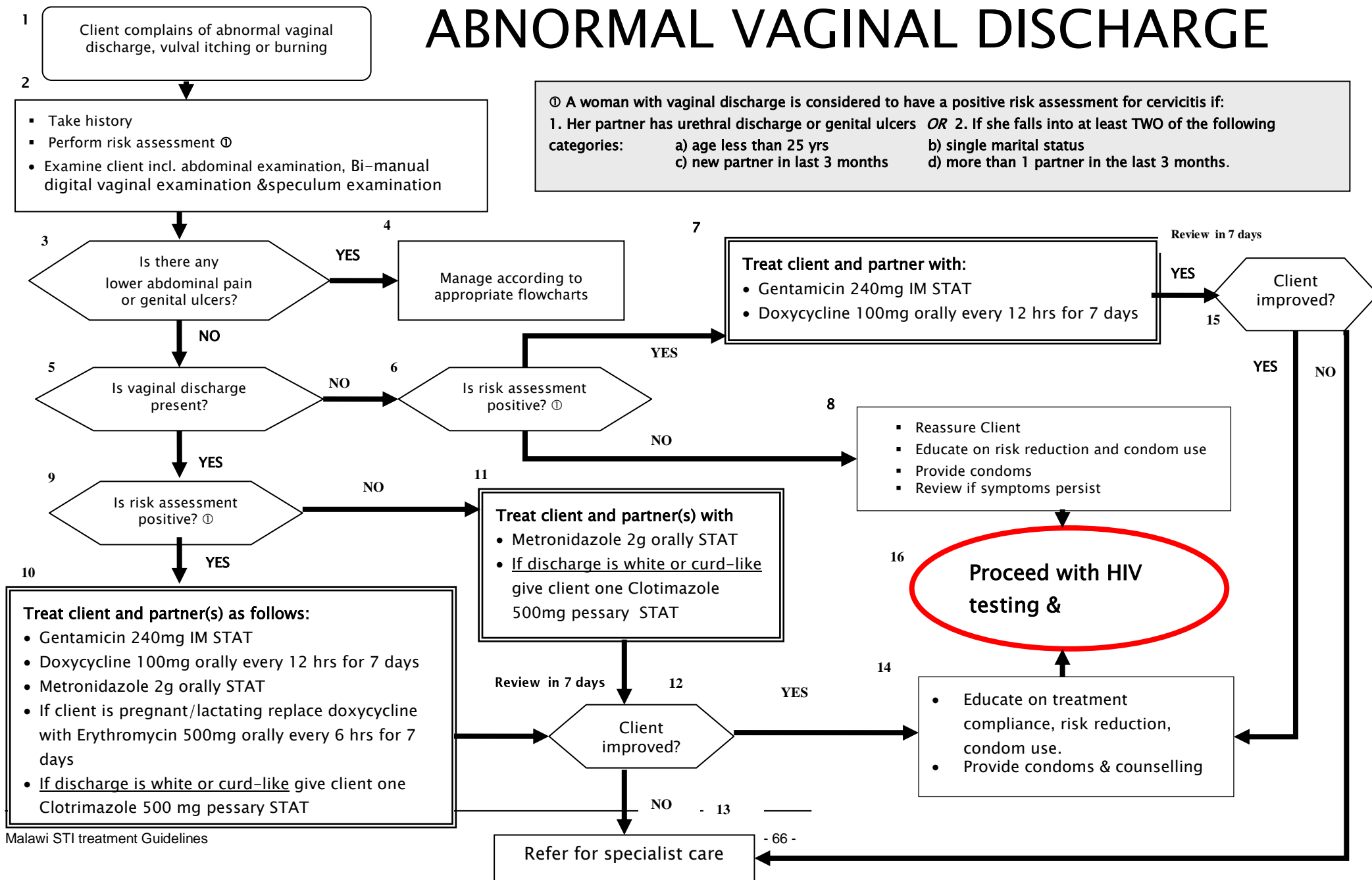
3. If no discharge is found and risk assessment for is positive treat with:

- Gentamicin 240mg IM STAT, PLUS
- Doxycycline 100mg orally every 12 hours for 7 days

4. If no discharge is found and risk assessment is negative manage as follows:

- Reassure client, counsel, educate and provide condoms.
- Advise client to come back if symptoms persist.
- Offer HIV testing after providing information and counselling

ABNORMAL VAGINAL DISCHARGE



4. Lower Abdominal Pain In Women Flowchart (LAP)

All sexually active women presenting with lower abdominal pain should be carefully evaluated for the presence of Pelvic Inflammatory disease (PID). Pelvic inflammatory disease is defined as infection of the female genital tract above the internal os of the cervix. PID occurs as a result of infection ascending from the cervix and can be caused by *Neisseria gonorrhoeae*, *Chlamydia trachomatis* and anaerobic bacteria, usually of the bacterioides species. Occasionally, PID may be caused by *Mycoplasma hominis*. The seriousness of PID lies in the fact that the condition can lead to pelvic peritonitis, tubo-ovarian abscess and generalized peritonitis, which can be fatal.

PID is difficult to diagnose because clinical manifestations are varied. PID becomes highly probable when a woman complains of the following symptoms: Lower abdominal pain, pain with sexual intercourse (Dyspareunia), Vaginal discharge and fever. On bimanual examination there is cervical excitation tenderness and often adnexal tenderness and possibly masses. The client's temperature may be elevated but is normal in many cases. In general it is safer for clinicians to over diagnose and over treat than otherwise.

Not every woman with lower abdominal pain has PID, there are several serious conditions which may present with the symptoms of lower abdominal pain such as ectopic pregnancy, appendicitis and pelvic abscesses. It is therefore important to take a proper history in order to exclude such surgical emergencies.

Recommended syndromic treatment for lower abdominal pain:–

• **Treat client with:**

- Gentamicin 240mgs IM STAT PLUS
- Doxycycline 100mg PO every 12 hours for 10 days, PLUS
- Metronidazole 400mg PO every 8 hours for 10 days

• **Pregnant and lactating women should be treated with**

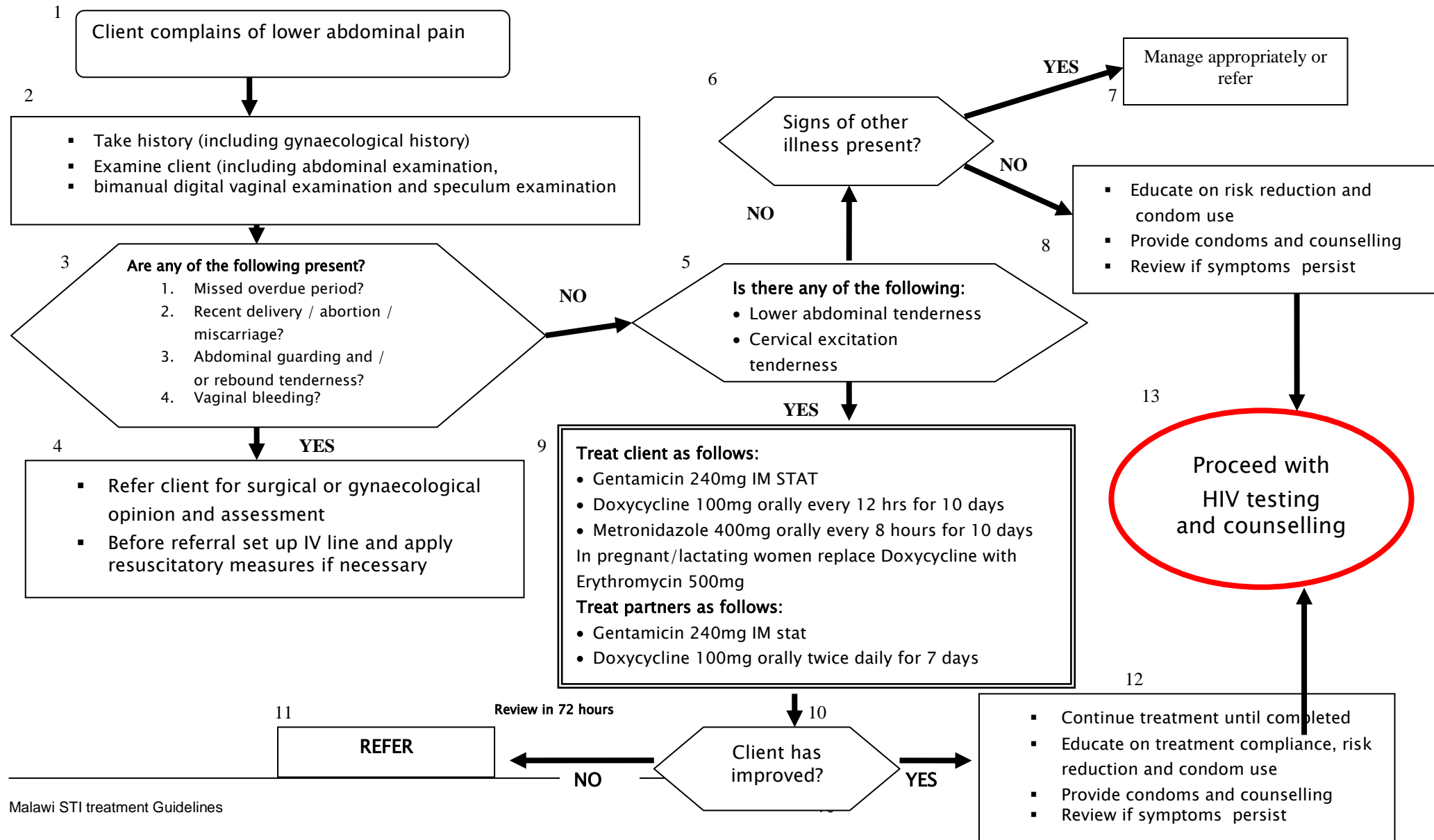
- Gentamicin 240mg IM STAT, PLUS
- Erythromycin 500mg PO every 6 hours for 10 days, PLUS
- Metronidazole 400mg PO every 8 hours for 10 days

• **Partners should be treated with:**

- Gentamicin 240 mg IM STAT, PLUS
- Doxycycline 100 mg every 12 hours for 10 days

If the diagnosis is in doubt or the client is very ill and if a surgical emergency is suspected refer the client for specialist assessment immediately. Before referral ensure that resuscitatory measures have been applied and an IV infusion has been set up

LOWER ABDOMINAL PAIN IN WOMEN



5. Acute Scrotal Swelling Flowchart (SS)

Scrotal swelling is a serious complication of gonococcal or chlamydial urethritis and occurs as a result of infection of the testis. When infected, the testis becomes swollen, hot and excruciatingly painful. When there is inflammation of the epididymis (epididymitis) and the adjacent testis is inflamed (orchitis), this gives rise to epididymo-orchitis. Other causes of epididymo-orchitis include the mumps virus and infection with *E. coli*.

If not effectively treated, STI-related epididymo-orchitis may lead to infertility. It is important to consider other non-infectious causes of scrotal swelling. Trauma and torsion of the testis should be suspected when onset of scrotal pain is sudden. These are surgical emergencies and clients should be referred for specialist opinion and investigations. Other surgical causes include irreducible and strangulated inguinal herniae.

Recommended syndromic treatment for acute scrotal swelling:

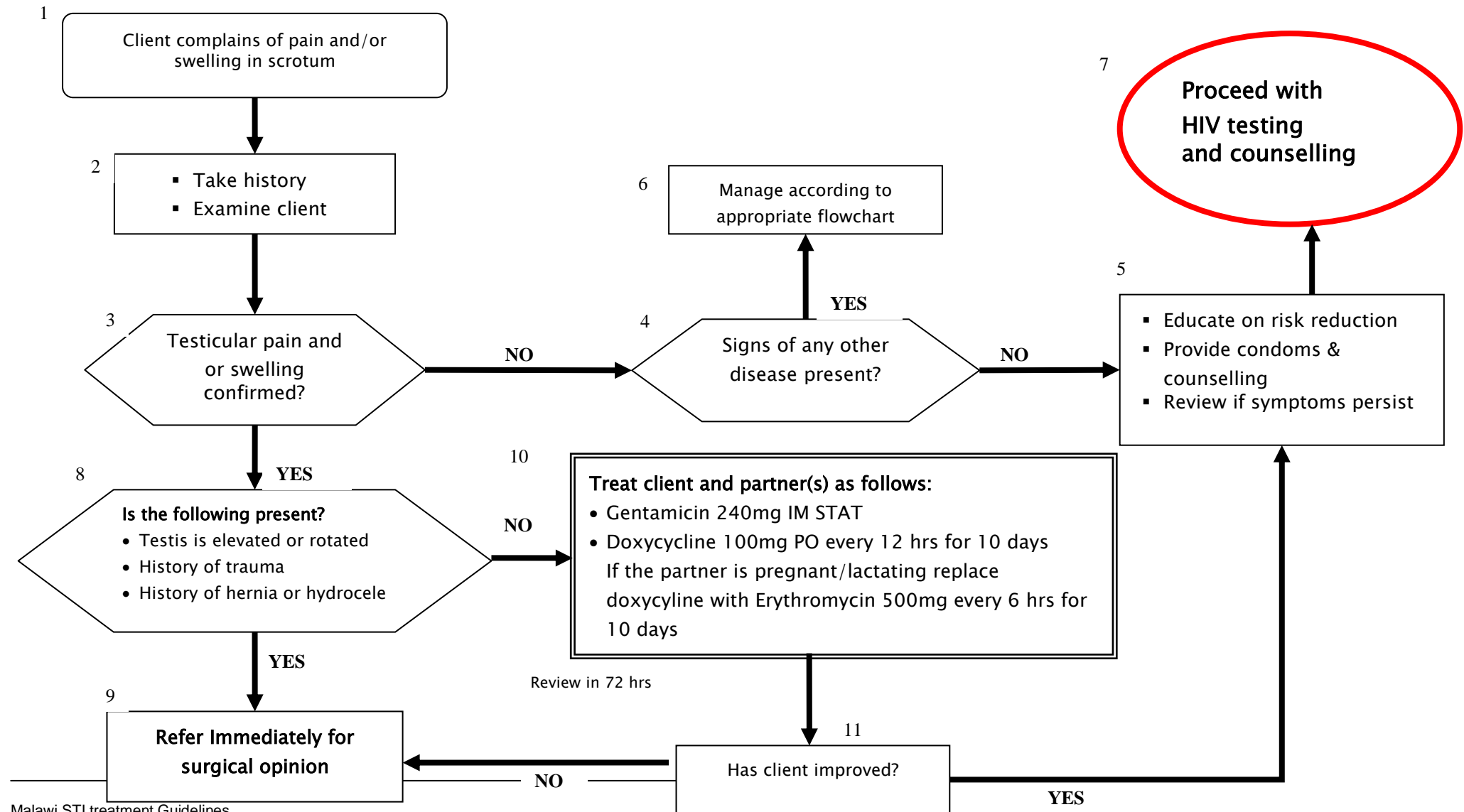
A history should be taken and a careful examination carried out. If there is a suspicion of a surgical cause for the acute swelling, clients should be referred for specialist opinion and investigations and management. If an acute surgical cause can be excluded then clients and partners should be treated for gonococcal and chlamydial infection as follows:

- Gentamicin 240mgs IM STAT
- Doxycycline 100mgs PO every 12 hours for 7 days



For pregnant and lactating partners Doxycycline is contraindicated and should be replaced with Erythromycin 500mgs every 6 hours for 7 days

ACUTE SCROTAL SWELLING



6. Inguinal Bubo Flowchart (BU)

An inguinal bubo is defined as acute inflammation occurring in the lymph nodes in the inguinal region or femoral triangles. Inguinal and femoral triangle buboes are localised enlargements of the lymph nodes in the groin area which are painful and may be fluctuant. They are frequently associated with *Lymphogranuloma venereum* (LGV) and Chancroid. In many cases of Chancroid, an associated genital ulcer is visible, but occasionally may not be. Non-sexually transmitted infections such as, infections in the skin of the buttocks, thighs and lower limbs may result in acute inflammation of the inguinal and femoral triangle lymph nodes. Inguinal and femoral triangle lymph node swellings can occur in a number of other viral and bacterial infections and in lymphoma and Kaposi's sarcoma. Swellings in the inguinal regions may also occur in persons with inguinal hernia and lipoma affecting this region. The acutely inflamed lymph nodes may become abscesses as pus accumulates in them.

Recommended syndromic treatment for inguinal bubo (BU):

Clients complaining of pain and/or swelling in the inguinal region(s) should have a history taken and should be carefully examined. In particular a search should be made for genital ulcers. Clients with bubo are managed as follows:

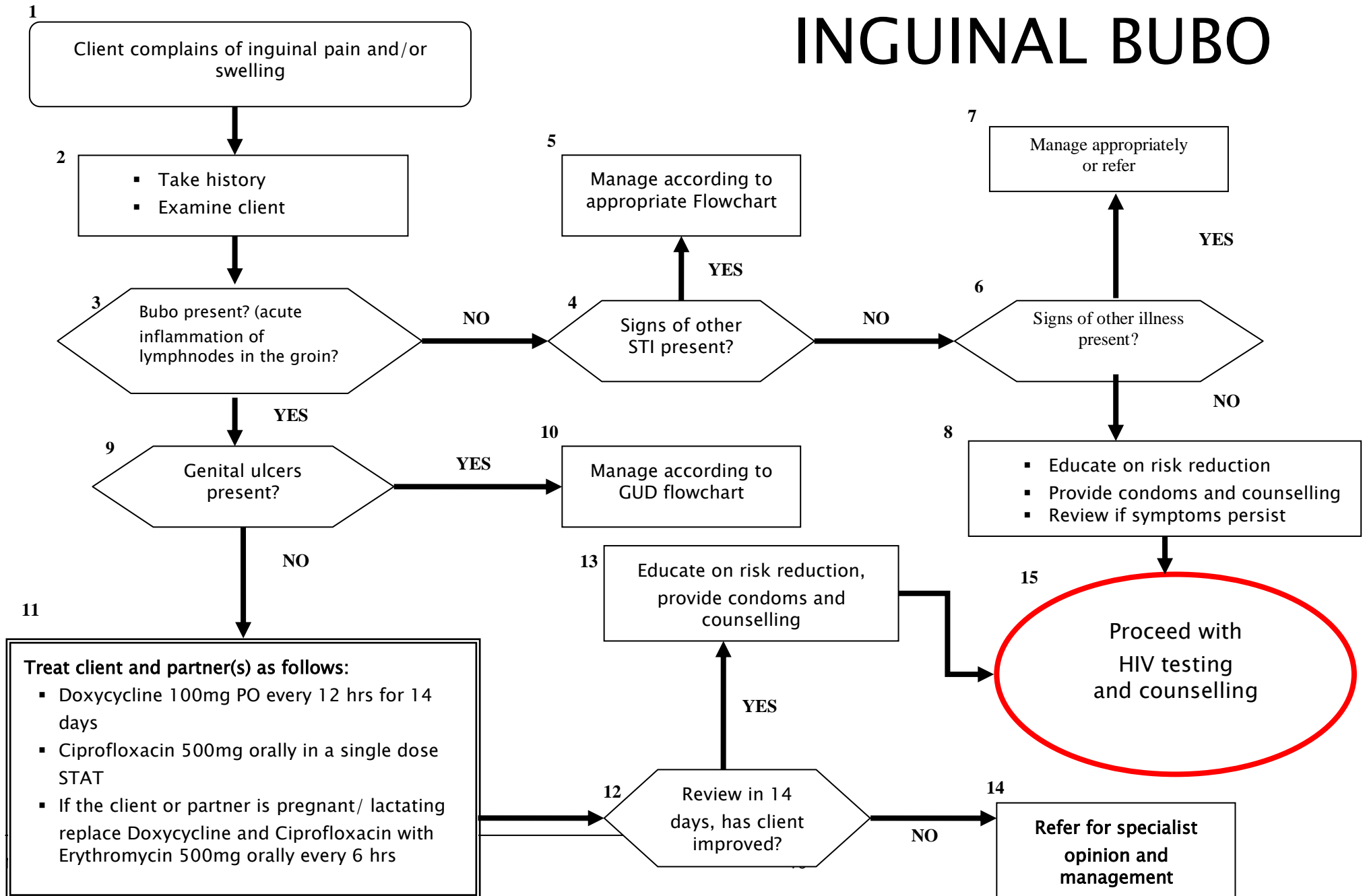
- Clients in whom genital ulcers are found managed according to GUD flowchart
- Clients with bubo in whom genital ulcers are not found should be given –
 - Doxycycline 100mg orally every 12 hours for 14 days, PLUS
 - Ciprofloxacin 500mg orally in a single dose STAT
- Give partners of clients with a bubo the same treatment except if the partner is a pregnant or lactating woman when both doxycycline and ciprofloxacin must be replaced and Erythromycin is given orally in a dose of 500mg 4 times a day for 14 days

Fluctuant buboes should be aspirated through adjacent normal (i.e. not inflamed) skin.
Do not surgically incise and drain fluctuant buboes as this delays healing

If a client presents with a ruptured bubo in the inguinal region and there is no other ulcer in the genital area, then treat for inguinal bubo.

When clients present with a bubo and there is also evidence of a genital ulcer they should be managed for both genital ulcer disease (GUD).

INGUINAL BUBO



7. Balanitis Flowchart (BA)

Balanitis is an inflammation of the glans penis in a circumcised male. In uncircumcised males, both the glans penis and foreskin are affected, and the condition is known as balanoposthitis. The common causes of Balanitis are *Candida albicans* and *Trichomonas vaginalis*. Other causes include allergy and poor personal hygiene..

The commonest presenting symptom is itching which can be quite severe and examination will reveal a follicular rash with some redness of the affected area. At times clients will state that they have urethral discharge not realising that the discharge is coming from the space between the foreskin (prepuce) and the glans penis.

The most important thing to look for during examination is a genital ulcer. If the client's foreskin is so tight that cannot be retracted (phimosis), and the sub-preputial space cannot be visualised treat for genital ulcer disease.

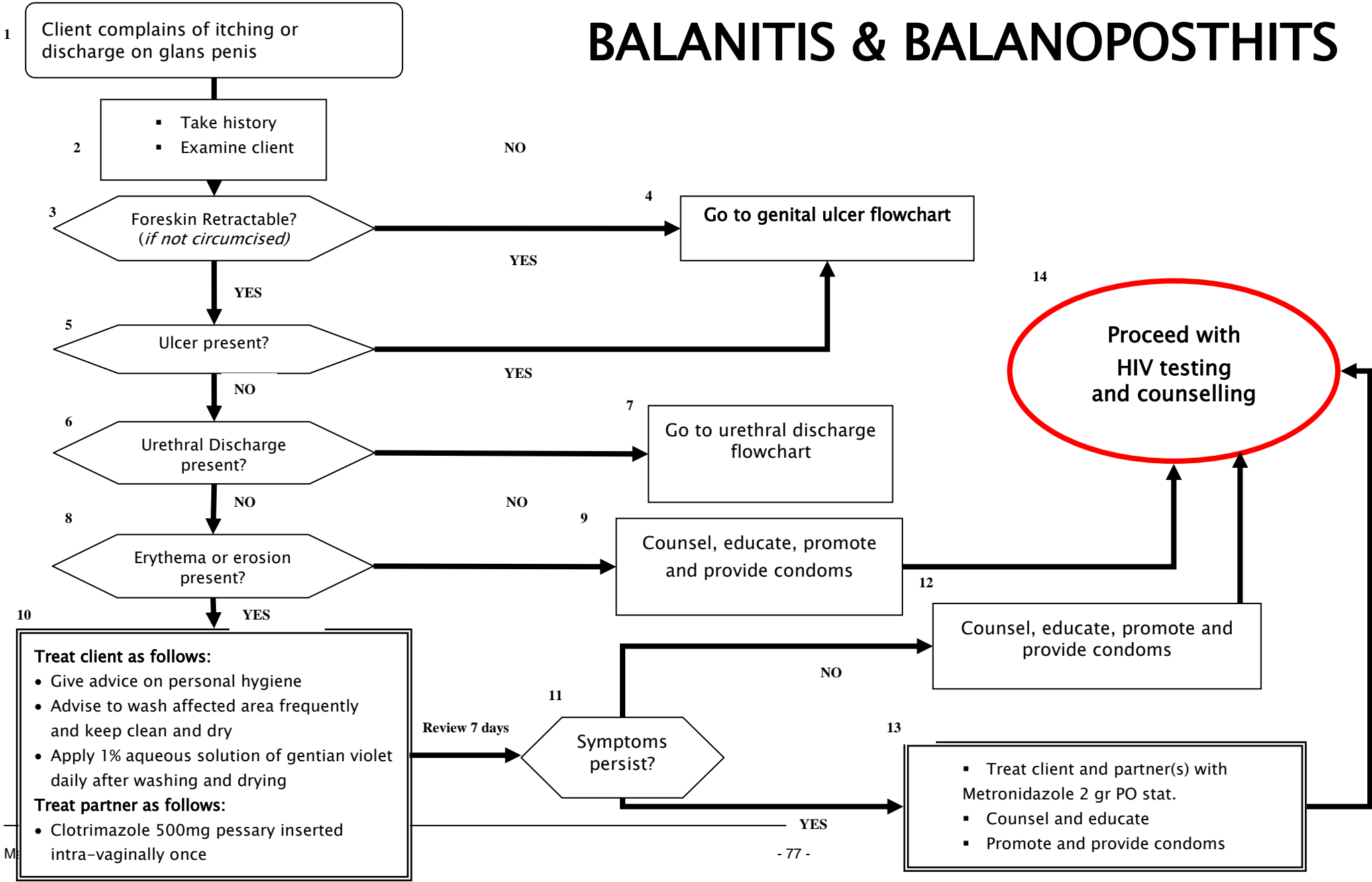
Recommended syndromic treatment for Balanitis:

- Treat client with GV paint topically applied daily for 7 days
- Treat partner(s) for Candida with Clotrimazole 500mg pessary inserted intra-vaginally once

For those clients whose symptoms persist treat both client and partner(s) with

- Metronidazole 2gm PO stat.

BALANITIS & BALANOPOSTHITS



8. Neonatal Conjunctivitis Flowchart (NC)

Neonatal conjunctivitis (*Ophthalmia Neonatorum*) is defined as purulent conjunctivitis occurring in the neonatal period. Numerous infections may cause the condition including *Neisseria gonorrhoeae*, *Chlamydia trachomatis*, *Staphylococcus aureus*, *Streptococcus pneumoniae*, *Haemophilus species* and *Pseudomonas species*. Gonococcal ophthalmia neonatorum can lead to blindness when caused by *Neisseria gonorrhoeae*. Ophthalmia neonatorum is preventable and all attempts should be made to diagnose and treat maternal gonococcal and chlamydial infection and by following a programme of ophthalmia prophylaxis regularly.

Newborn babies with ophthalmia neonatorum generally present with redness and swelling of eyelids or 'sticky eyes', or because of discharge from the eye(s).

Prevention of Ophthalmia Neonatorum

Using timely eye prophylaxis should prevent gonococcal ophthalmia neonatorum. The infant's eyes should be carefully cleaned immediately after birth and 1% tetracycline ointment should be applied to the lower conjunctival sacs of both eyes of all infants at the time of delivery. Ocular prophylaxis provides poor protection against chlamydial conjunctivitis.

Infants born to mothers with gonococcal infection should receive additional treatment as follows:

- Gentamicin 5 mg/kg IM as a single dose, to a maximum of 125mg.
- Alternatively, ceftriaxone 50mg/kg IM as a single dose (maximum 125mg)

Recommended syndromic treatment for neonatal conjunctivitis is as follows:

- Wash eyes with clean water/saline ideally every 2 hours until the purulent discharge is cleared
- Treat with Gentamicin 5 mg/kg IM once (7.5 mg/kg if the infant is older than 7 days) , PLUS
- Treat with Erythromycin 12.5mg/kg orally every 6 hrs for 14 days

Treat Father with:

- Gentamicin 240mg IM stat, PLUS
- Doxycycline 100mg PO every 12 hours for 7 days

Treat Mother with:

- Gentamicin 240mg IM stat, PLUS
- Erythromycin 500 mg PO every 6 hours for 7 days

NOTE:

The Integrated Management of Childhood Infections (IMCI) programme recommends that all neonates with ophthalmia neonatorum are treated as neonatal sepsis and have developed guidelines for this. It is important to treat the neonate with ophthalmia neonatorum for both gonococcal and chlamydial infection systemically and that no topical treatment is necessary. Most neonates with ophthalmia will have been looked after by the child and maternal health programme. Please refer to the IMCI guidelines for current advice.



IMCI recommends that any patient with eye discharge and redness of the conjunctiva should be referred from Health Centre to the next referral level.

NEONATAL CONJUNCTIVITIS

IMCI recommends that any patient with eye discharge and redness of the conjunctiva should be referred from Health Centre to the next referral level.

