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Framework for the Prevention and Control of Sexually Transmitted Infections in the SADC Region

ORIGINAL IN
ENGLISH

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Table of Contents


ACRONYMS AND FLOW-CHARTS

LIST OF FIGURES

LIST OF TABLES


ABBREVIATIONS

AIDS	Acquired immune deficiency syndrome
ANC	Antenatal Care
ART	Antiretroviral therapy
ARV	Antiretroviral
BID	Twice a day
CBOs	Community-based organisations
CDC	United States Centres for Disease Control and Prevention
CSWs	Commercial Sex workers
DFID	Department for International Development (UK)
DNA	Deoxy-ribonucleic Acid
ELISA	Enzyme-linked immuno-sorbent assay
FTA	Fluorescent treponemal antibody test
GBH	Gama benzene hexachloride
GUS	Genital ulcer syndrome
GW	Genital warts
HBsAg	Hepatitis B surface antigen
HBV	Hepatitis B virus
HCG	Human Chorionic Gonadotrophin
HIV	Human immuno-deficiency virus
HPV	Human papilloma virus
HSV	Herpes simplex virus
HTC	HIV testing and counselling
IDS	Integrated disease surveillance
IV	Intravenous
LAP	Lower abdominal pain
LGV	Lymphogranuloma venereum
MDG	Millennium Development Goal
MSM	Men who have sex with men
NGO	Nongovernmental organisation
NICD	National Institute for Communicable Diseases
PEP	Post-exposure prophylaxis
PHC	Primary Health Care

PID	Pelvic inflammatory disease
PLHWHA	People living with HIV and AIDS
QID	Four times a day
SADC	Southern African Development Community
SAPES	Southern Africa Political and Economic Series
SSS	Scrotal Swelling Syndrome
STI	Sexually transmitted infection
Tp	Treponemal
TB	Tuberculosis
TCA	Trichloro-acetic acid
TDS	Thrice in a day
TPHA	Treponema pallidum haem-agglutination assay
UDS	Urethral Discharge Syndrome
UN	United Nations
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
VCT	Voluntary counselling and testing
VDS	Vaginal discharge syndrome
WHO	World Health Organization


GLOSSARY

Acute: Of abrupt onset, in reference to a disease. Acute often also connotes an illness that is of short duration, rapidly progressive, and in need of urgent care.

AIDS: Acquired immune deficiency syndrome. The most severe manifestation of infection in persons with the human immunodeficiency virus (HIV)

Algorithm: A decision and action tree. Also termed a "flow chart". Like a map that guides health workers through a series of decisions and actions.

Asymptomatic: Without symptoms. Usually describes a person who tests positive for an infection, but who shows no clinical symptoms of the disease.

Bacterial vaginosis: Overgrowth of bacteria species which normally are present in low levels in the vagina. Bacteria include Gardnerella, Bacteroides, Mycoplasma hominis, Mobiluncus, Peptostreptococcus.

Chancroid: An infectious venereal ulcer caused by Haemophilus ducreyi. Common in tropical countries.

Chlamydial infection: A highly infectious disease caused by Chlamydia trachomatis. It is passed on during sexual contact. In women, it most commonly infects the cervix, vagina, urethra, and rectum. In men, it most commonly infects the urethra and rectum.

Compliance: The extent to which a patient takes his or her medication according to the prescribed schedule. Also termed "adherence".

Condylomata lata: Lesions associated with syphilis in the secondary stage. They are typically large, raised, grey to white lesions found in warm, moist areas such as the mouth or perineum.

Confidentiality: When data or information is not made available or disclosed to unauthorised persons or processes.

Counselling: A dialogue between a client and a service provider that is aimed at enabling the client to cope with stress and take personal informed decisions regarding his/her health condition.

Donovanosis (Granuloma inguinale): A genital ulcer disease caused by Calymmatobacterium granulomatis. It is common to some (sub)tropical areas, including southern Africa. Symptoms include painless, progressive ulcerative and highly vascular lesions, which bleed easily on contact.

ELISA Test: Enzyme-linked immunosorbent assay. A type of enzyme immunoassay (EIA) for determining the presence of antibodies to HIV in the blood or oral fluids.

Epidemiology: The branch of medical science that deals with the study of incidence, distribution, and control of a disease in a population.

Gonorrhoea: A common infectious disease caused by the bacterium Neisseria gonorrhoea. It can infect mucosal surfaces, including genitals, eyes and rectum. Most infected men develop and seek treatment for urethritis. Most infected women are asymptomatic or have mild and nonspecific symptoms, and thus remain untreated for longer.

Herpes simplex virus (HSV): A virus that can cause several types of viral infections. There are two types: HSV-1 and HSV-2. HSV-1 typically causes vesicles found around the mouth and lips (oral herpes or cold sores). HSV-2 usually infects the genitals, resulting in lesions on or near the genitals.

HIV: Human immunodeficiency virus. A virus that destroys the immune system, ultimately leading to AIDS.

Index case: The patient who presents to the health facility with an STI.

Multiple concurrent partnerships: The practice of people having more than one sexual partner within the same time period.

Pap smear: A screening test for cervical cancer based on the examination under the microscope of cells collected from the cervix, smeared on a slide and specially stained to reveal premalignant (before cancer) and malignant (cancer) changes, as well as changes due to noncancerous conditions such as inflammation from infections.

Pelvic inflammatory disease (PID): Includes a range of upper-genital-tract inflammation, including any combination of endometritis, salpingitis, tubo-ovarian abscess, and pelvic peritonitis. It is generally caused by a contiguous spread of organisms ascending from the cervix via the endometrial cavity to the fallopian tubes and beyond. This seems to be the most common mechanism for the development of PID.

Prevalence: The number of cases at any time during the study period, divided by the population at risk.

Private sector: Private sector refers to involvement by businesses, charitable organisations or individuals.

Public sector: Public sector refers to involvement by government, whether national or local/municipal.

Rapid plasma Reagin test: A blood test for syphilis. It is fast, easy, inexpensive, and is often used for syphilis screening. It can be quantified by its titre. By itself, it does not confirm the presence of Treponema pallidum, the causative agent.

Rapid test: Test for HIV or syphilis that yields same-day results.

Sensitivity: The performance of a test (or other diagnostic criteria) among persons with disease. The probability of a positive test among persons with disease.

Specificity: The performance of a test (or other diagnostic criteria) among persons without disease. The probability of a negative test among persons without disease.

STI: Sexually transmitted infections. These are spread by the transfer of organisms from person to person during sexual contact. Also sexually transmitted disease (STD).

Symptomatic: Having obvious signs of disease such as ulcer, discharge, swelling, fever, diarrhoea, enlarged glands, oral candida, herpes, or skin problems.

Syndrome: A set of signs and symptoms that tend to occur together and which reflect the presence of a particular disease or an increased chance of developing a particular disease.

Syphilis: A chronic infectious disease caused by a spirochaete (Treponema pallidum). It is transmitted either by sexual contact or passed from mother to child in utero. It progresses through three stages, which are characterised respectively by local formation of chancres, ulcerous skin eruptions, and systemic infection leading to general paresis.

Trichomoniasis: A vaginal infection caused by Trichomonas vaginalis. Almost always sexually transmitted. When present, signs and symptoms consist of frothy grey or yellow-green vaginal discharge or pruritus (severe itching).

PREFACE

SADC Member States have adopted the World Health Organization-recommended syndromic approach for managing Sexually Transmitted Infections (STIs) in resource poor settings. This is a comprehensive approach that combines clinical care with interventions to prevent re-infection namely, providing the patient with information, education and risk reduction counselling. However, the risk of re-infection is strongly linked to economic, cultural and other social factors; hence the importance of a broader holistic approach to the management of STIs is essential.

Behaviour modification has been linked to reductions in HIV infection, as observed in countries such as Uganda and Zimbabwe. Likewise, the introduction of syndromic management of STIs has also been linked to improved STI control. However, strong and reliable systems are needed to support quality clinical services. This approach is the central focus of the current SADC Framework for prevention and control of STIs.

The SADC region is currently burdened by two, interlinked development challenges: poverty and health (due largely to HIV AND AIDS and STIs). Poverty leads to movements of people across borders in search of economic opportunities. Migrants may enter into multiple sexual partnerships away from home. While the relationships entered into are often transient, they tend to last long enough for couples to relax consistent safe sex practices.

Often, migrants face poor accessibility to healthcare services in the new environment, which can lead to the development of serious complications and continued disease transmission. Similarly, economically dependent and socially marginalised sub-segments of the population, such as women and young people, are also vulnerable, since their abilities to negotiate safe sex practices or access services become compromised by dependency and inequality. Therefore, the Framework seeks regional cooperation and integration to:

- Synchronise STI policies on clinical practices across the Member States;
- Strengthen systems that support application of knowledge in clinical settings; and
- Intensify behaviour change communication to prevent and mitigate the impact of STIs.

The SADC Framework for the prevention and control of STIs expands on existing international guidelines, tailoring them to fit better in the local contexts. The aim is to provide a foundation for harmonising STI management strategies and practices in the region. The Framework should be seen as a living document that can be reviewed and improved over time.

1. Introduction

1.1 Background

Sexually transmitted infections (STIs) other than HIV constitute a major health and economic burden worldwide, and account for about 17% of economic losses that are sustained in developing nations due to various morbidities. Globally, an estimated 457 million new cases of curable STIs occur each year, with over 72 million occurring in sub-Saharan Africa. (1) The most common curable non-viral STIs are gonorrhoea, syphilis, chancroid, lymphogranuloma venereum, trichomoniasis and chlamydial infections. The most common viral STIs include human papilloma virus (HPV), hepatitis B virus (HBV) and herpes simplex virus type 2 (HSV-2) infections.

The main mode of transmission is through unprotected penetrative sexual intercourse. STI-causing organisms can also be transmitted from mother to child, through blood transfusions or through other exposure to blood or body fluids. Each new infection carries risk of serious complications, including infertility, ectopic pregnancy that may cause maternal death, severe congenital infections in newborns and stillbirths. Furthermore, STIs may cause genitor-urinary cancers, including cancer of the cervix in women, and primary liver cancer, the most common forms of cancer worldwide. STIs also contribute significantly to the workload in primary healthcare facilities. In addition, the impact of STIs is aggravated by the fact that they can boost susceptibility to HIV infection and AIDS.

HIV infection is up to ten times more common in people with current or prior STIs. Both infections share similar risk factors, and several studies have demonstrated the potent interaction between STI and very early HIV infection, which, owing to the high HIV viral load at this stage, could account for 40% risk of HIV transmissions. (2,3) Strengthening of STI prevention and control programmes is therefore crucial. The main method of reducing the impact of STIs is through effective case identification, management and promotion of preventive measures. Most STIs can be prevented through modifications of high-risk behaviours by adopting safe sexual practices such as monogamy or consistent and correct use of condoms. While non-viral STIs can be completely cured with antibiotics, intensive community and individual patient-centred prevention strategies are needed for incurable viral STIs and to prevent re-infections with curable non-viral STIs.

1.2 Sexually transmitted infections in SADC

1.2.1 Epidemiology of STIs

Sexually transmitted infections are an important public health problem in the Southern African Development Community (SADC) region. Comprehensive data regarding the prevalence of various STIs or STI syndromes in the region are sparse, however. Most of the epidemiological data come from independent prevalence studies and a few sentinel surveillance sites in a small number of Member States. The following data provide a glimpse of the current STI situation in the region. Urethral discharge and vaginal discharge are the two predominant STI syndromes. Data from South Africa show urethral discharge syndrome (UDS) in men to be the most common syndrome, with national prevalence of 64% (range 59.2%-76.4%), while prevalence of vaginal discharge syndrome (VDS) was 60% (range 48.3%-75.2%). Sentinel surveillance reports from Malawi estimated 27% prevalence of VDS, and 19% prevalence of UDS. Prevalence of genital ulcer syndrome (GUS) was reported to be 16% and syphilis sero-positivity rate was 11% in Malawi. Botswana reported 2.5 % syphilis sero-prevalence among attendees of health facilities. (4) According to the Madagascar Biological Surveillance Survey 2007, the syphilis prevalence was 4.5% among pregnant women, 6.7% among STI patients and 12% among female sex workers.

Aetiology of STI syndromes

In recent years, evidence has accumulated suggesting that the majority of cases of genital ulcer syndrome in sub-Saharan Africa are due to viral – and not bacterial – infections. Findings from a recent study in Botswana suggest a reduction in the proportion of ulcers due to bacterial causes such as syphilis and chancroid, and an increase in the proportion of ulcers due to herpes simplex virus. (5) Herpes simplex virus has been attributed in 30-50% of GUS cases, as shown in studies in Malawi, Namibia, Swaziland and South Africa. (2,6,7) That evidence indicates the emergence of viral causes (HSV-2) in the pathogenesis of genital ulcer syndrome. The change in epidemiology may be attributed to the introduction of syndromic management of STIs. The most common pathogens in urethral discharge patients in SADC region are Neisseria gonorrhoeae, Chlamydia trachomatis and Trichomonas vaginalis. While N. gonorrhoeae is implicated in 50-60% and C. trachomatis in 20-30% of UDS, T. vaginalis has also emerged as a frequent pathogen.


It has been noted that 5-20% of UDS cases in the region are T. vaginalis positive. (8,9,10) Similarly, trichomoniasis and bacterial vaginosis are common causes of vaginal discharge syndrome among women. Drug resistant forms of N. gonorrhoeae have been evolving in the SADC region. Studies in Malawi, Mozambique, South Africa and Tanzania have assessed the antimicrobial susceptibility profile of gonococcal isolates in the respective geographical locations. (11,12,13,14) Studies from South Africa illustrated high levels of resistance to penicillin and tetracyclines. Ciprofloxacin (quinolone) resistance ranged from 7% to 44%. Overall, the gonococcal isolates remained susceptible to Ceftriaxone, Cefixime, and Spectinomycin. (15) Studies from Malawi, however, showed susceptibility of gonococcal isolates to Gentamicin, while studies from Mozambique and Tanzania showed susceptibility to Ciprofloxacin. These findings highlight the importance of regularly monitoring the local susceptibility trends of N. gonorrhoeae to guide therapy at the local health facilities. However, the emergence of quinolone-resistant N. gonorrhoeae in the region is a significant cause for concern, and requires prompt and appropriate measures.

Predisposing factors

Risky behaviours

The factors that determine healthy sexual behaviour are complex and context-specific. Within the SADC region, behaviours that pose high risks for STI and HIV transmission include:

- Low levels of knowledge about STIs and HIV;
- Inconsistent condom use;
- Multiple sexual partners;
- Gender disparities leading to unequal power in sexual decision-making; and
- Inappropriate health seeking behaviour for STIs.

Although the behaviour change communication is a part of STI syndromic case management, the gains from the behaviour change perspective in SADC are relatively small. Often the same patient is treated for the same STI (recurrence or re-infection) several times. This is an indicator of continued high-risk sexual behaviour or exposure to a partner who engages in such behaviour. It could also result from the poor quality of STI care, and experiences of stigma and discrimination. (16) Continued risky sexual behaviour of individuals is bound to undermine gains from improved clinical case management.

Behaviour change used to be considered a population- or community-based activity. Sustained behaviour change, however, is a personal responsibility that should be encouraged and supported by service providers through patient-centred consultation. While existing behaviour change messages should be emphasised, caution must be exercised not to underestimate the importance of the underlying socioeconomic and sociocultural dynamics. In the SADC region these kinds of dynamics pose challenges to implementation:

- Language, cultural and communication barriers. Health worker migration in most SADC Member States has increased the dependency on foreign workers for service provision. This can lead to cultural and communication barriers;
- Lack of privacy in primary healthcare infrastructures. The design of health facilities is often inadequate to offer privacy to patients in the context of high workloads;
- Health facilities often experience time constraints due to patient overload, resulting in too little time being devoted to counselling patients;
- High cost of follow up consultations. Behaviour change requires regular follow-up, and often more than one session is needed to achieve the desired change. Moreover, when user charges apply, financing the entire process may prove too costly to the patient (especially when lesions have healed, suggesting successful treatment);
- Illiteracy and submissiveness of patients, especially women and rural residents.

Cross-border migrations

SADC as a region has a long history of migration, particularly labour migration. In recent years, the region has witnessed a proliferation of migration patterns, partly related to SADC's pursuit greater economic integration (which promotes regional human mobility). Migration is also driven by economic and political hardships.

The region is experiencing an increase in the number of illegal or undocumented migrants. Between 1994 and 1996, the number of deportations of SADC citizens from South Africa increased from about 90,000 to over 200 000. Migrants and people living in migration corridors are at especially high risks for STIs and HIV. Illegal immigrants are more vulnerability due to their lack of access to quality healthcare. Since a patient from one country may seek care in a neighbouring country, harmonisation of STI management approaches is required. Synergy should be built between various national STI control programmes to take advantage of the strengths of neighbouring states' systems and to share those strengths and expertise.

High-risk and vulnerable populations

One of the most important challenges in STI control is orienting services to reach the people who are most frequently exposed to infection and who are most likely to transmit the infection to others. (17) Commercial sex work and sex between men is illegal in most Member States. This results in official and social hostility towards men who have sex with men (MSM) and towards commercial sex workers (CSWs). Recent studies have confirmed the widespread existence of MSM groups across Africa, with high rates of HIV risk behaviour and evidence that they are linked into heterosexual sexual networks. Yet most MSM have no safe access to relevant STI and HIV information and services, and many Member States do not yet recognise or address the needs of these men in the context of national STI and HIV prevention and control programmes.

Gender inequality and the low status of women are some of the sociocultural factors that increase the vulnerability of women. The high burden of STIs reported in youth and adolescent populations indicates that youth are at increased risk of STIs and that youth-friendly health facilities are needed to improve their access to care. (18) An effective response to STI control requires improved strategic information, the development of appropriate interventions, and actions to remove or reduce structural and social barriers so STI services can become more accessible to all high-risk groups and vulnerable populations, including MSM, CSWs, migrants, transport workers, prisoners, intravenous drug users, youth, adolescents and women. A study in Tanzania among commercial sex workers showed that three-monthly examinations to screen for gonorrhoea infection resulted in a decline of prevalence from 22% to 6.8% among CSWs. HIV incidence declined from 13.9/100 to 5.0/100 person-years over three consecutive nine-month periods. Those findings indicate that the relatively simple intervention consisting of regular three-monthly STI screenings, along with syndromic management in combination with HIV and STI information and counselling sessions can effectively reduce STI among CSWs. Such targeted interventions should be implemented more widely in high-risk environments in SADC. (19)

STI-HIV interaction

Epidemiological and biological evidence points to a complex relationship between STIs and sexually transmitted HIV. First and foremost, STIs are linked to HIV infection due to the similar behaviours that put people at risk to infection. Both STIs and HIV can be sexually transmitted by vaginal, anal and oral intercourse. Thus, populations with high rates of STIs tend to have high rates of sexually transmitted HIV. In addition, there are well-established biologic mechanisms whereby STIs directly increase the chances of transmitting and acquiring HIV. Genital ulcers provide easy access for the virus to the bloodstream through disruption of skin and mucous membrane barriers. Other STIs, such as trichomonal infections, have been shown to greatly increase the volume of the HIV virus in genital secretions, as well as the number of inflammatory target cells in which HIV replicates. Herpes simplex virus type 2 (HSV-2) and Trichomonas vaginalis are more common causes of STIs than syphilis, chancroid, gonorrhoea, and chlamydia, and are strongly associated with HIV infection. (20) The SADC region contains only 4% of the world's population, but about 40% of the global HIV case burden occurs there. HIV prevalence rates in the region vary from under 1% (Seychelles) to above 20% (Swaziland) in general adult populations. Possible explanations for such variation in HIV prevalence include: differences in prevalence of various STIs leading to differences in transmission dynamics, geographical isolation (slower introduction of HIV in remote islands, compared with mainland states), prevalence of male circumcision, and differences in socioeconomic factors. (21) It is clear therefore that effective STI management is a vital aspect of an effective HIV prevention strategy. It is imperative that STI control programmes are strengthened in order to ensure effective STI management and thereby contribute to HIV prevention in the region. There is growing interest in male circumcision as a protective factor influencing the transmission of HIV and STIs during sexual intercourse. Several epidemiological studies have provided strong evidence that circumcised men are at significantly lower risk of acquiring ulcerative STIs (syphilis, chancroid and herpes). Their female partners were found to be at the lower risk for bacterial vaginosis and trichomonal infection. In light of the high STI and HIV burden in the region, male circumcision as a STI prevention strategy should be considered.


1.2.2 Status of National STI control programmes

Member States' focus on HIV AND AIDS has broadened, thanks to recognition of the importance of STIs as factors fuelling the AIDS epidemic. Government investment in STI control has increased steadily, but varies in content and extent across the region. It includes:

- Political commitment to establish dedicated directorates within ministries;
- Existence of national AIDS strategic plans or national STI guidelines in most Member States;
- Procuring STI medicines and equipment;
- Training of primary healthcare staff on the syndromic approach; and
- Implementation of some proven interventions for the prevention and control of STIs at the national level.

Structure of national STI control programmes

National STI control programmes aim to reduce the prevalence and incidence of STIs in their respective states. They are structured as vertical programmes. However, individual case management at point-of-service is integrated into the primary healthcare system. Typically, a national directorate is assisted by a team of provincial or district coordinators and supervisors, which supports service providers in the primary healthcare system. At the national level, there is a focal person who is responsible for the overall management of the national programme.

National STI Control Programmes have allocated the following resources:

- National STI guidelines: Most Member States have adopted WHO's recommended syndromic approach for managing STI patients in resource-poor settings. Accordingly, Member States have drafted national STI guidelines. This demonstrates political will among the Member States. The guidelines are printed and disseminated throughout the primary healthcare system. There are also a multitude of capacity building initiatives by government and nongovernmental organisations (NGOs) for operationalising the national STI guidelines by the service providers.
- Human resources: The number and quality of staff vary across the Member States. Most primary health facilities are managed mainly by nurses and healthcare providers other than the physicians. Specialist STI care is available only at secondary-level hospitals.
- The syndromic approach discourages reliance of service providers on laboratory tests for diagnosis. Therefore, laboratory services for STIs are available only at specialised centres for referral cases. However, basic screening tests (such as rapid plasma Reagin or rapid treponemal tests for syphilis) are available at primary care centres. There is universal screening of all pregnant women for syphilis. Specialised syphilis tests such as Treponema pallidum Haemagglutination Assay are available at the referral centres.
- HIV testing and counselling (HTC): HTC services are available at the primary healthcare level. Rapid testing is used at most of the health facilities. Enzyme-linked immuno-sorbent assay (ELISA) and western blot tests are available at the referral services.
- STI medicines and supplies: STI medicines and supplies are not procured separately for the STI programme. As such, this important resource is not directly influenced by the control programme, but relies on the general status or capacity of the drug management system of the country. Medicines and supply management at the health facility is performed by nurse practitioners or pharmacy personnel.
- Referral linkages: Primary healthcare facilities refer complicated STI cases, treatment failure or patients requiring specialist care to secondary-level hospitals. Primary healthcare also forms linkages with family planning, HIV testing and counselling services, male circumcision services, reproductive health, and youth- or adolescent-friendly facilities.

- Services for high-risk and vulnerable population: Services for CSWs, MSM, injecting drug users, migrants, refugees, prisoners and transport workers are provided mainly through NGOs or by the private sector. STI management also features customised prevention packages, including promotion of VCT, access to male and female condoms, and STI symptoms recognitions information. Some facilities incorporate youth-friendly practices for adolescent populations.

- Partner notification and treatment: Most of the Member State health facilities practice passive contact tracing or the partner notification method. In the latter method, standard "Partner Notification Slips" are provided to the patient who then hands it to his/her partner/s. Those partners are required to visit the health facility for medical assistance. Some Member States have developed strategies to strengthen STI partner tracing where both client referral (passive) and provide-initiated (active) referral are recommended, where possible (especially for UDS and GUS cases). However, client referral using "Partner Notification Slips" is the most common practice currently.

- Male circumcision services: Member States are considering male circumcision services in the primary health system as a strategy for HIV prevention. Member States are at various stages of implementing a male circumcision strategy. A few Member States have conducted feasibility assessments to develop strategic policies and guidelines. Some have begun implementing male circumcision services via public health facilities and by integrating them with other services, such as male sexual and reproductive health. There has been growing interest among Member States to include neonatal circumcision among interventions. Feasibility and acceptability studies of universal neonatal circumcision are being conducted.

- STI surveillance system: In most Member States, STI case reporting is integrated into the general disease surveillance system or integrated disease surveillance. The general health information system includes STI data items. The reporting in most Member Sates is done through a vertical system. Data related to STIs and various other diseases are reported using a single, standard data collection form at public primary healthcare facilities. The reports are then submitted to the sub-district level, where the data from multiple facilities are collated. An aggregated report is then sent to the district or provincial office, which reports to the central or national programme managers.

Well-functioning STI surveillance systems are essential for monitoring trends and programme planning. Yet only a few Member States have established systems for STI surveillance and periodic antimicrobial sensitivity testing. In Member States where sentinel surveillance exists, sentinel data is collected on urethral discharge (males), genital ulcers, vaginal discharge, lower abdominal pain, scrotal swelling, inguinal bubo, and syphilis test results among pregnant women. In addition, for women, the data is stratified by non-pregnant or pregnant status.

1.2.3 Current challenges

There is a range of challenges that impede scale-up of the prevention and control of STIs in the SADC region. (22)

Lack of strategies to reach vulnerable and most-at-risk populations
Poor socioeconomic conditions in the region lead to high rates of cross-border movements of people, and commercial sex work. There is not enough information about most-at-risk and vulnerable populations to clearly inform policy and programme development. Deeply ingrained gender roles (and the generally low status of women) and sociocultural practices such as multiple concurrent partners and taboos about discussing sex negatively affect health care seeking, as well as STI and HIV prevention efforts. Working with vulnerable and most-at-risk populations requires an enabling environment to reduce vulnerability and increase access to services. However, the public health approach is lacking in STI case management in primary health care facilities, as shown by a lack of strategies for behaviour change communication and the failure to reach vulnerable and most-at-risk populations on a sufficient scale.

Limited resources
While resources for STI programmes have increased over the past decade, they have not matched the increased burdens of disease. Successes can be noted in the procurement and distribution of condoms for example, but availability of adequate staff, infrastructure, medicines and equipment is still inadequate, especially in rural and poor urban areas. Medications are often out of stock due to inadequate supply, mismanagement of stock and lack of supervision. Personnel turnover is high, mostly due to poor incentive schemes in the public sector.


Poor quality assurance of STI care services
Another important aspect of STI control is rapid and effective treatment at the health facility where a patient first seeks healthcare. The primary care clinic in the private or the public sector is often the first place people seek care. In most Member States, regulation of the quality of services in both the public and private sectors is weak. Poor quality STI care often results from a lack of appropriate training, irregular quality assessments, and a lack supervision and feedback among service providers. Unlike the public sector, private providers are not accountable in terms of quality and service performance. It is therefore necessary that high-quality, appropriate STI care services are available at all levels of the health delivery system, including the private sector.

Inadequate surveillance, monitoring and evaluation system
The monitoring of STI prevalence is crucial for the evaluation of STI treatment programmes, and can also provide an indirect measure of change in sexual behaviour. There is paucity of such information in many SADC Member States. Not all of them monitor STI prevalence, the aetiologies of STI syndromes or anti-microbial resistance patterns. Inadequate resource allocation and capacities of staff to initiate and sustain surveillance systems are the chief reasons for poor surveillance systems. Because STI surveillance systems do not function adequately in the region, there is not enough information available for planning, implementing and evaluating STI and HIV prevention and care programmes. Other problems with STI surveillance include:

- A lack of clear guidelines;
- A lack of commitment and feedback from ministries of health;
- Use of an excessively long list of notifiable diseases (diseases that, by law, must be reported to health authorities);
- Confidentiality concerns;
- Non-reporting from the private and informal sectors; and
- Absence of screening programmes leading to the under-diagnosis of asymptomatic STIs.

The shifting epidemiology of STIs and the emergence of drug resistant pathogens calls for on-going research and periodic review of treatment protocols.

Ineffective programme advocacy and management
Some of the weaknesses encountered at programme advocacy and management level include:

- Lack of coordination and collaboration with other health programmes;
- Poor regulation of private healthcare sector;
- STIs problems are not being prioritised during planning of healthcare services;
- HIV prevention programmes operate in isolation from Sexually Transmitted Infections programmes; and
- Advocacy for STI programmes are inadequate for resource mobilisation.

1.3 The SADC Framework for STIs

The improved control of the STI epidemic in the SADC region promises numerous health systems and public health benefits. International organisations such as WHO, the Joint United Nations Programme on HIV/AIDS (UNAIDS) and the US Centers for Disease Control and Prevention (CDC) provide global guidelines for STI control. However, it is important to adapt these guidelines to the resource challenges and epidemiological realities of the SADC region. Thus, a regional framework is needed that clearly spells out the priorities, opportunities for collaborations, and resources that are required for achieving effective STI control and management. And that framework should be aligned with regional and international best practices. SADC Member States have made several declarations of commitment for improving the health of citizens and combating HIV AND AIDS in the region. Millennium Development Goals (MDG) 5 and 6 require that Member States halt and begun to reverse the spread of AIDS, and reduce maternal mortality rates by three quarters by 2015.

There is strong evidence that STI control can reduce HIV transmission and that the treatment of STIs can prevent maternal deaths associated with ectopic pregnancies. The Maseru Declaration on combating HIV AND AIDS in the SADC region, and the SADC Protocol on Health both require a concerted response from Member States to harmonise policies and strategies for HIV prevention and care. Collaborative and coordinated efforts in STI prevention and control are needed to enhance those efforts.

This Framework seeks to strengthen current responses to the STI epidemic by addressing the challenges identified in the SADC region. It is intended to assist policy- and decision-makers, donors, programme managers and service providers to appreciate the various issues that affect the achievement of quality STI management. It ultimately seeks to improve the effectiveness of national STI control programmes in the context of regional benchmarks. The Framework departs from a narrow definition of scope (for example, treatment of symptomatic cases) and emphasises the links between the many aspects of STI control in order to achieve:

- Better coordination and harmonisation of the response to STIs among Member States;
- Comprehensive multi-sectoral response to STIs; and
- Improved quality of STI care services across national borders.

The Framework provides guidance on:

- Enhancing clinical approaches that include counselling for risk reduction and encouraging healthy sexual behaviour;
- Norms and standards that are required for benchmarking the quality of STI service provision;
- Strengthening the provision and management of equipment, medicines and supplies that are needed to support quality services; and
- Improving the collection and management of STI-related information at health facility level to guide the strategic planning of STI control programmes.

The guidance documents can be used as a:

- Reference Manual for service providers in their day to day activities;
- Guide in designing evaluation and supervision tools;
- Guide to assess and improve quality of care; and
- Guide to design and implement STI surveillance system.

1.3.1 Process of Framework development

The Framework is informed by a regional pilot initiative that was implemented for a period of more than two years in Botswana, Lesotho, Namibia and Swaziland. The pilot initiative generated practical lessons and experiences through interacting and collaborating with policy-makers, technical experts, programme managers and service providers from both the public and private sectors of the four countries. Those lessons and experiences were enriched through technical consultative regional meetings which drew participants at the levels of service providers, supervisors, programme managers, national planners and technical experts from all SADC Member States, as well as various UN agencies and other regional technical partners. Senior officials from Ministries of Health and national AIDS authorities of all Member States approved the content of the Framework at a regional conference of the “SADC/DFID Regional HIV and AIDS Project” in Swaziland, in September 2006. In 2009, two regional consultations with programme managers, technical experts from all SADC Member States, and technical partners were held to review and update the Framework. The first technical consultation (held in Livingstone, Zambia, in September 2009) reviewed and updated draft STI clinical guidelines and tools in view of the emerging issues, priorities and changing trends in STI epidemiology in the region. In response to the comments of participants, a revised Framework was drafted and presented during a consensus-building


workshop, held in Victoria Falls, Zimbabwe, in December 2009. The Framework was then presented to Ministers of Health and those responsible for HIV and AIDS in April 2010, and they gave further feedback for incorporation into the Framework. Specifically, they suggested chapters addressing Hepatitis C and condom supply chain management, as well as behaviour change communication. The present Framework is the outcome of those meetings. Rather than a work of classical experts, the Framework offers an evidence-based, systems-oriented, contextualised and practical approach to STI management and control in SADC region. It is based on strategies that have proven to be effective in limiting transmission of STIs and reducing the burden of disease. The Framework is consistent with the WHO Africa Regional and WHO Global STI Control Strategy.

2. STI CASE MANAGEMENT

At least 30 pathogens are known to be transmitted from person to person through unprotected sexual intercourse. They tend to cause similar signs and symptoms (such as genital ulceration or discharge). In addition, infected patients may experience symptoms in more than one site simultaneously (for example, the cervix and vagina), and more than one pathogen can cause an overlap of clinical signs and symptoms (for example, simultaneous urethral infection with chlamydia and gonorrhoea).

2.1 STI diagnostic approaches

There are three approaches to STI diagnosis. The two traditional approaches are aetiological and clinical, while the third is a syndromic approach.

2.1.1 Aetiological approach

This approach uses laboratory tests to identify causative agents. The main advantage is that the diagnosis is precise. However, the approach requires trained personnel and sophisticated laboratory equipment, which are seldom available at primary healthcare level. Laboratory tests are often time-consuming, leading to delays in treatment (with patients remaining infectious until treatment occurs).

2.1.2 Clinical approach

The clinical approach uses clinical experience to identify symptoms that are typical of a specific STI. The approach relies heavily on service providers' skills. It has been observed that the clinical approach is accurate in only about 50% of cases. This may lead to misdiagnosis of infections, leading to complications and continued transmission.

2.1.3 Syndromic approach

This approach uses symptoms and signs to identify and treat the clinical syndrome. A number of different sexually transmissible pathogens produce a small number of syndromes. A syndromic diagnosis is made when the patient's signs and symptoms are matched to a particular STI syndrome. Syndromic management begins when a treatment plan for each syndrome is designed to address the pathogens most likely to be responsible for the syndrome. In general, syndromic management requires treatment for more than one pathogen, so that antimicrobial therapy is effective against all of the pathogens that commonly cause the syndrome. The advantages of the syndromic approach include the fact that complete STI care is offered at first visit. Treatment for possible mixed infections can occur, care is provided by a range of health care workers, and prevention and compliance activities are addressed through education, counselling, partner treatment and condom promotion.

Thus, effective syndromic case management consists not only of antimicrobial therapy to obtain cure and reduce infectivity, but it also provides comprehensive care of a patient's reproductive health. However, there are drawbacks. Over-diagnosis and over-treatment may result in increased drug costs, possible side effects of multiple drugs, alterations in vaginal flora, and a potential for increased drug resistance.

The approach is not useful for detecting infections among asymptomatic individuals. Similarly, the syndromic approach for vaginal discharge is poorly predictive of the presence of cervical chlamydial and/or gonococcal infections.

2.2 Rationale for syndromic approach in SADC

The syndromic approach remains the most appropriate one for the SADC region in view of the lack of laboratory facilities needed to diagnose STIs aetiologically in primary heath care facilities, and because of the need to avoid the risk of loss to follow up of patients. The syndromic case management of STIs can be integrated into primary care settings, such as primary care, maternal and child health, and family planning clinics. Integrating the syndromic approach for STI care provides greater accessibility, reduced costs, and can avoid the social stigma associated with specialised STI clinics. However, the approach relies heavily on flow charts or algorithms. Service providers must be trained to use flow charts to evaluate signs and symptoms, and to determine the appropriate method of case management and treatment. It is important to note that the approach goes beyond the establishment of a diagnosis and includes non-drug management, including behavioural modifications.

2.3 Scope of STI case management guidelines

The present guidelines are intended to assist service providers working at public or private primary healthcare facilities. The clinical case management guidelines can be used as a reference for managing STI-associated syndromes, as well as other STI conditions not presented as syndromes. Section 2.4 describes the essential components of clinical case management. Sections 2.5 and 2.6 provide treatment guidelines for commonly occurring ST-associated syndromes, and other STI conditions in the SADC region. Section 2.7 describes clinical management of STIs in relation to the specific needs of most-at-risk and vulnerable populations

2.4 Essential components of syndromic case management

The essential components of syndromic management for STI patients include:

- History taking and physical examination;
- Diagnosis and treatment based on syndromes;
- Health education;
- Counselling on risk reduction and prevention;
- HIV testing and counselling;
- Condom promotion and provision;
- Partner notification and treatment;
- Provision of male circumcision for eligible men;
- Cervical cancer screening for women;
- Follow- up; and
- Referral where appropriate.

2.4.1 History taking

- All patients attending a facility or clinic for STI care, or for a routine medical examination, should have their history taken and should undergo a complete physical examination.
- Patients should be interviewed and examined in a well-lit private room.
- Case record forms should be filled out as accurately and completely as possible and any laboratory specimens taken should be clearly labelled.
- Proper reporting of STI cases is required for STI surveillance activities.


History of presenting illness

It is necessary to determine whether the patient has any symptoms. If s/he does, the service provider must list them chronologically, along with the duration and progression of the symptoms. The service provider must have an open mind to enquire about STIs in other presentations, since some patients may present with headaches or insomnia etc., even though the main, underlying problem may be an STI.

The service provider must ask specifically whether the patient has symptoms related to the genitourinary system. Symptoms that should be enquired about include:

- Burning or frequency of micturition;
- Discharge from urethra in men;
- Vaginal discharge;
- Swelling and/or pain in the groin;
- Sores around the genitals and anus;
- Lower abdominal pain in women;
- Painful vaginal intercourse (Dyspareunia);
- Rectal discharge or pain;
- Difficulties with urination or defecation;
- Itching and/or discomfort in the perineum, peri-anal, and pubic areas;
- Non-itchy skin rashes or warty lesions.

The service provider should obtain details about the previous and current gynaecological, obstetrical, medical and surgical history. The patient should be asked whether he/she has had any STIs in the past, and whether the patient is currently taking any kind of medication and whether s/he is allergic to any medications. Patterns and use of alcohol or other recreational drugs, if any, should also be obtained.

Taking sexual history

A sexual history must be acquired from patients before examining them and managing their sexual health problems. The patient must be assured that the information he/she provides to service providers is held in strict confidence. The service provider should do a behavioural risk assessment of the patient to explore the possibility of risk behaviours, including sexual exposure sites (anal or vaginal), multiple concurrent partnerships or sexual networks, inconsistent condom use with regular and/or casual sexual partners, and concurrent use of alcohol or other recreational drug use (including intravenous drugs). A thorough sexual history will guide appropriate risk reduction and prevention counselling.

There are several barriers to open and frank discussions of sexual health issues between patient and service provider. For example, many service providers are embarrassed to take a sexual history. On the other hand, patients are also reluctant to raise sexual health issues with their service provider because they feel embarrassed or ashamed.

Additional barriers to open discussion may include differences in age, gender, race, sexuality, and cultural differences. The medical language used to describe genital anatomy and sexual behaviour is complicated and is not commonly used in the wider community. The best approach for the service provider is to adapt to the patient's level of understanding, culture and language.

Table 2.1: Guidance for clinical history taking in STI patients

Guide for clinical history taking in a STI case	
General Details	Age Sex Marital status Residence Occupation Telephone number or any other contact information
Present Illness	Presenting complaints and duration
If complaints of vaginal discharge	Last Menstrual Period (LMP)? Itching? Odour? Colour and consistency of discharge?
If a woman complaints of lower abdominal pain	Vaginal bleeding or discharge? Painful or difficult pregnancy or childbirth? Painful or difficult or irregular menstruation? LMP: Missed or overdue period? History of recent delivery or abortion? Painful vaginal intercourse? Fever?
If complaints of genital or peri-anal ulcer	Site? Painful? Recurrent? Appearance? Spontaneous onset? Pain and swelling in the inguinal region?
If urinary symptoms	Pain or burning while passing urine? Frequency? Discharge from urethra?
Other symptoms	Warts? Lumps or swellings? Skin rashes? Discharge from anus? Difficulty in defecation/painful defecation?
Medical History	
Any past STI?	Type? Dates? Any treatment and response? Result of any prior tests?
Other illness?	Type? Dates? Any treatment and response? Result of tests? Has ever had an HIV test? If yes, when? If HIV- positive: Taking ARV? CD4 count?
Medications?	Recent or Current medications?
Drug allergies?	History of allergies? Type of drug reactions? Name of drugs? Probe about penicillin if not spontaneous
Drug and alcohol use?	Patterns and frequency of use? Any injection drug use?
Sexual History	Whether sexually active? Date of last sexual intercourse? Sites of sexual exposure (i.e., vaginal, oral, anal)? Symptomatic partner? Number of sexual partners, any new partner? Condom use last sex? Condom use with regular partner/spouse? Condom use with other partners? Consistent condom use? Use of contraceptive methods?

2.4.2 Physical examination

Before beginning the physical examination, the service provider should explain to the patient what he/she is about to do and what can be expected from the examination. The examination should be carried out in a well-lit private room to ensure confidentiality. The patient should be covered with a sheet and should expose only those parts of the body that will be examined. The patient should be allowed to ask questions and to take a close look at equipment (such as speculums or swabs) before they are used, and should be explained how they will be used so that the patient understands the procedures of the examination.

Some patients may refuse examination for some or all of their ano-genital area, even after the benefits of such an examination has been clearly explained. If the patient does refuse, explore the reasons for refusal. Ask, for example: "Would you prefer a same-sex service provider or a chaperone or friend in the room? Are there other cultural barriers?". If the patient still refuses, the service provider must respect the patient's choice; this should be documented and explained to the patient. It is possible that the patient will allow examination on a subsequent visit after more trust is established.

General physical examination
During the general physical examination, the service provider should:

- Examine the mouth with the aid of a wooden tongue depressor and examination light and inspect for sores, pharyngeal inflammation, and oral thrush (candida);
- Palpate the neck, the axillae, supraclavicular, submandibular and epitrochlear areas for enlarged lymph nodes;
- Examine the breasts, particularly in women;
- Look for rashes, swellings, and sores on the chest, back, and abdomen;
- Inspect the patient's hands, forearms, and inside the elbow, and note any rashes, nail changes, or "needle track" marks; and
- Especially look for the presence of the stigmata for HIV infection. These may include oral thrush, generalised lymphadenopathy, generalised skin or mucosal rashes, and lean and thin body.

Abdominal examination
Abdominal examination should start with inspection, followed by superficial and deep palpation. Check particularly for tenderness deep in the pelvis in women. Examine the pubic area and palpate for inguinal lymph nodes.

Genital examination
The examiner should always use clean and disposable gloves for all genital examination procedures. Genital examination in men should proceed as follows:

- Examination of the penis: First the foreskin should be retracted to look for redness, rash, discharge, warts and ulcers on the glans penis, and then the urethra should be milked for discharge if an obvious urethral discharge is not seen.
- 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 tenderness.
- 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 of the peri-anal area: The peri-anal area should be visually inspected for any lesions.

Genital examination in women should proceed as follows:

- Examination of the vulva: The labia should be separated to visually inspect for any lesions in the vulva. The Bartholin's glands should be palpated to rule out any inflammation.

- Examination of the peri-anal area and perineum: The peri-anal area and perineum should be visually inspected for any lesions.

- 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. Note the colour and consistency of any vaginal discharge present.

- Digital bimanual examination: Physical examination in women is not complete without a digital bimanual examination, which will help elicit 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 abdomen. The area between the examiner's two hands is palpated and the presence of any tenderness, swelling or masses is noted.

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.

Cervical cancer screening
Perform cervical cancer screening procedures (such as Pap smear examination) prior to conducting internal examination (speculum and bimanual examination) during the follow-up review visit.

2.4.3 Diagnosis and treatment

On the basis of the history and the physical examination, the service provider should make a syndromic diagnosis and provide clinical management and treatment to the patient using the appropriate flow charts as recommended in this document (see sections 2.5 and 2.6). Treatment recommendations should be adapted based on the local epidemiological information (such as aetiology of common STI syndromes, STI prevalence within different populations, local patterns of antimicrobial susceptibility and cost-effectiveness).

2.4.4 Health education

Educating a patient is an interactive process that involves assessing what the patient already knows and then building on that knowledge as further information is acquired. The knowledge assessment helps form the basis of a successful risk-reduction plan. In every instance, the contact of STI patients (symptomatic or asymptomatic) with a health facility should be used to promote safer sexual behaviour and educate patients on how to minimise or eliminate the risk of acquiring an STI again or transmitting STI or HIV infection to others.

- Each patient should be properly counselled about the nature of the infection, its consequences, the importance of complying with treatment regimens, his/her risk behaviour, chances of acquiring and transmitting STI and HIV infection, and the importance of safer sex behaviour and knowing one's HIV status.

- The patient should be educated on how to correctly use condoms.

- The patient should be encouraged to bring his/ her sexual partner(s) for examination and treatment even if they do not have any symptoms of STIs.

2.4.5 Risk reduction counselling

Risk reduction counselling is aimed at creating an environment that allows the patient to reflect on specific patterns of sexual behaviour s/he have or are still engaged. In many communities, people with STIs do not recognise the symptoms or do not consider the symptoms to be serious or abnormal, and consequently do not practice safer sex (including using condoms) or seek prompt treatment from qualified health workers. In addition, they tend not to follow treatment instructions or tell their partner(s) that they may be infected and need treatment.

Thus, the overall goal of risk reduction counselling should be promotion of behaviours that have positive health benefits for the individual, as well as prevent the spread of STIs and HIV in the community. They include:

- Prompt care seeking for symptoms at clinics/hospitals;
- Treatment compliance/adherence;
- Communicating with partners about the need to be treated;
- Practicing safer sex including the use of male and female condoms;
- Delaying sexual activity among youth; and
- Decreasing the number of sexual partners

During the counselling session, the service provider should act as a sounding board that helps the patient notice and assess the identified behaviour patterns against well-established facts about the risks of STI and HIV transmission. In this approach, the patient is not told that his/her behaviour is risky, but s/he realises it as the counselling progresses, thus avoiding the perception of being judged. Once patients have identified the various risky behaviours and appraised the dangers to their health or lives (and that of their partners), they can consider changing that behaviour. The service provider can assist by suggesting healthy alternatives for the risky behaviours that have been identified. The depth and intensity of risk reduction counselling differs with the stages of behaviour change. Regular follow-up counselling is essential where the provider encourages patients by reinforcing their attempts to reduce risky behaviours.

2.4.6 HIV testing and counselling

- All patients receiving STI care services should be counselled and tested for HIV.
- As part of STI and HIV risk-reduction counselling, each individual should be given information and the opportunity to take an HIV test, as per the country's national HIV testing and counselling guidelines.
- Patients should be informed that the clinic can facilitate access to confidential HIV testing and counselling (HTC).
- Each health facility should provide HTC or develop formal referral linkages with a local HTC centre that is accessible to patients.
- Follow up HTC should be provided as appropriate.
- STI/HIV couple counselling should also be promoted wherever feasible.

2.4.7 Condom promotion, provision and demonstration

- Use of condoms should be promoted as a method of STI and HIV risk reduction during sexual intercourse.
- Male and female condoms must be made available in all health facilities, particularly those treating patients with STIs, and condoms should free of charge or priced affordably.
- During the counselling sessions, the service providers should explore the capacity of the patients to use the condoms, discuss the importance of condom use, demonstrate correct condom use (using penis and vagina models), and provide male and female condoms.

2.4.8 Partner notification and management

This is an important public health activity by which the partners of persons with STIs are traced and offered medical and counselling services. The patient should be encouraged to inform all of his/ her partners about the possibility of them having the infection and the need to seek medical advice and treatment. This should be done in a voluntary and non-coercive manner. Service provider should also explore the risk of STI and HIV transmission in multiple concurrent partnerships, and stress the benefits of partner treatment in such cases.

2.4.9 Provision of male circumcision to eligible men

Male circumcision entails the removal of the entire foreskin (prepuce) from the penis. There are clear biological reasons why circumcision may protect against both bacterial and viral STIs. The warm, moist area under the foreskin may provide a suitable location in which the pathogens can replicate. The inner surface of the foreskin is vascular and rich in the Langerhans cells, which have a similar antigenic structure to that of CD4 cells. Langerhans cells act as receptors and entry points to the HIV virus. Furthermore, uncircumcised men may be at increased risk as the result of the entry of pathogens through the inner surface of the foreskin and fraenulum, or through micro-abrasions occurring during intercourse. Thus, removal of foreskin provides protection against HIV virus and other STI pathogens entry. The benefits have been confirmed in several epidemiological studies that have shown that circumcised men are at significantly lower risk of acquiring ulcerative STIs (syphilis, chancroid and herpes) infection. The research has found that circumcision decreases HIV acquisition in men by 53% to 60%, herpes simplex virus type 2 acquisitions by 28% to 34%, and HPV prevalence by 32% to 35%. Among female partners of circumcised men, acquisition of bacterial vaginosis was reduced by 40%, and Trichomonas vaginalis infection was reduced by 48%.

The benefit of circumcision has not been shown against gonococcal or chlamydial infections in men. Similarly, women's risk for chlamydial and gonococcal infections has not seen changed due to male circumcision. (23,24,25) However, in light of the high prevalence of genital ulcer syndrome and HIV infection in the SADC region, it is recommended that male circumcision procedure should be offered routinely as a part of STI care. Service providers should explain the benefits of male circumcision to all sexually active uncircumcised male presenting to the health facility, whether as patient or partner.

2.4.10 Cervical cancer screening for women

Cervical cancer is one of the leading causes of cancer death among women in the developing world, including in the SADC region. The primary underlying cause is the infection with high-risk human papilloma virus types 16 and 18, a very common sexually transmitted virus. Health education messages provided to STI patients should therefore include messages on the benefits of regular screening for early detection of cervical cancer. All women accessing STI services should be offered cervical cancer screening according to national guidelines. These may include cytology of cervical smear (pap smear) or visual inspection using acetic acid/Lugol's Iodine or HPV DNA test kits, depending on the availability of the screening methods.

2.4.11 Patient follow-up and referral

Patient follow-up is vital to ensure cure, detect early signs of complications, exclude re-infection, ensure treatment compliance, reinforce health promotion and STI prevention strategies, and facilitate partner management. In some cases, patients may require specialised services for conditions that cannot be appropriately managed at the facility level, for example, STI complications, non-STI complications detected during history and examination, couple counselling, and referral for HIV positive patients to antiretroviral therapy (ART) care for further evaluation and management.

Table 2.3: Essential components of health promotion package

The essential components of health promotion package for all clients include the following "Six C's":
Counselling and education, including HIV testing
Condom promotion, provision and demonstration
Compliance with treatment
Contact treatment/partner management
Circumcision for eligible men and
Cervical cancer screening.


2.5 Management of STI-associated syndromes

This section discusses the management of the most common clinical syndromes caused by sexually transmitted agents. Flowcharts for the management of each syndrome are provided.
The most commonly encountered STI syndromes include:

- Urethral discharge syndrome (UDS);
- Genital ulcer syndrome (GUS);
- Vaginal discharge syndrome (VDS);
- Lower abdominal pain (LAP) in women;
- Inguinal bubo;
- Scrotal swelling syndrome (SSS);
- Neonatal conjunctivitis;
- Mixed STI syndromes.

2.5.1 Syndrome 1: Urethral discharge syndrome

Urethral discharge syndrome is the presence of mucopurulent discharge from the anterior urethra. It is often associated with a burning sensation when passing urine (dysuria). The common causes of urethral discharge and dysuria are Neisseria gonorrhoeae, Chlamydia trachomatis and Trichomonas vaginalis. Other causes include Mycoplasma genitalium, Herpes simplex, Ureaplasma urealyticum and (rarely) genitourinary TB. The most common pathogens in urethral discharge patients in the SADC region are N. gonorrhoeae, C. trachomatis and T. vaginalis. It has been noted that 7% of UDS cases in South Africa and 4.5% of UDS cases in Namibia are T. vaginalis-positive. (8). Untreated UDS may lead to complications, such as epididymitis (scrotal swelling) and urethral stricture.

Clinical features
The urethral discharge syndrome typically presents in a sexually active male patient. A recent history of unprotected sex can be elicited. The duration of onset of symptoms may vary from 2 days to 2-3 weeks following sexual exposure. The amount of discharge also varies from scanty to profuse enough to stain the underwear.

The diagnosis of UDS must not be based on history alone: the discharge must also be observed. If the discharge is not apparent on inspection, the urethra must be gently massaged from the ventral part of the penile shaft towards the meatus to milk out any discharge. All service providers should be able to perform male genital examination, including milking of the urethra.

However, this may be a culturally sensitive issue. Not all service providers may be comfortable performing such an examination. Alternatives, such as asking patient to perform milking himself, could be considered in such situations. In cases where a patient has passed urine less than two hours prior to examination, it is possible that urethral discharge may not be detected, even after milking the urethra.

Management
Once the diagnosis is established, gonococcal, chlamydial and trichomonal infections should be treated simultaneously. The first- and second-line drug regimens could be adjusted depending on the epidemiological profile, availability of drugs and other resources in each Member State. Ciprofloxacin resistance in N. gonorrhoeae is an emerging problem in the SADC region, as confirmed by recent antibiotic resistance surveys in several countries. (26)

However, not every Member State has anti-microbial resistance surveillance data and therefore cannot necessarily predict resistance problems with ciprofloxacin. It is recommended that the treatment regimen for N. gonorrhoeae should include Cefixime or alternatively Ceftriaxone/ Spectinomycin.

Recommended treatment regimens for gonococcal infection

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

Recommended treatment regimens for chlamydial infection

- First-line: Azithromycin, 1 g orally stat.
- Second-line: Doxycycline*, 100 mg orally BID for 7 days, OR Erythromycin, 500 mg orally QID for 7 days.

Recommended treatment regimens for trichomonal infection

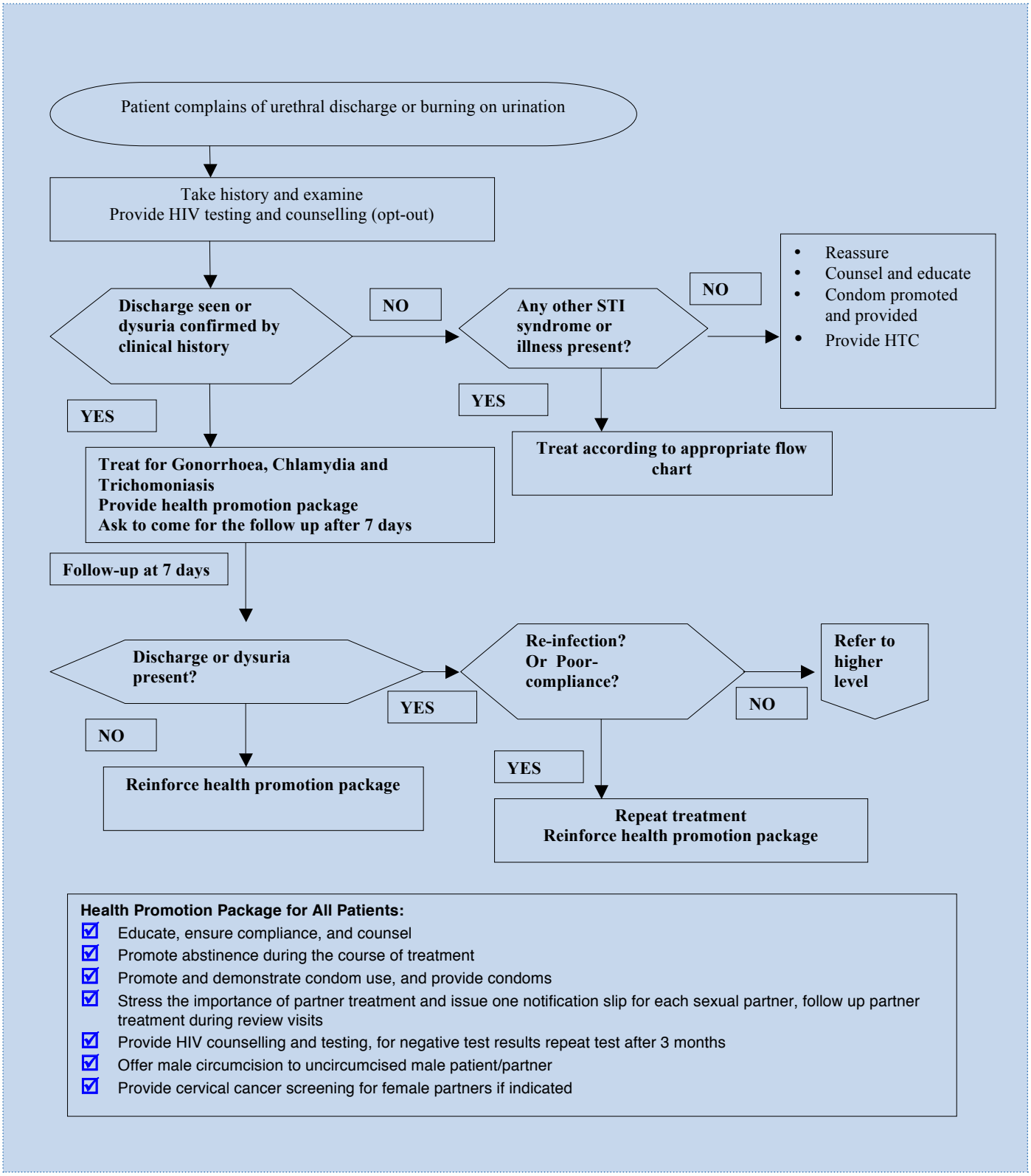
- Metronidazole, 2 g orally stat

Patients taking Metronidazole should be cautioned to avoid taking alcohol while on the drug or up within 24-48 hours after the last dose. The patient should be made aware that the combination of Metronidazole with alcohol can cause severe abdominal cramps, nausea, vomiting and headaches.

Recommended first-line regimen for urethral discharge syndrome

Cefixime, 400 mg orally stat or Ceftriaxone, 250 mg I.M stat (to treat gonococcal infection) PLUS
Azithromycin, 1 g orally stat (to treat chlamydial infections)PLUS
Metronidazole, 2 g orally stat (to treat trichomonal infections)

Flow chart 1: Urethral discharge syndrome



2.5.2 Syndrome 2: Scrotal swelling syndrome

Epididymo-orchitis is a serious complication of gonococcal and chlamydial urethritis. A painful swelling of the scrotum that usually develops over 1 to 2 days is the most common presenting symptom of epididymo-orchitis. If quick and effective therapy is not given, destruction and scarring of the testicular tissues may occur, causing sub-fertility.

Clinical features
The patient usually complains of unilateral pain and swelling of the scrotum. He often gives a history of urethral discharge.The symptom of scrotal swelling is commonly encountered in a number of acute or chronic non-STI clinical conditions. This includes trauma, torsion, tumours, tuberculosis (TB), hernia, hydrocele, mumps, and filariasis. However, these conditions should be distinguished from the epididymo-orchitis as a result of gonococcal and chlamydial infections.

- History suggestive of other causes of acute painful testicular swelling must be explored.
  Patients with testicular torsion complain of sudden onset of pain and swelling in one or both scrotal sac. The pain is often associated with abdominal pain and vomiting. Patients having testicular trauma usually report having been injured. Patients with strangulated inguinal hernia may state that they previously had a swelling that could be manually reduced. Testicular torsions, trauma, and strangulated inguinal hernias are emergency conditions and usually present as acute painful swelling of scrotum. These cases should be referred immediately for proper surgical evaluation and treatment.

- The physical examination of a patient with scrotal swelling must include the palpation of the inguinal area and scrotum to elicit tenderness and confirm the increase in size.
  On inspection, the scrotal sac appears distended and on palpation, both testis and the epididymis are swollen and tender. Other tests to demonstrate the presence of fluid, such as using a lighted torch against the testicle in a dark room could help to exclude non-STI causes (for example, hydrocoele). In a patient with testicular trauma, the scrotal sac will be tense, tender and swollen due to accumulation of blood (haematocele). Presence of swollen, tender scrotal sac with elevated or rotated testis indicates torsion of testis.

Management
The management of acute scrotal swelling syndrome due to epididymo-orchitis involves treatment for both gonococcal and chlamydial infections simultaneously. In order to reduce pain and discomfort, advise bed rest, scrotal support, and analgesics until local inflammation subsides.

Recommended treatment regimens for complicated gonococcal infection

- First-line: Ceftriaxone, 250 mg intramuscular (IM) stat.

- Second-line: Spectinomycin, 2 g IM stat, OR Gentamicin, 240 mg IM stat.

Recommended treatment regimens for complicated chlamydial infection

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

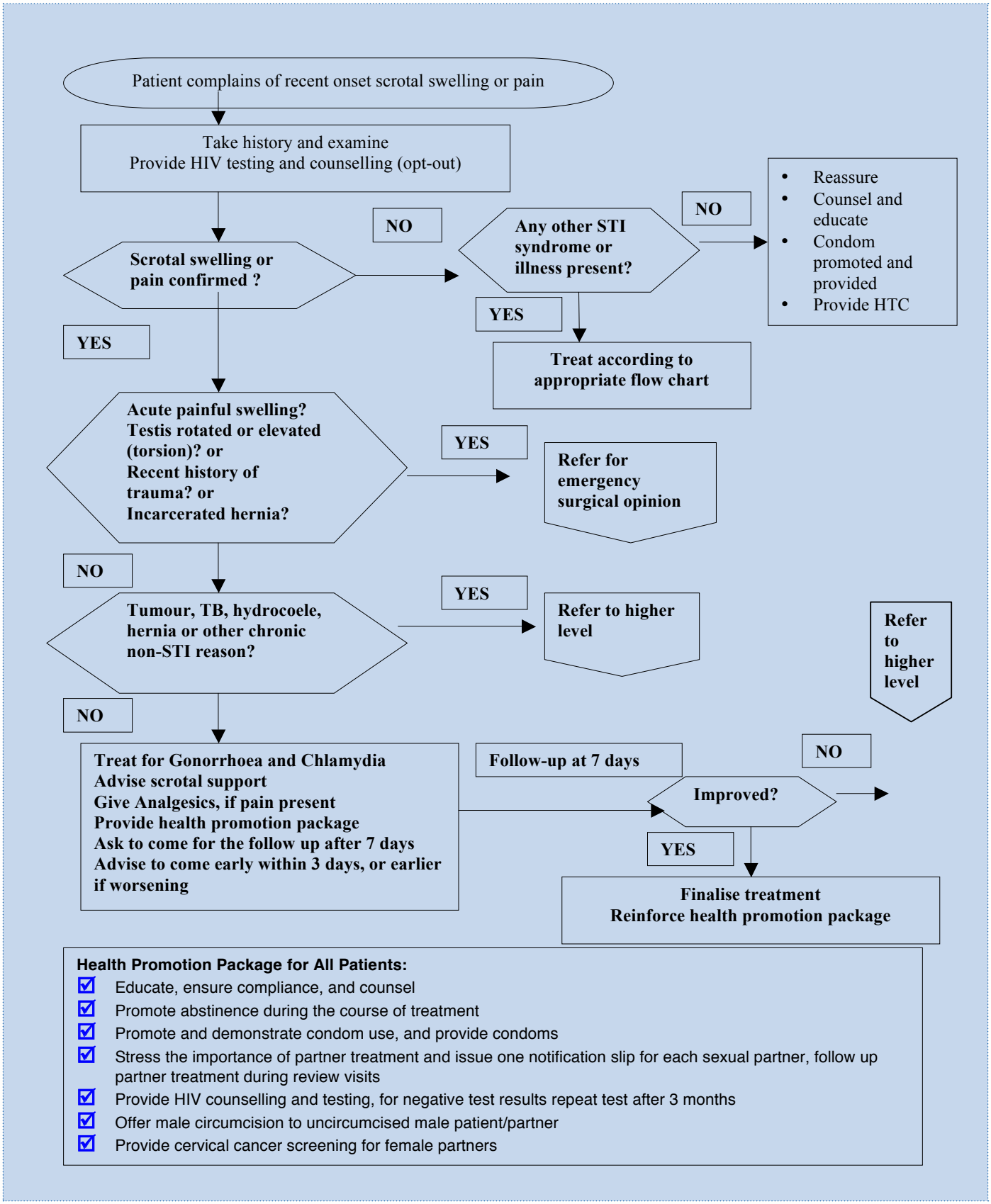
- Second-line: Doxycycline*, 100 mg orally BID for 14 days, OR Erythromycin, 500 mg orally QID for 14 days.
  * In individuals allergic/intolerant to Doxycycline: Give Erythromycin, 500 mg, orally QID for 14 days.

Recommended first-line regimen for scrotal swelling syndrome

Ceftriaxone, 250 mg I.M stat PLUS
Azithromycin, 1 g orally per week for 2 weeks PLUS

Supportive therapy: To reduce pain advice bed rest, scrotal elevation with a scrotal support (T-bandage) and analgesics

Flow chart 2: Scrotal swelling syndrome



2.5.3 Syndrome 3: Vaginal discharge syndrome

Vaginal discharge is a very common complaint among female patients. It is common for women to experience some types of normal discharge (physiological) which occur during mid-menstruation cycle, due to sexual activity or during pregnancy and lactation. This physiological vaginal discharge is different from the abnormal vaginal discharge syndrome (VDS). A spontaneous complaint of abnormal vaginal discharge (in terms of increased quantity, and/or unusual colour or mal-odour) by a sexually active woman is most likely a symptom of vaginal infection (vaginitis) or cervical infection (cervicitis). Cervicitis is caused by N. gonorrhoeae and C. trachomatis, while T. vaginalis, Candida albicans, and bacterial vaginosis cause predominantly vaginal pathology.

Clinical features
The abnormal vaginal discharge may be described as the experience of a wet genital area more often than usual, at times requiring her to change underwear or use an extra pad. Alternatively, the major problem could be the smell and colour of the discharge as seen on the pad or underwear. A burning sensation during micturition is also a common complaint associated with vaginal discharge. In some instances, a woman may present with symptoms of white vaginal discharge in her mid-cycle, without any signs of infection.

The service provider should reassure such a patient about physiological vaginal discharge and help her understand the difference between physiological and pathological discharges. The possibility of pregnancy should also be ascertained in patients complaining of vaginal discharge, by enquiring about a history of amenorrhea and/or performing urine beta Human Chorionic Gonadotrophin – β-HCG test – since there is a risk of mother-to-child transmission in certain conditions (e.g. N. gonorrhoeae) and because some drugs are contra-indicated in pregnancy (for example, Doxycycline). In women with VDS, it is important to try to differentiate cervicitis from VDS due to vaginal pathology alone. This will minimise overtreatment and use of unnecessary antibiotics. The clinical differentiation between cervicitis and vaginitis should be made based on history-taking, risk assessment and a thorough physical examination and genital examination including speculum and bi-manual examination.

The risk assessment can be done by asking following questions:

- Age under 25 years?
- Has she been sexually active in the past 3 months?
- Does she have a symptomatic partner?
- Has she had a new partner in past 3 months?
- Has she had more than one partner?
- Has the spouse returned after a long stay away from home?
- Is there bleeding during or after sex?
- Does she experience pain on deep penetration during sex?
- Does she experience inter-menstrual bleeding?

If the answer is “Yes” to at least two of those questions, the risk assessment is considered to be positive. If the partner has urethral discharge or genital ulcerations, it should be considered as an independent risk factor.

- Patients with positive risk assessment should be considered at high risk of cervicitis and treated accordingly.

Service providers should always use a speculum when examining patients with the complaints of vaginal discharge. Presence of endo-cervical discharge or inflamed (red) cervix indicates cervicitis. The service provider should also realise that the purpose of internal examination is not only to confirm the origin of the discharge, but also to exclude the presence of other lesions, such as growths and ulcers on the vaginal wall or cervix.

This is particularly important since the prevalence of cervical cancer is high in the SADC region. In patients where the risk assessment is negative and endo-cervical inflammation or discharge is not seen on examination, a diagnosis of vaginitis syndrome due to common conditions such as candidiasis and/or bacterial vaginosis should be considered. The majority of these VDS patients have non-sexually transmitted candidiasis or bacterial vaginosis.

Management
The choice of treatment regimen in the management of VDS is based on a thorough assessment of the patient's history – including pregnancy status, results of risk assessment, and examination findings.

- Where it is not possible to clinically differentiate between cervicitis and vaginitis (for example, due to non-availability of speculum) and/or the risk assessment is positive, patients should be treated for both cervicitis and vaginitis.

It is important to examine the partner(s) of women with vaginal discharge, even if the risk assessment is negative, since this provides an excellent opportunity to talk to partner(s) about HIV and STI prevention, and to provide HIV counselling and testing. Although treatment of sexual partner(s) is not recommended if the woman is diagnosed with candidiasis, it may be considered if the woman has recurrent infections.

Recommended treatment regimen for vaginal discharge syndrome in non-pregnant women

Vaginal discharge syndrome due to vaginitis and when risk assessment is negative

The treatment regimen should cover organisms causing bacterial vaginosis and candidal infections:

- Metronidazole** 2 g orally, single dose (to treat bacterial vaginosis) PLUS
- Clotrimazole 500 mg vaginal pessary once only (to treat candidiasis) PLUS
- Clotrimazole cream applied locally 12 hourly for 7 days (for vulval itching or excoriation)

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

Drugs to treat gonococcal infection are:

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

Second-line: Spectinomycin 2g IM stat, OR Gentamicin 240mg IM stat.

Drugs to treat chlamydial infection are:

- First-line: Azithromycin, 1g orally stat.
- Second-line: Doxycycline* 100mg BID for 7 days, OR Erythromycin 500 mg QID for 7 days.

Drug to treat trichomonal infection is:

- Metronidazole**, 2g orally stat.

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

- ADD: Clotrimazole pessary 500 mg intra-vaginally stat PLUS Clotrimazole cream applied BID for 7 days (to treat for candidiasis)

Recommended treatment regimen for vaginal discharge syndrome in pregnant woman

- Cefixime, 400mg orally stat, OR Ceftriaxone, 250 mg IM stat (to treat gonococcal infection) PLUS
- Erythromycin 500mg orally QID for 7 days, OR Azithromycin 1 g orally stat (to treat chlamydial infections) PLUS
- Metronidazole**, 2g orally single dose (to treat trichomonal infection and bacterial vaginosis).

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

- ADD: Clotrimazole pessary 500mg intra-vaginally stat PLUS Clotrimazole cream applied 12 hourly for 7 days (to treat for candidiasis).

* In individuals allergic /intolerant to Doxycycline: Give Erythromycin base/stearate 500 mg QID for 7 days
** Patients taking Metronidazole should be cautioned to avoid taking alcohol while on these drugs and up to 24-48 hours after the last dose. The patient should be made aware that the combination of Metronidazole with alcohol can cause severe abdominal cramps, nausea, vomiting and headaches.

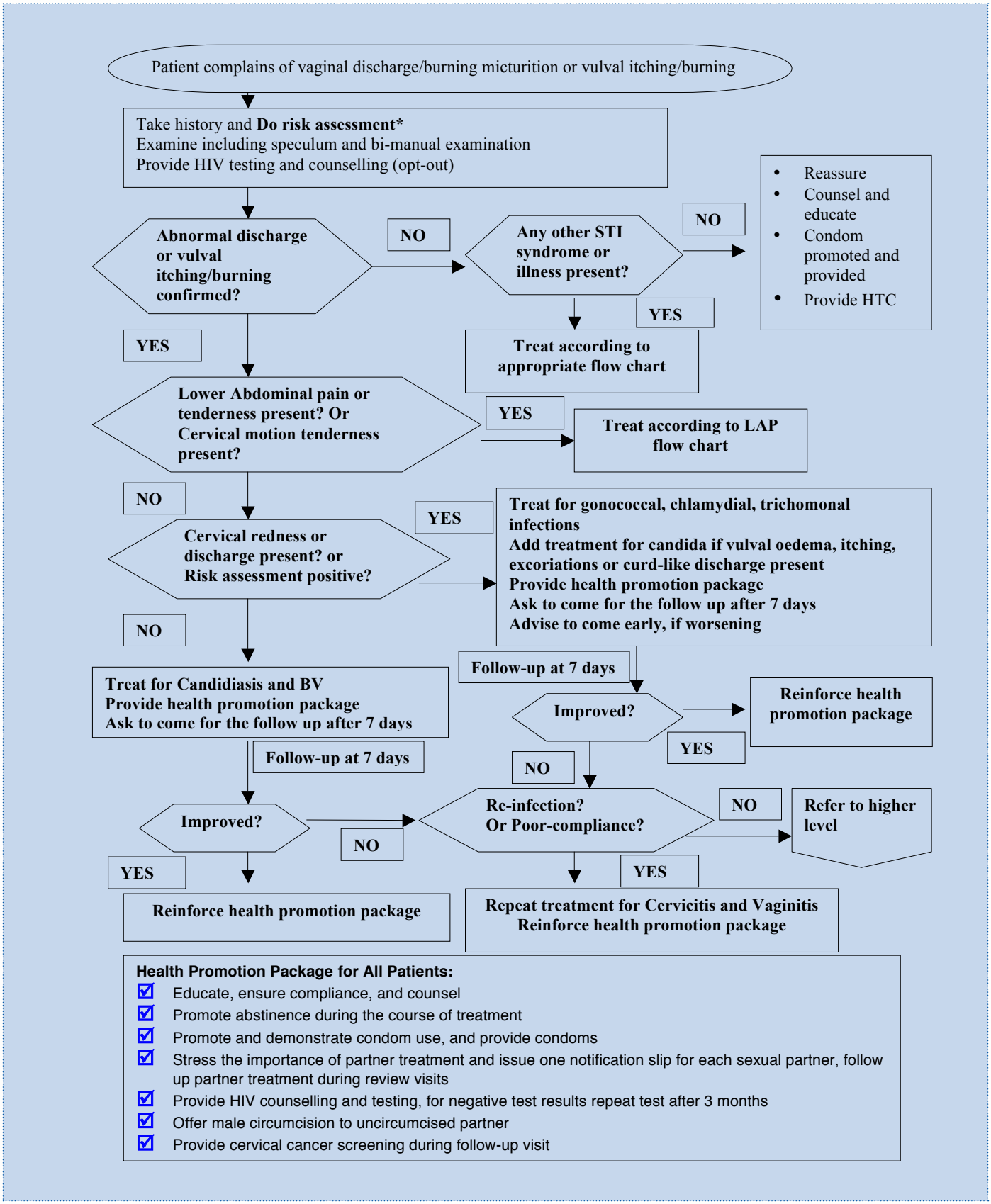
Recommended first-line regimen for vaginal discharge syndrome:

- Cefixime, 400mg orally stat or Ceftriaxone, 250 mg IM stat PLUS
- Azithromycin, 1g orally stat PLUS
- Metronidazole, 2g orally stat

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

Add: Clotrimazole, 500mg vaginal pessary stat PLUS Clotrimazole cream intravaginal application BID for 7 days

Flow chart 3: Vaginal discharge syndrome



* If risk assessment is positive: Treat for gonococcal, chlamydial, trichomonal infections

2.5.4 Syndrome 4: Lower abdominal pain in women

Lower abdominal pain in a sexually active woman could be due to pelvic inflammatory disease (PID) caused by Sexually Transmitted Infections. PID is defined as an infection of the female genital tract above the cervix and may include endometritis, salpingitis, tubo-ovarian abscess and peritonitis. PID occurs as a result of ascending infection of cervix by N. gonorrhoeae, C. trachomatis and anaerobic bacteria. Infertility due to tubal occlusion, ectopic pregnancy or even death are among the serious complications of PID.

Clinical features
Clinically, lower abdominal pain is a complex syndrome to identify. Several other important non-STI causes may produce similar symptoms and signs.

- In all suspected lower abdominal pain patients, speculum and bi-manual examination must be conducted.
- A complete set of signs and symptoms of lower abdominal pain would include a complaint of lower abdominal or back pain, lower abdominal tenderness with or without guarding on abdominal examination, and cervical motion tenderness on bimanual examination.
- The physical examination should assess the general condition of the patient. Fever may be present in severe cases. In all cases, pregnancy-related conditions, as well as an acute abdomen, should be excluded. High temperature, high pulse rate and low blood pressure, for example, should alert to the possibility of severe pelvic infection or bleeding. These patients should be referred as a matter of urgency.
- On palpation, if signs of peritonitis such as lower abdomen guarding and rebound tenderness or if abdominal masses are present, the patient must be referred to the higher level.

Management
Because of the multi-causality of PID, and the difficulties in establishing aetiology for individual infection/s, it is recommended that lower abdominal pain should be treated as a syndrome, with concurrent treatments for gonococcal, non-gonococcal (C. trachomatis) and anaerobic bacterial infections.

Recommended treatment regimen in non-pregnant women

- Ceftriaxone, 250mg I.M stat (to treat gonococcal infection) PLUS
- Azithromycin, 1g orally per week for 2 weeks, OR Doxycycline*, 100 mg orally BID for 14 days (to treat chlamydial infection) PLUS
- Metronidazole**, 400mg orally BID for 7 to 14 days (to treat anaerobic bacteria).

  * In individuals allergic /intolerant to Doxycycline: Give Erythromycin base/stearate 500 mg orally QID for 14 days
  ** Patients taking Metronidazole should be cautioned against taking alcohol while on these drugs and up to 24-48 hours after the last dose. The patient should be made aware that the combination of Metronidazole with alcohol can cause severe abdominal cramps, nausea, vomiting and headaches.

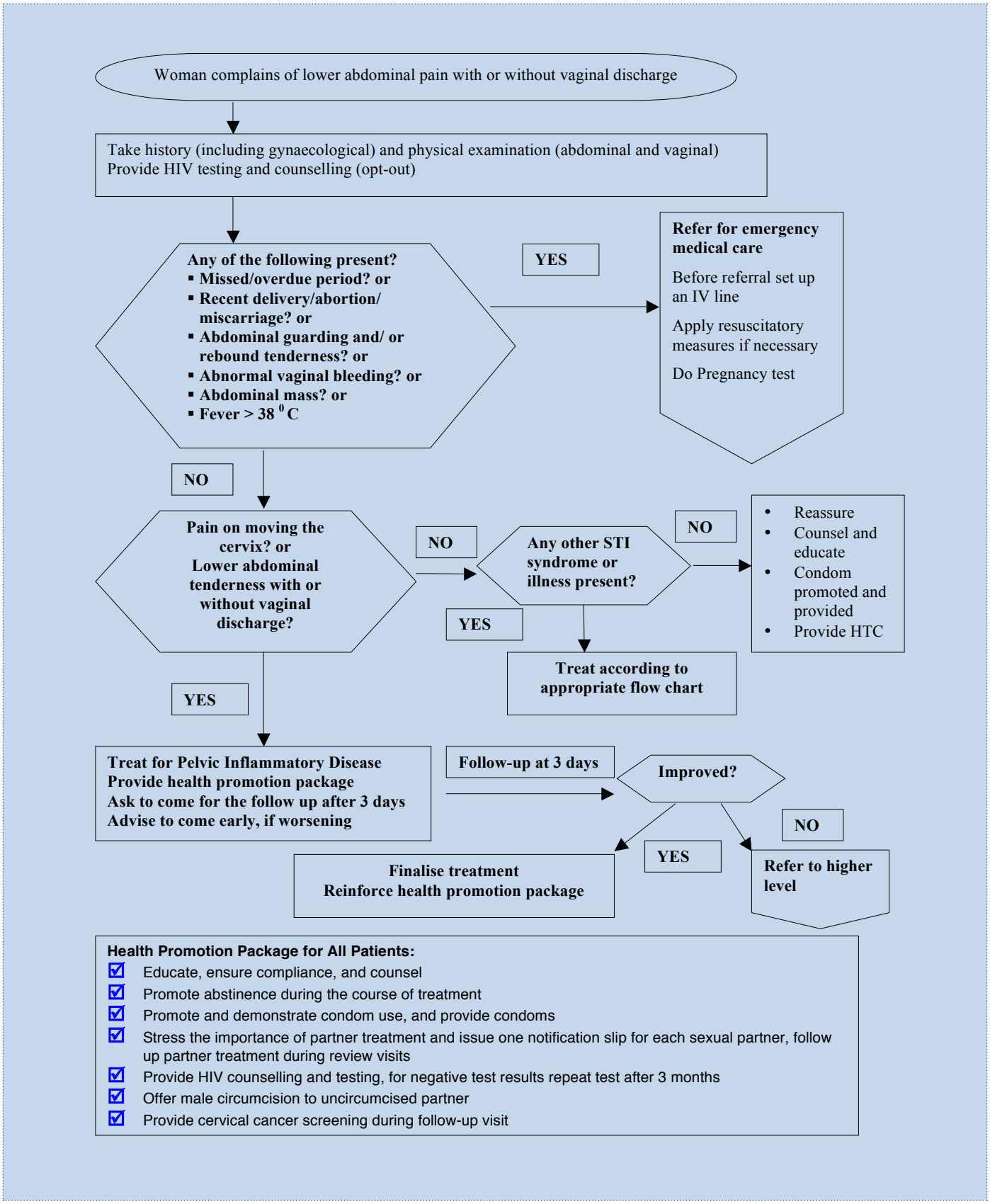
Caution: PID can be a serious condition. The patient must be referred to the higher level if she does not respond to treatment within 3 days and even earlier in case there is worsening of her condition.

Because of the high risk for maternal morbidity, foetal wastage, and preterm delivery, pregnant women who have suspected PID should be referred to higher level for hospitalisation.


Recommended first-line regimen for lower abdominal pain in women

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

Flow chart 4: Lower abdominal pain in women




2.5.5 Syndrome 5: Genital ulcer syndrome

Ulceration of the genitals is among the most common STI syndromes in men and women. The most common STIs presenting with genital ulcer(s) are genital herpes (caused by herpes simplex virus type 2), syphilis (caused by Treponema pallidum), and chancroid (caused by Haemophilus ducreyi). Individual ulcers may be caused by more than one pathogen (mixed infections). Other STIs causing genital ulcers include donovanosis (granuloma inguinale) and lymphogranuloma venereum (LGV).

Donovanosis is caused by Klebsiella granulomatis (previously known as Calymmatobacterium granulomatis) and LGV is caused by Chlamydia trachomatis types L1, L2 and L3. Aetiological patterns of genital ulcer syndrome (GUS) in the SADC region have changed from predominantly bacterial causes (such as chancroid, syphilis) to viral causes (such as herpes simplex virus). (5,6,27,28) Herpes simplex virus reportedly accounts for 50% or more of GUS cases in recent aetiological studies in Africa.

The treatment of GUS is currently a priority strategy for HIV prevention. GUS has been shown to facilitate HIV transmission, and positive HIV status is associated with protracted GUS (slow healing).

Clinical features
Patients with GUS may present with single or multiple ulcers, with or without pain. Lymph nodes in the groin may also be enlarged and painful. The predominant signs and symptoms in GUS depend on the causative agent. Herpetic lesions have a classical onset with a prodrome of itch, followed by clustered vesicles that burst open to form shallow ulcers.

The lesions are also recurrent. Persistent herpetic infection (longer than a month) is suggestive of HIV and AIDS. Donovanosis presents clinically as painless, progressive, ulcerative lesions without regional lymphadenopathy.

The lesions are highly vascular and can easily bleed on contact. The ulcer in LGV is transient in nature and may go unnoticed by the patient. These patients usually present to the facility as inguinal bubo syndrome due to enlargement of inguinal lymph nodes later in the disease process.

- The physical examination in men should include an inspection of genitalia including scrotum, inner thighs, groins and anus. In uncircumcised males, the foreskin must be fully retracted because ulcers may be hidden.
- It should be borne in mind that other STIs may also be in occurrence. Urethral discharge or warts may be present.
- The examination of the female patient should also adopt the principle of exposing the ulcers for inspection. All female patients should be properly examined through speculum examination to rule out ulcers inside vagina and on cervix or to look for signs of other STIs. However, sometimes it may not be possible to conduct speculum examination due to the presence of painful ulcers.

Management
Patients with diagnosed GUS must be offered a treatment regimen that includes drugs such as:

- Benzathine Penicillin for syphilis;
- Erythromycin/Azithromycin/Ceftriaxone/ Ciprofloxacin for chancroid; and
- Acyclovir for genital herpes.

Acyclovir inclusion in syndromic management of GUS is recommended for the SADC region, since the HSV2 infection has been frequently implicated as an aetiological agent in GUS cases in SADC Member States.

Recommended treatment regimens

If ulcer(s) alone or ulcer(s) along with herpetic vesicles are visible*
Treat for syphilis, chancroid and herpes. Recommended regimen should include:

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

  * If ulcer(s) are present with herpetic vesicles and the patient has been in a monogamous relationship for the past three months, then only treat for herpes with Acyclovir, 400 mg orally TDS for 7 days.

If only classical herpetic vesicles are seen and no ulcers present a presumptive diagnosis of herpes may be made and therapy for genital herpes should be given. There is no known cure for herpes simplex virus infections, but the course of symptoms can be modified if oral antiviral therapy is started as soon as possible, preferably within 72 hours following the onset of symptoms.

Recommended regimen for genital herpes:

- First episode: Acyclovir, 400mg orally TDS for 7 days;
- Recurrent episodes: Acyclovir, 400mg orally TDS for 5 days

The chronic and recurrent nature of the illness should be explained to the patient, who should be advised to avoid sexual contact until the lesions are completely healed. Further opportunities for prevention education should focus on reducing the risk of transmission during both asymptomatic and symptomatic period by using condom at all times. If due, cervical cancer screening should be routinely offered in females with herpes genital infection if it is possible to pass a speculum. Daily suppressive anti-viral therapy may be employed in patients with frequent recurrences of genital herpes (six or more recurrences per year). For suppressive therapy:

- Give Acyclovir, 400 mg orally BID continuously for at least one year; recurrence rate should than be re-assessed after the stoppage of Acyclovir.

In countries where lymphogranuloma venereum is prevalent Treat for syphilis, chancroid, herpes and LGV

Recommended regimen should include:

- Benzathine Penicillin*, 2.4 million units I.M stat Give one injection in either buttock, after testing for sensitivity for penicillin (to treat syphilis) PLUS
- Azithromycin, 1g orally weekly for 2 to 3 weeks; OR Doxycycline, 100mg orally BID for 7 to 14 days (plus either Ciprofloxacin**, 500mg orally BID for 3 days or Ceftriaxone**, 250 mg I.M. stat); OR Erythromycin, 500 mg orally QID for 7 to 14 days (to treat chancroid and LGV) PLUS
- Acyclovir, 400 mg orally TDS for 7 days (to treat genital herpes).
  * Before giving penicillin injection, it is important to rule out penicillin hypersensitivity by careful history.
  ** Most chancroid cases are resistant to doxycycline, so ciprofloxacin or ceftriaxone should be given to ensure adequate antibiotic cover for chancroid.

In individuals allergic/intolerant to penicillin:

- Give Doxycycline 100mg orally BID for 14 days to treat primary syphilis.

In pregnant women allergic /intolerant to penicillin and doxycycline:

- Give Erythromycin base/ stearate 500mg orally QID for 14 days;
- Ask the patient to bring the new-born baby for examination within 7 days of birth.

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

Recommended regimens for Donovanosis

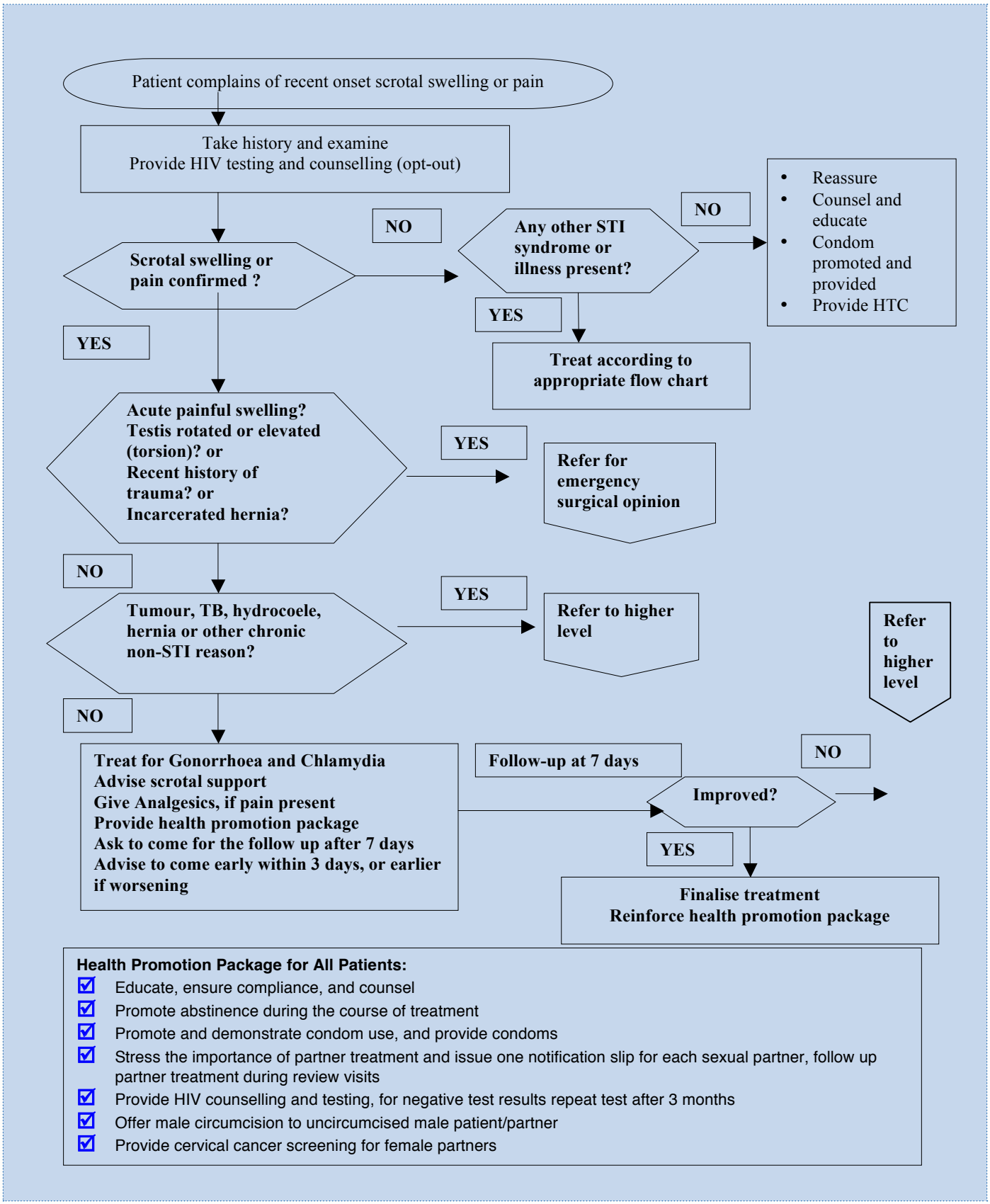
- Doxycycline**, 100mg orally BID for 14 days OR
- Erythromycin, 500mg orally QID for 14 days

Lesions should be kept clean. Some patients might require longer treatment than the recommended 14 days. Treatment should be continued until all lesions have completely healed.
** In pregnant women: Give Erythromycin base/ stearate 500 mg orally QID for 14 days.

Recommended first-line regimen for genital ulcer syndrome

Benzathine Penicillin, 2.4 million units I.M stat as a single injection split between buttocks PLUS
Azithromycin, 1g, orally stat PLUS
Acyclovir, 400mg orally TDS for 7 days
** In pregnant women: Give Erythromycin base/ stearate 500 mg orally QID for 14 days.

Flow chart 5: Genital ulcer syndrome



2.5.6 Syndrome 6: Inguinal bubo syndrome

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

Clinical features
Inguinal buboes can occur as unilateral or bilateral, single or multiple painful swellings. Other STIs (such as gonorrhoea, syphilis, herpes and HIV) may cause inguinal lymphadenopathy, which may typically be painful (herpes, gonorrhoea) or non-painful (syphilis, HIV). Non-STIs, such as acute infections of the skin on the pubic area, genitals, buttocks, anus, thighs, legs, feet and toes or tuberculosis infection may also cause inguinal lymphadenopathy.

- If during examination, genital ulcer(s) are seen along with inguinal buboes, the clinical management should follow the genital ulcer syndrome (GUS) protocol.

Management
- The management of inguinal buboes is to treat for both chancroid and LGV infections simultaneously;
- Advise analgesics and hot medicinal compress for painful buboes;
- If buboes become fluctuant, they should be aspirated through healthy skin. Aspiration may be needed in some cases, even after initiation of appropriate therapy. In this case, aspiration can be done at every 3 days.

Recommended treatment regimens

Recommended treatment regimens for chancroid buboes

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

Recommended treatment regimens for LGV buboes

- Doxycycline*, 100mg orally BID for 14 days* OR
- Azithromycin, 1g orally stat and then 1 g orally per week for 2 weeks OR
- Erythromycin, 500mg orally QID for 14 days.

  * In patients intolerant to Doxycycline, or in pregnant and lactating women: Give 3 doses of Azithromycin, 1 g orally per week or Erythromycin base/stearate, 500mg orally QID for 14 days

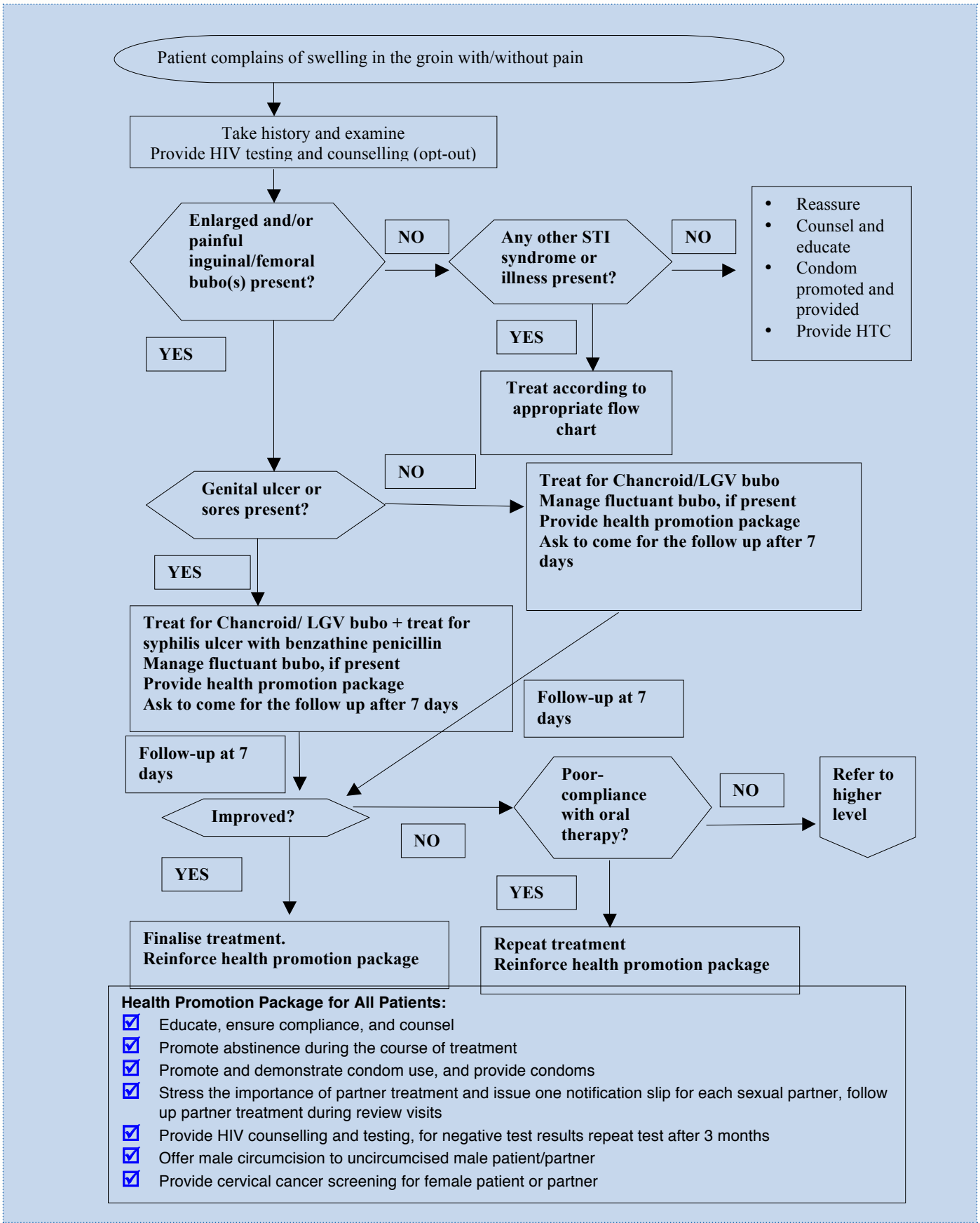
Management of fluctuant buboes
Fluctuant buboes should be aspirated (with a wide bore needle attached to a syringe) through the surrounding healthy skin, using sterile precautions. Incision and drainage or excision of bubo delays healing and should never be attempted.

Recommended first-line regimen for inguinal bubo syndrome

Azithromycin, 1g orally stat and then 1g orally per week for 2 weeks (to treat both chancroid and LGV) OR

Doxycycline, 100mg orally BID for 14 days (to treat LGV) Plus Ciprofloxacin, 500 mg orally BID for 3 days OR
Ceftriaxone, 250mg IM stat (to treat chancroid)

Flow chart 6: Inguinal bubo syndrome




2.5.7 Syndrome 7: Neonatal conjunctivitis syndrome

Neonatal conjunctivitis is the condition where the baby develops purulent conjunctivitis in one or both eyes within four weeks of birth. It is a medical emergency and unless treatment is initiated within 24 hours there could be permanent damage to the eyes resulting in blindness.

The discharge from the eyes may be caused by N. gonorrhoeae, C. trachomatis or, less frequently, by herpes viruses (HSV-1 or HSV-2) or other bacteria. STI-related infections are passed from the mother to the neonate during passage through the birth canal during the delivery.

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

Management
Prevention measures:

- Screen all pregnant women for Sexually Transmitted Infections during pregnancy and provide appropriate treatment;
- Routine application of tetracycline eye ointment (1%) to all new-borns at the time of delivery;
- Provide health promotion package to parents.

All new-born babies with conjunctivitis should be treated for both N. gonorrhoeae and C. trachomatis because of the possibility of mixed infections. Clean the eyes with distilled water or saline. Persons caring for infected infants should always wash their hands carefully. Parents (mother and father or partner) should be examined and treated.

Recommended treatment regimens

For the new-born

- Ceftriaxone, 50mg/kg body weight (max. 125mg) IM single dose, up to maximum of 125mg (to treat gonococcal infection) PLUS
- Erythromycin syrup, 50mg/kg body weight orally daily in 4 divided doses for 14 days (to treat chlamydial infection).

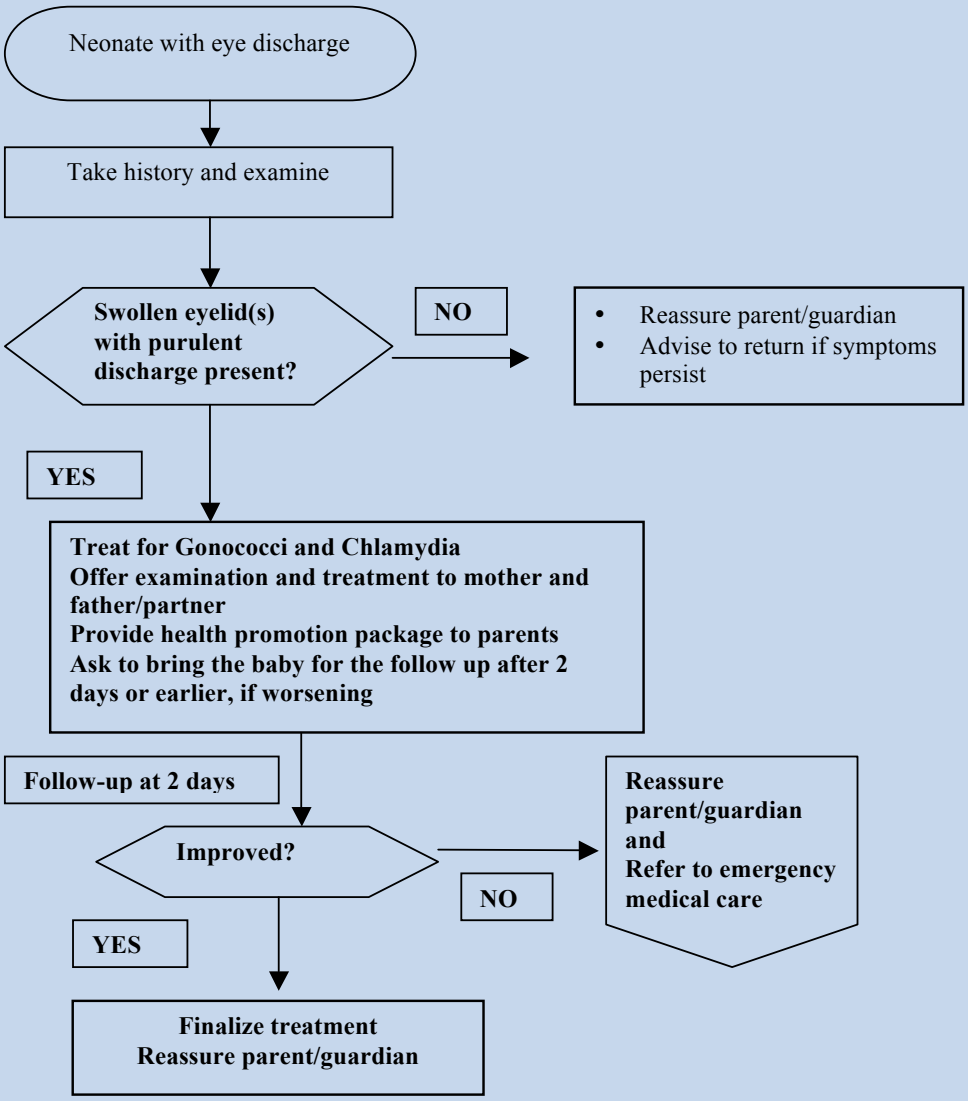
For mother (breast-feeding)

- Cefixime, 400mg orally stat OR Ceftriaxone, 250mg IM stat (to treat gonococcal infection) PLUS
- Azithromycin, 1g orally stat OR Erythromycin, 500mg orally QID for 7 days (to treat chlamydial infection).

For father or non-breast-feeding mother

- Cefixime, 400mg orally stat OR Ceftriaxone, 250mg IM stat (to treat gonococcal infection) PLUS
- Azithromycin, 1g orally stat OR Doxycycline, 100mg orally BID for 7 days (to treat chlamydial infection).

Flow chart 7: Neonatal conjunctivitis syndrome



Health Promotion Package for Parents of Baby with Confirmed Neonatal Conjunctivitis:

- ☑ Educate, ensure compliance, and counsel
- ☑ Promote abstinence during the course of treatment
- ☑ Promote and demonstrate condom use, and provide condoms
- ☑ Stress the importance of partner treatment and issue one notification slip for each sexual partner, follow up partner treatment during review visits
- ☑ Provide HIV counselling and testing, for negative test results repeat test after 3 months
- ☑ Offer male circumcision to uncircumcised parent
- ☑ Provide cervical cancer screening for mother


2.5.8 Mixed STI syndromes

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

* In Penicillin-allergic patients: Give Doxycycline (non-pregnant women/men) or Erythromycin (pregnant women) for 14 days instead of 7 days

2.6 Management of other STIs and related clinical conditions

This section discusses the management of the most common STIs that are not presented as syndromes, as well as other STI-related clinical conditions. Details for the management of each infection or condition are provided.
The following is a list of important other STIs not presenting as syndromes and STI-related conditions:

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

2.6.1 Management of reactive syphilis test cases

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

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

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

The advantage of these tests is that the results can be quantified and used for monitoring the treatment over time. Usually, these tests are positive 4-5 weeks after the occurrence of infection. A titre of 1:8 and above indicates probable active disease or recent infection (treated or untreated), although the RPR/VDRL can be negative in up to 30% of primary GUS cases. If after three months post-treatment, the titre falls to a low level then cure can be assumed. However, if the titre rises four-fold after falling to a low level post-treatment, then relapse, complication or re-infection should be suspected. A low proportion of patients may remain positive even after successful treatment. These non-treponemal tests can also give false positive results due to a number of conditions not related to syphilis

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

Management

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

Recommended treatment regimens for reactive syphilis test cases (latent syphilis less than 2 years duration)

- Benzathine Penicillin, 2.4 million IU IM stat as a single injection.

Alternative regimens for penicillin hyper-sensitive patients:

- Doxycycline, 100mg orally BID for 14 days (non-pregnant women/men).
- Erythromycin, 500mg orally QDS for 14 days (pregnant women).

Recommended treatment regimens for reactive syphilis test cases (latent syphilis more than 2 years duration or unknown duration)

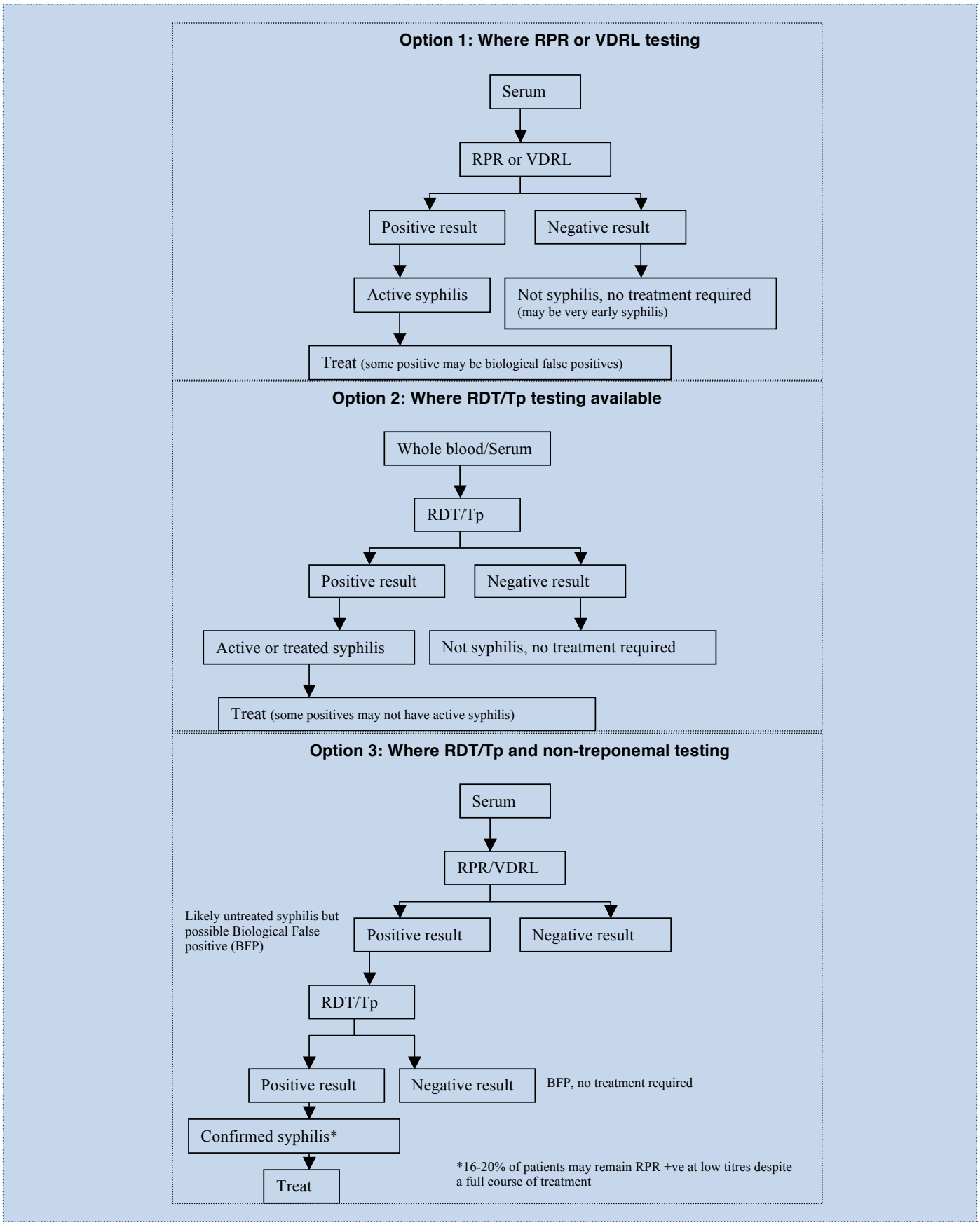
- Benzathine Penicillin, 2.4 million IU IM weekly, after testing for sensitivity, for 3 weeks.

Alternative regimens for penicillin hyper- sensitive patients:

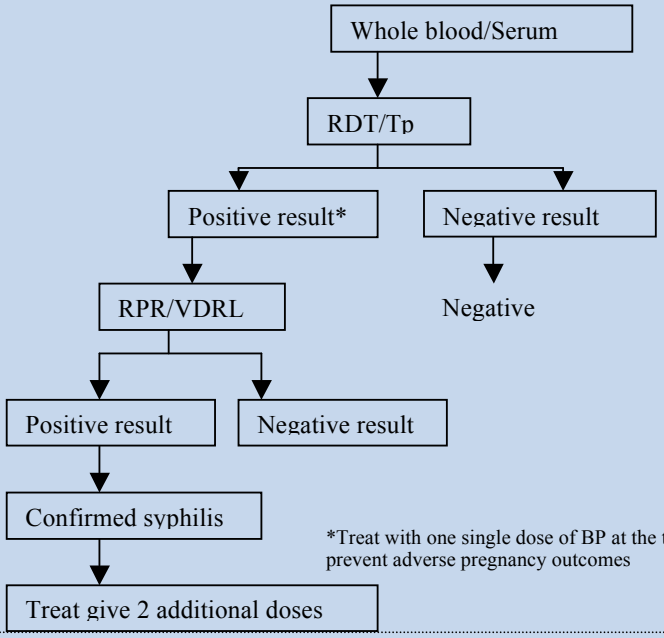
- Doxycycline, 100mg orally BID for 30 days (non-pregnant women/men).
- Erythromycin, 500mg orally QDS for 30 days (pregnant women).

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

Flow chart 8: Syphilis testing and treatment algorithm

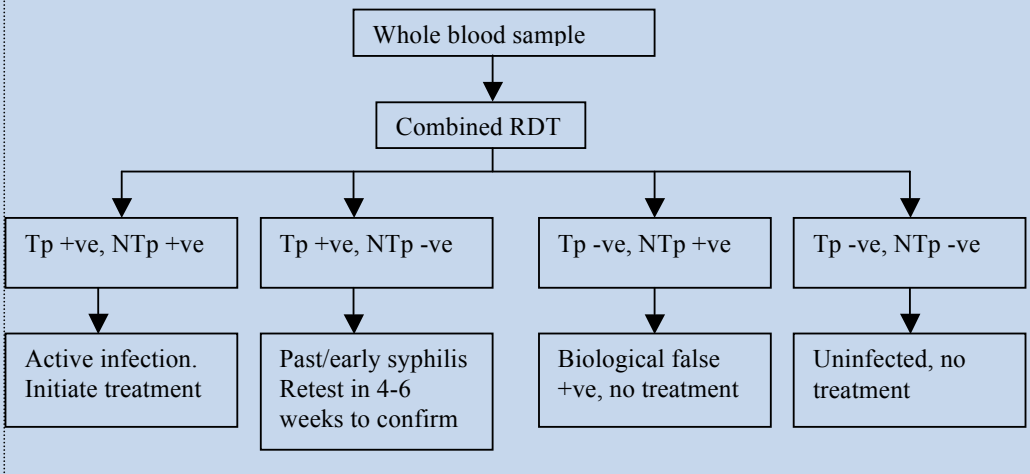



Option 4: Where RDT/Tp and non-treponemal testing



*Treat with one single dose of BP at the time of testing to prevent adverse pregnancy outcomes

Option 5: Where RDT/Tp and non-treponemal testing



Tp = Treponemal result; NTp = Non-treponemal result

2.6.2 STI screening for pregnant women

STIs occurring during pregnancy can have adverse outcomes for the growing baby, as well as increase morbidity in the mother. Adverse pregnancy outcomes such as miscarriage, stillbirth or congenital syphilis in the new-born, and progression of the disease in the mother are anticipated complications if the mother is left untreated for syphilis. Neonatal herpes can develop in a baby born to a mother who develops primary herpes genitals shortly before vaginal delivery. There is increasing evidence that trichomoniasis and bacterial vaginosis in pregnant women are associated with increased incidences of premature rupture of the membranes, pre-term delivery and low birth weight.

STI screening protocol

- All pregnant women should, at their first antenatal visit, undergo thorough history taking and examination to rule out the presence of any STIs.
- They should also be educated about the need for syphilis screening (RPR/RDT-Tp) tests, and should be offered pre-test counselling for HIV.
- In populations with a high incidence of congenital syphilis, screening tests for syphilis should be repeated in the third trimester and at the time of delivery.
- Pregnant women require close monitoring to detect possible re-infection after treatment has been given. It is also important to treat their sexual partner(s).

Management

In pregnant women with positive syphilis test results, overtreatment is preferable to missed cases that could result in serious complications of congenital syphilis.

Recommended treatment regimens for reactive syphilis test in a pregnant women

- Pregnant women who are not hypersensitive to penicillin should be treated with Benzathine Penicillin, 2.4 million units IM weekly, after testing for sensitivity, for 3 weeks.

Penicillin hypersensitive pregnant women should be treated with:

- Ceftriaxone, 1g IM OD for 8 to 10 days OR
- Erythromycin stearate 500 mg orally QID for 30 days. Erythromycin estolate is contraindicated in pregnancy. Erythromycin should not be taken on empty stomach.

The serological test should be repeated in treated pregnant patients at three (3)-monthly intervals, until delivery. After delivery, the follow-up of the mother is the same as for non-pregnant patients.

- It is recommended that all infants born to RPR/RDT-Tp/VDRL-positive mothers should be treated with a single IM dose of Benzathine Penicillin, 50 000IU/kg, whether or not the mothers were treated during pregnancy (with or without penicillin).
- Hospitalization is recommended for all symptomatic babies (congenital syphilis) born to mothers who were RPR/RDT-Tp/VDRL-positive.

Recommended treatment regimens for Sexually Transmitted Infections syndrome or conditions in pregnancy

The recommended treatment for vaginal discharge syndrome in pregnancy is:

- Cefixime, 400mg orally stat OR
- Ceftriaxone, 250mg IM stat + Erythromycin 500mg orally QID for 7days OR
- Azithromycin 1g orally stat + Metronidazole, 2g orally stat.

Metronidazole administration in pregnancy (29): Multiple studies and meta-analyses have not demonstrated an association between Metronidazole use during pregnancy and teratogenic or mutagenic effects in new-borns. Women may be treated with 2 g of Metronidazole in a single dose at any stage of pregnancy.

However, in symptomatic women intolerant to oral Metronidazole, give Metronidazole 0.75%, one full applicator (5 g) intravaginally, once a day for 5 days. Lactating women should be treated with a single oral dose of 2 g of Metronidazole.

Lower abdominal pain due to STIs can develop in pregnant women, although rare. Because of the high risk for maternal morbidity, foetal wastage, and preterm delivery; pregnant women who have suspected pelvic inflammatory disease or pregnant women with suspected lower abdominal pain syndrome should be referred to a higher level for further management.

The recommended treatment for genital ulcer syndrome in pregnancy is:

- Treat with Benzathine Penicillin*, 2.4 MU IM stat + Erythromycin stearate, 500mg orally QID for 7 days + Acyclovir, 400mg orally TDS for 7 days.

  * In pregnant women allergic /intolerant to penicillin: Give Erythromycin base/ stearate 500mg orally QID for 14 days. Ask patient to bring the new-born baby for examination within 7 days of birth.

The recommended treatment for genital herpes in pregnancy is:

- The first clinical episode of genital herpes should be treated with Acyclovir 400mg orally TDS for 7 days;
- For recurrent episodes, give Acyclovir 400mg orally TDS for 5 days;
- Caesarean section is indicated if the mother has active lesions at the time of birth;
- A new-born who is born by vaginal delivery to a woman who had developed primary genital herpes shortly before delivery should be referred to higher level.

The recommended treatment for donovanosis in pregnancy is:

- Treat with Erythromycin stearate or base, 500mg orally QID until all lesions healed.

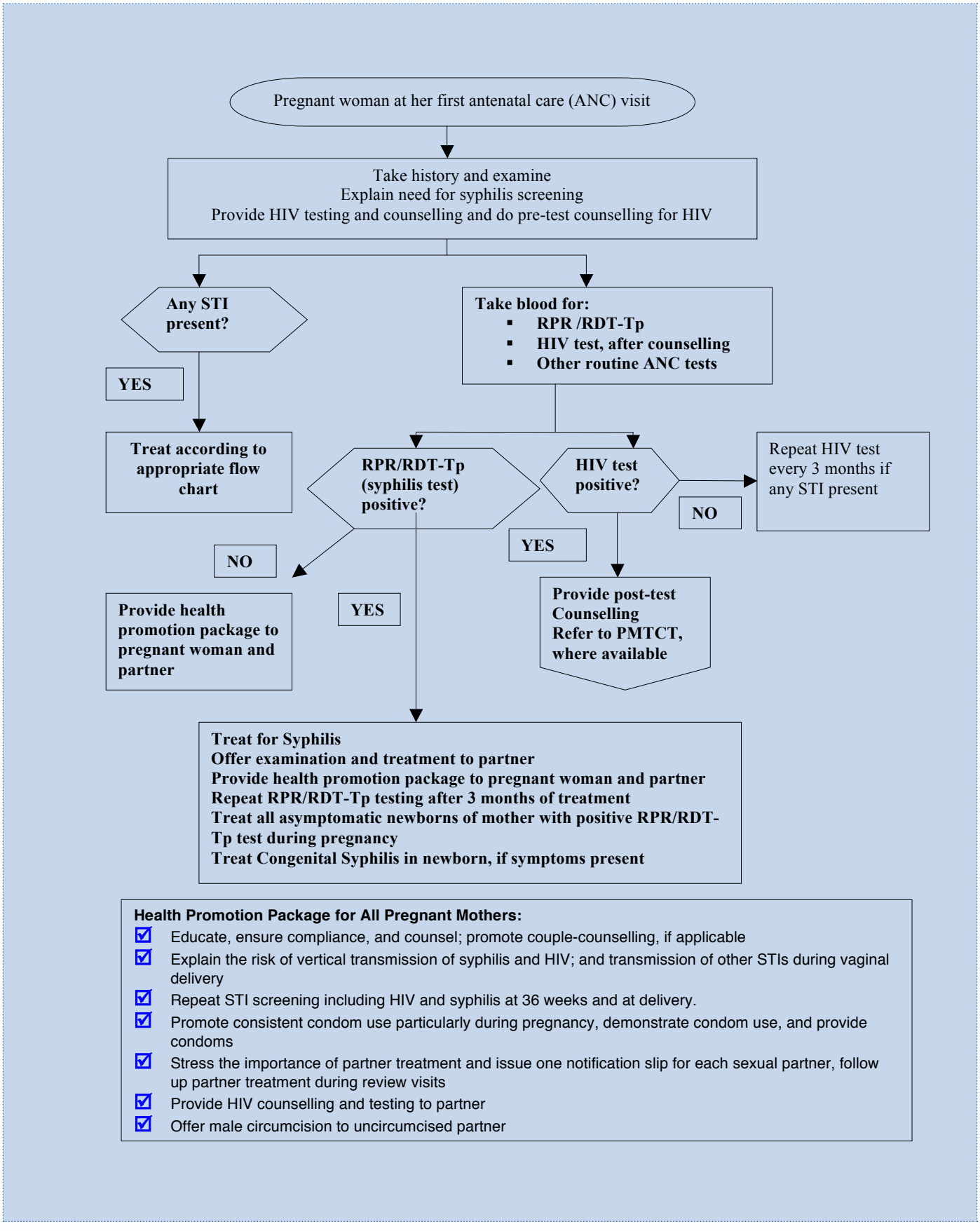
The recommended treatment for inguinal bubo in pregnancy is:

- Treat with Erythromycin stearate or base, 500mg orally QID for 14 days.

The recommended treatment for genital warts in pregnancy is:

- Podophyllin and Podophyllotoxin are contra-indicated in pregnancy and lactation;
- Warts can be left untreated until delivery, as these often might resolve on their own when immuno-suppressed stage of pregnancy reverses following childbirth;
- Local application of Trichloroacetic acid (TCA) 80 to 90% or cryotherapy is the treatment of choice for genital warts in pregnant woman.

Flow chart 9: STI screening for pregnant women




2.6.3 Balanitis and balanoposthitis

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

Clinical features

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

The physical examination may reveal signs of inflammation (such as red colour of skin, oedema, heat and tenderness). The texture of the skin will also be altered, with white patches or streaks in typical cases of candidal infection. Presence of genital ulcerations and urethral discharge should be sought, and if present should be treated according to the appropriate syndromic algorithms. Secondary bacterial infection may occur, causing superficial ulcers or erosions. Service providers should be aware that balanitis/balanoposthitis is commonly associated with diabetes mellitus and therefore should be ruled out by doing a urinalysis for glycosuria in chronic or recurrent cases.

Management

- Partners should be examined for the presence of vaginal discharge.
- Routinely offer male circumcision to uncircumcised male patients as part of the health promotion package. In refractory cases, circumcision may be necessary to prevent recurrence.
- If the condition is so severe that the foreskin cannot be retracted (phimosis), such cases should be referred to higher level for proper management.

Recommended treatment regimens

The treatment of balanitis or balanoposthitis consists of:

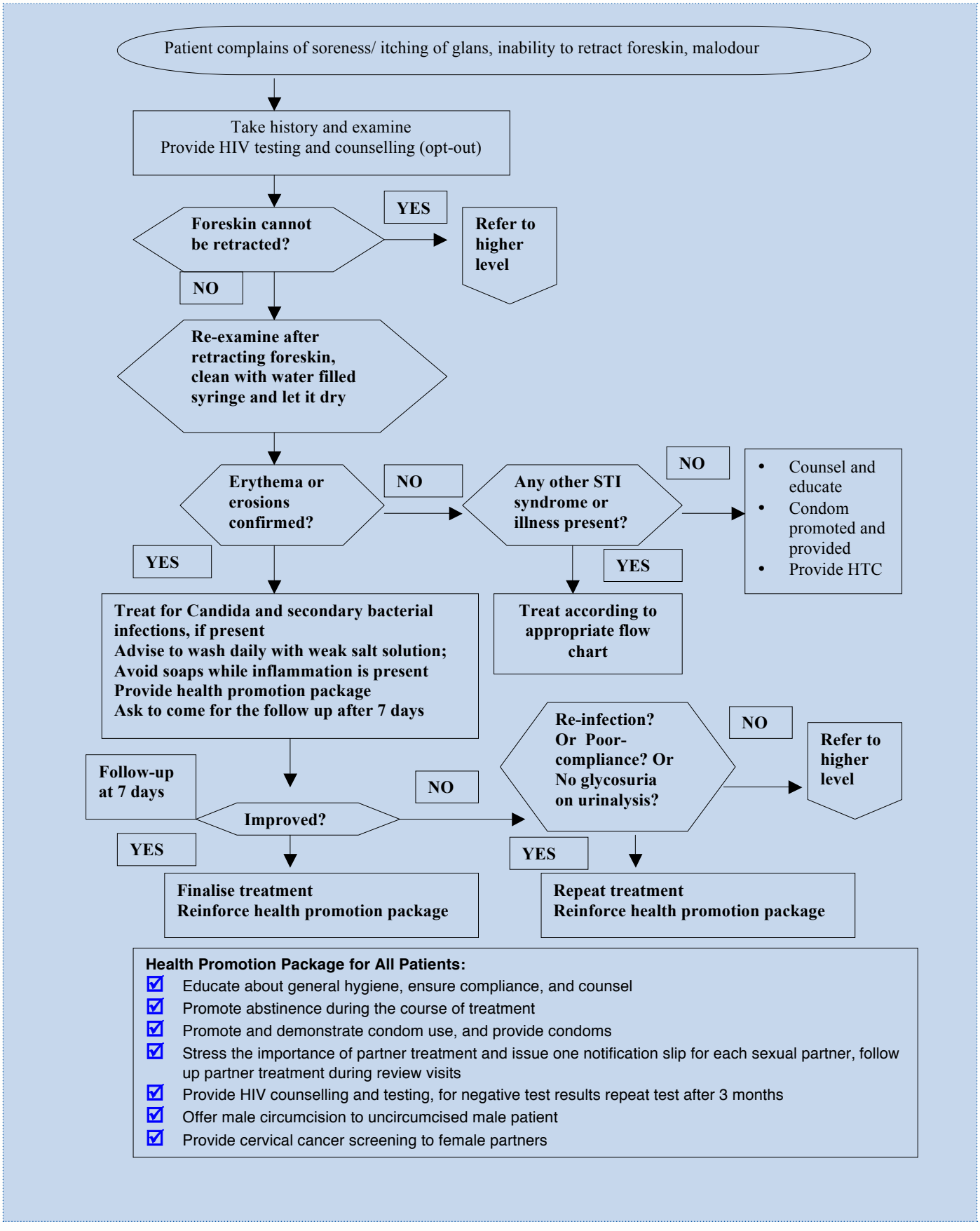
- Maintaining local hygiene by retracting the foreskin, if possible, when washing. Instruct patient to wash the affected area daily with weak saline solution (one teaspoon of salt dissolved in one litre of lukewarm water) and avoid soap while inflammation is present.

PLUS

- Local application of an antifungal cream such as Clotrimazole cream applied locally twice a day for 7 days. Amoxicillin and Metronidazole may be given if secondary bacterial infections present.

Patients with recurrent or severe balanitis or balanoposthitis should be screened for the presence of diabetes mellitus, by doing a urinalysis for glycosuria. If the test is positive, the patient should be referred to the higher level for further management.

Flow chart 10: Balanitis and balanoposthitis




2.6.4 Genital warts

Genital warts are caused by human papilloma virus (HPV). Low-risk HPV strains type 6 and 11, cause ano-genital warts, but are very rarely implicated in dysplasia or cancer. However, infection with high-risk HPV strains types 16, 18, 31, 33 and 35 are associated with dysplasia and cancer of the ano-genital region. Transmission occurs most commonly through sexual contact, probably enhanced by friction or micro-trauma.

Clinical features
Genital warts appear as raised (flat or papillary) skin coloured growths with a cauliflower-like surface on the ano-genital areas – peri-genital skin, vagina, cervix, anus or urethra. The patient with genital warts may or may not notice these growths, since they are painless, occur over a period of time and often regress spontaneously.

- On examination, the co-existence of other STI must be excluded. It is important to exclude secondary syphilis since the warts (especially in the anal region) can be confused with condylomata lata.

- In women, an internal examination using speculum should be done to detect possible warts or ulcers on the vaginal wall and cervix.

- The service provider should examine the female partner of the male patient to rule out any hidden lesions in vagina or cervix.

Management
The primary goal of treatment of genital warts is to eliminate the symptoms caused by the visible lesions. Lesions often reoccur due to difficulty in achieving complete eradication of the virus, and infectivity even after the treatment. Patients may experience adverse psychological effects, due to the appearance of the lesions on genitalia. Therefore, it is important to provide appropriate supportive counselling to the patient, as well as the partner, about the nature of the illness.

- In view of its association with cervical cancer, women with genital warts and female partner(s) of the male patient should be encouraged to undergo routine screening for cervical cancer as per national guidelines.

- Male circumcision procedure should be offered to all uncircumcised male patients and partners.

Recommended treatment regimen

Chemical cauterisation

- 20% Podophyllin in compound Tincture of Benzoin applied to the warts, while carefully protecting the surrounding area with vaseline, to be washed off after 1~ 3 hours. It is recommended that Podophyllin, 0.5 ml or less per session, be applied and/or 10 cm2 or less of warts per session be cauterised.

- Treatment should be repeated weekly until lesions resolve completely. Podophyllin application should be done under medical supervision. Patients should be warned against self-medication.

OR

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

OR

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

Contraindications of Podophyllin and Podophyllotoxin use:

- Podophyllin and Podophyllotoxin are contra-indicated in pregnancy and lactation. They should not be used as a treatment modality for anal, urethral, vaginal or cervical warts.

Physical treatment modalities

- Cryotherapy, if available. Repeat application at 1~2 week intervals. It is non-toxic, does not result in scarring if done properly and does not require any anaesthesia.

OR

- Electrocautery

OR

- Surgical excision

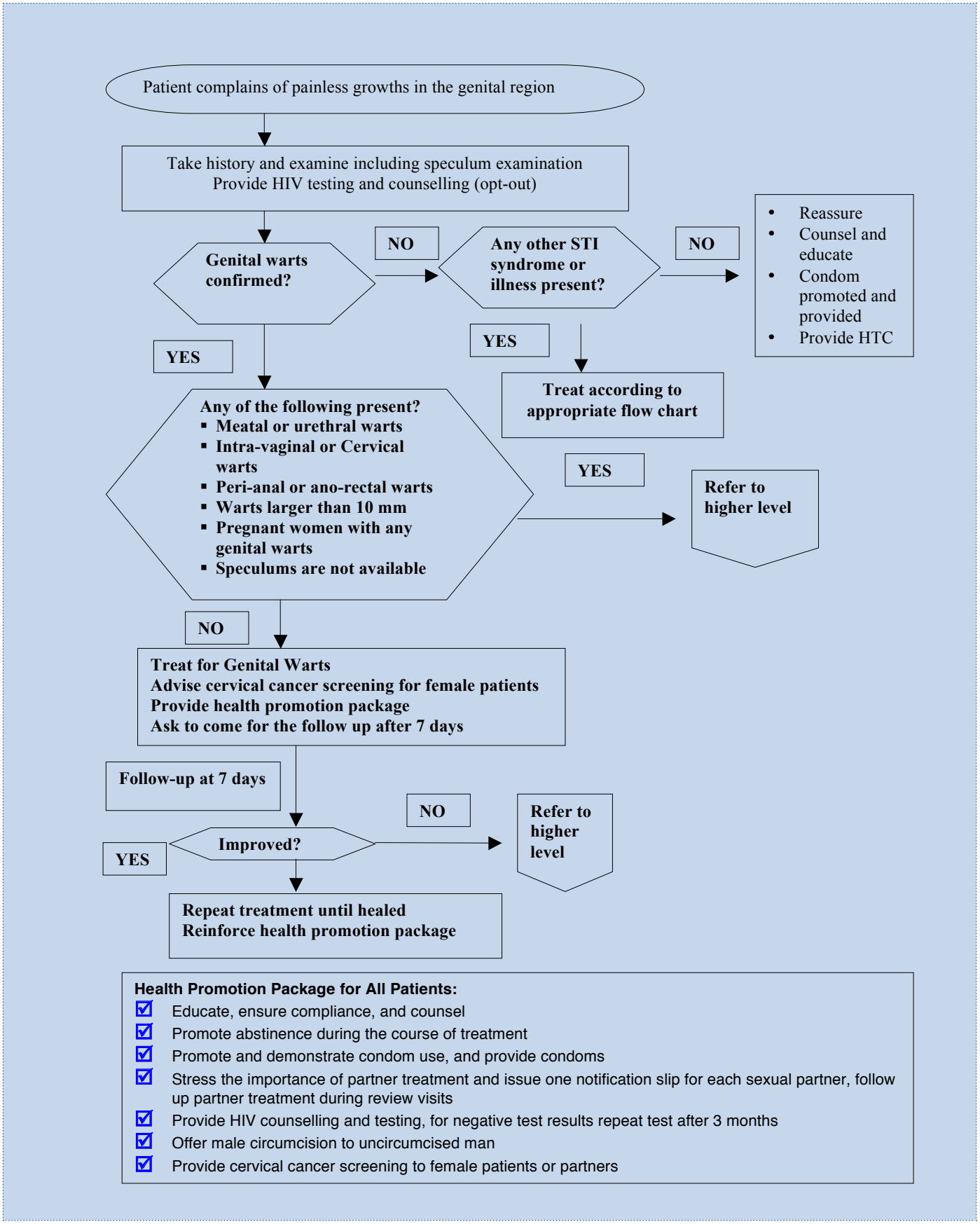
Cases for referral

In cases where pregnant women present with any genital warts, Podophyllin and Podophyllotoxin are contra-indicated in pregnancy and lactation. Warts can be left untreated until delivery, since they frequently resolve on their own when immuno-suppressed stage of pregnancy reverses following childbirth. Local application of Trichloroacetic acid (TCA) 80 to 90% or cryotherapy is the treatment of choice for genital warts in pregnant woman.

The following cases should be referred:

- Females with genital warts where speculums are not available;
- Non-responding warts after 3 cycles of chemical treatment;
- Meatal or urethral warts;
- Intra-vaginal or Cervical warts;
- Peri-anal or ano-rectal warts;
- Lesion size larger than 10 mm.

Flow chart 11: Genital warts



2.6.5 Molluscum contagiosum

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

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

- Excisional curettage: Each lesion should be thoroughly opened with a fine sterile needle. The contents should be expressed and the inner wall touched with either Phenol/ Silver Nitrate/ 30% Trichloroacetic acid or Iodine solution.

OR

- Apply Podophyllotoxin 0.5% to the individual lesion BID for 3 days.

OR

- Imiquimod 5% cream.

OR

- Cryotherapy with liquid nitrogen.

Cases for referral
Patients with generalised lesions should be encouraged to undergo HIV testing and counselling, if their sero-status is unknown. These patients should be referred to the higher level for further management.

Health Promotion Package for All Patients:

- Educate about personal hygiene, ensure compliance, and counsel
- Promote and demonstrate condom use, and provide condoms
- Stress the importance of partner treatment and issue one notification slip for each sexual partner, follow up partner treatment during review visits
- Provide HIV counselling and testing, for negative test results repeat test after 3 months
- Offer male circumcision to uncircumcised man/partner
- Provide cervical cancer screening to female patient or partner


2.6.6 Pediculosis pubis

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

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

Management
Recommended treatment regimens in adults

- Gamma Benzene Hexachloride (GBH), 1% lotion or cream, to be rubbed thoroughly with the fingers into the infested hairy and adjacent areas, near the roots of the hair at night, Followed by bath the next morning or it can be applied at any time during the day and washed off after 8 hours.

OR

- Benzyl Benzoate (BB) 25% emulsion or lotion to be applied to all over the body below neck. Leave this on for 24 hours, and then wash thoroughly.

OR

- Permethrin, 1% lotion, to be rubbed thoroughly with fingers into the infested and adjacent hairy areas and washed off after 10 ~ 20 minutes.

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

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

The recommended regimen is:

- Permethrin 1% cream to be applied, as above.

Treatment for Pediculosis of eyelashes or eyebrows

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

Special instructions

- Re-treatment is indicated after 7 days if lice are found or eggs are observed at the hair-skin junction;
- Advise that the genital area should be shaved;
- Clothing or bed linen that may have been contaminated by the patient within the past two days should be washed and thoroughly dried;
- Sexual and close household contacts must be treated simultaneously, even those who are not complaining of any itching or do not have any sign of parasite.

Cases for referral:

If severe secondary infection, fever or swollen tender lymph nodes: refer to higher level.

Health Promotion Package for All Patients:

- Educate about personal hygiene, ensure compliance, and counsel
- All clothing, including bed linen, used by the patient and his contacts should be washed properly and well dried in sun light.
- Sexual and close household contacts must be treated simultaneously, even those who are not complaining of any itching or do not have any skin lesions.
- Stress the importance of partner treatment and issue one notification slip for each sexual partner, follow up partner treatment during review visits
- Provide HIV counselling and testing, for negative test results repeat test after 3 months
- Offer male circumcision to uncircumcised man/partner
- Provide cervical cancer screening to female patient or partner

2.6.7 Genital scabies

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

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

Management

Recommended treatment regimens in adults

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

OR

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

OR

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

OR

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

OR

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

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

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

The recommended regimen is:

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

Special instructions

- Sexual and close household contacts must be treated simultaneously, even those who are not complaining of any itching or do not have any skin lesions;
- Itching may persist for few weeks after adequate therapy. Oral antihistamine should be given for the relief of itching;
- A second course of local application is needed if there is no clinical improvement.

Cases for referral

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

Health Promotion Package for All Patients:

- Educate about personal hygiene, ensure compliance, and counsel
- All clothing, including bed linen, used by the patient and his contacts should be washed properly and well dried in sun light.
- Sexual and close household contacts must be treated simultaneously, even those who are not complaining of any itching or do not have any skin lesions.
- Stress the importance of partner treatment and issue one notification slip for each sexual partner, follow up partner treatment during review visits
- Provide HIV counselling and testing, for negative test results repeat test after 3 months
- Offer male circumcision to uncircumcised man/partner
- Provide cervical cancer screening to female patient or partner

2.6.8 Human papilloma virus infection

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

Clinical features
The key determinants of HPV infection for both men and women are sexual behaviours, including young age at sexual debut, high number of sexual partner(s), and having a partner who has multiple partners. Smoking is a potential risk factor for cervical cancer. Most HPV infections (low- or high-risk) resolve spontaneously. However, high-risk HPV infections that persist may lead to the development of precancerous and invasive cancer. It usually takes 10-20 years for precursor lesions caused by HPV to develop into invasive cancers.

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

- All women and men presenting at health facilities should be offered a complete ano-genital examination to determine whether they have this HPV-related cancer.
- It is recommended that all sexually active women should have regular cervical cancer screening in accordance with the national guidelines. In patients with genital warts, cervical cancer screening should be done as a priority.
- Male circumcision should be offered to all uncircumcised male patients and partners.
- Smoking cessation interventions should be implemented at the individual and community levels.
- Highly effective vaccines against high-risk types of HPV have recently become available. Each Member State should consider how to take best advantage of this important medical advance.

2.6.9 Hepatitis B virus infection

Hepatitis B virus infection can be transmitted through sexual intercourse. Other modes of transmission include vertical infection from mother to child during birth, blood transfusion with infected blood or blood products and through piercing of skin by contaminated needles or sharp instruments.

Clinical features
Primary hepatitis B infection in adults is usually sub-clinical and self-limiting. However, about 6-10% of infected patients may become chronic carriers, and about 25% of them may develop chronic active hepatitis. In about 15-30% of chronic hepatitis cases, cirrhosis of the liver may develop, which may involve a risk of hepato-cellular carcinoma.

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


2.6.10 Hepatitis C virus infection

Hepatitis C is a liver disease caused by the hepatitis C virus (HCV). It is a chronic blood-borne infection. The major modes of transmission are contact with HCV-infected blood through blood transfusion and sharing of contaminated needles or other injecting equipment during intravenous drug use. Several epidemiological studies indicate that sexual transmission of HCV is possible but inefficient. (30) Despite that, persons at risk for infection through injection drug use might seek care in STI treatment facilities, HIV counselling and testing facilities, drug treatment facilities, and other public health settings where STI and HIV prevention and control services are available.

Clinical features
Most people (60-70%) with hepatitis C have no symptoms. If symptoms develop with acute infection, they can appear between 2 weeks and 6 months after exposure, and can include: fever, fatigue, loss of appetite, nausea, vomiting, abdominal pain, dark urine, clay coloured bowel movements, joint pain, and jaundice. Chronic HCV infection develops in 70–85% of HCV-infected persons. For people with chronic hepatitis C, symptoms may take years to develop. They can be similar to acute infection and can also be a sign of advanced liver disease.

Preventive measures
Currently, there is no effective vaccine or post-exposure prophylaxis against HCV infection. Therefore, primary prevention activities that reduce risks for contracting HCV infection, and secondary prevention activities that reduce risks for liver and other chronic diseases in HCV-infected persons should be implemented. (31)

- Primary prevention activities include routine screening and testing of blood and blood products, and risk-reduction counselling and services.
- Secondary prevention activities include identification, counselling and testing of persons at risk, and medical management of infected persons.
- In order to prevent occupational transmission of HCV in healthcare settings, all service providers should follow universal precautions, including barrier precautions and the safe handling of sharp instruments.

In addition, surveillance and evaluation activities are required to determine the effectiveness of prevention programmes in reducing incidence of disease, identifying persons infected with HCV, providing appropriate medical follow-up, and promoting healthy lifestyles and behaviours.

2.6.11 Partner notification and treatment

Partner notification (or contact tracing) and management of sexual partner(s) are important components of STI case management. This involves informing the partners of a person with an STI of the possibility of exposure, offering diagnosis and treatment, and providing advice about preventing future infections. Failure to treat an infected partner (whether symptomatic or asymptomatic) with a non-viral STI will invariably lead to re-infection. Hence partner management is the only way of breaking the cycle of transmission and preventing the development of potential STI complications. Partner tracing or notification and management offer opportunities to identify and treat people who otherwise would not receive treatment. It also offers opportunity to provide focused STI and HIV education.

Approaches to partner management

Passive contact tracing or patient referral
In passive contact tracing, the index patient takes responsibility for notifying partner(s) and asking them to come for treatment. Alternatively, the patient is supplied with medications to present to their sexual partners. The service provider is not directly involved in the process. However, the service provider can facilitate the process by providing effective counselling and motivation to the index patient.

Active contact tracing or provider referral
In active contact tracing, the healthcare team is directly involved in contacting and notifying the partner(s) of the index patient.

Conditional or contract referral
Index patients agree to notify their sexual partners, with the understanding that healthcare personnel will notify those partners who do not present for treatment within a specified time. The choice of approach can be determined based on the availability of resources and acceptability in the target population.

Principles of partner management
Contact tracing or partner notification should be conducted in such a way that all information remains confidential, and it should occur in a voluntary and non-coercive manner. Partner treatment should be offered to all persons who have had sex with the patient most recently and in the previous 3 months.

As with the index patient, the partner should receive comprehensive case management including:

- Appropriate treatment for the STI syndrome (Table 2.3). Always treat the partner according to the recommended guidelines, regardless of whether or not symptoms or signs are evident. If the partner shows signs and symptoms of other STI, treat both the syndromes that the partner was treated for, as well as the syndrome found during the visit;
- Information regarding the nature of the infection and methods for preventing infection;
- Patient-centred risk-reduction counselling;
- Condoms provision and a demonstration of how to use them;
- Information on how other partners can be treated. The partner should be given contact referral slip for her or his other partners;
- HIV testing and counselling;
- An offer of male circumcision to the male partner (if uncircumcised); and
- An offer of cervical cancer screening to the female partner.

Table 2.3: Clinical management of sexual partner(s) of STI patient (index case)

Primary infection of STI index case	Partner(s) treatment
Urethral Discharge Syndrome	Treat partner for gonorrhoea, chlamydia and trichomonas
Scrotal Swelling Syndrome	Treat partner for gonorrhoea and chlamydia
Vaginal Discharge Syndrome (Cervicitis)	Treat partner for gonorrhoea and chlamydia
Vaginal Discharge Syndrome (Vaginitis)	Service provider to make clinical judgment If balanitis/balanoposthitis present, then treat for candida
Lower Abdominal Pain in women	Treat partner for gonorrhoea and chlamydia
Genital Ulcer Syndrome (Non- Herpetic: presence of only ulcers)	Treat partner for syphilis and chancroid
Genital Ulcer Syndrome (Herpes)	If herpes lesions (vesicles) present on examination, then treat for herpes
Inguinal Swelling Syndrome without genital ulcers	Treat partner for Lymphogranuloma Venereum
Genital Warts	If genital warts present, then treat for genital warts Do speculum and cervical caner screening examination for female partner
Pubic Lice	Simultaneous treatment as index case, even if no signs or symptoms
Genital Scabies	Simultaneous treatment as index case, even if no signs or symptoms


2.7 Management of STIs in special populations

2.7.1 STIs in sex workers

High rates of curable STIs have been observed worldwide in commercial sex settings where condom use rates are low and where there is limited access to effective STI treatment services. An effective strategy for preventing and treating STIs involves addressing both asymptomatic and symptomatic infections, especially for most-at-risk groups such as sex workers. However, in the absence of data on prevalence of symptomatic and asymptomatic STIs among sex workers populations in the region, the following steps are recommended as a regional strategy for diagnosing and treating STIs in sex workers.

Management of symptomatic infections
Sex work is illegal in all SADC Member States. However, as with other STI patients, service providers should be mindful of respecting patient confidentiality and maintaining a non-judgemental attitude while providing services to sex workers.

- During a clinic visit by a sex worker, clinic staff should take a careful history and perform a complete physical and genital examination. The examination and treatment of symptomatic infections should follow the same guidelines and flow charts provided in this document. If there is sign of an STI syndrome, treatment should be given according to the appropriate flow chart.

- Sex workers should be counselled at every opportunity about the importance of using condoms with their clients and partners, and should be provided with condom negotiation skills. Facility staff should reinforce the message that the antibiotics dispensed at the facility are effective only for the few curable STIs. Staff should emphasise that the only reliable way to protect oneself from HIV and STIs is to use condoms consistently and correctly.

- Health facilities near major travel routes, bars or shebeens and bachelor hostels, where commercial sex may occur, should be aware of the possibility of treating sex workers as facility clients and therefore, should include innovate measures to reach this high-risk group.

Screening and treatment of asymptomatic infections
Although many of the infections experienced by sex workers will be symptomatic, some infections will remain asymptomatic. The prevalence of asymptomatic STIs among sex workers in the region is not known. Most syphilis in the community is latent (asymptomatic) and remains undetected unless serological tests are performed. Regular screening for STIs (32), periodic presumptive treatments (PPT) (33) for asymptomatic gonococcal and chlamydial infections or regular (for example, bi-annual) serologic screening for syphilis are some of the strategies that could be adopted by Member States to manage asymptomatic infections in most-at-risk groups.

2.7.2 STIs in men who have sex with men

STIs in men who have sex with men (MSM) are no different from STIs in the rest of the population, but the types of sexual practices determine the site where STIs occur. STIs in MSM can be transmitted by penile-anal contact, oro-anal contact, or fingering. Ano-genital symptoms can result due to penile-anal contact. Symptoms due to peri-anal ulcers (for example, herpes, chancroid and syphilis) and warts can cause pain, tenesmus, bleeding, and discharge. Oro-anal intercourse can lead to the transmission of a wide variety of other organisms normally transmitted by the faeco-oral route. These include hepatitis A virus, shigella, salmonella, and giardia, resulting in gastro-intestinal symptoms. Anal intraepithelial neoplasia and invasive carcinoma may follow infection with high-risk subtypes of human papilloma virus. Oral and peri-oral symptoms can result because of oro-genital sexual activity. Oral STIs usually are asymptomatic. Neisseria gonorrhoeae and Chlamydia infect the pharyngeal mucosa readily, but rarely cause pharyngeal infections. Syphilis, chancroid and herpes may cause ulcers on the tongue, oral mucosa, palate or lips. Warts may develop in and around the mouth.

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

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

Treatment for sexually-transmitted Pharyngitis

Cefixime, 400 mg orally stat (to treat gonococcal infection) PLUS

Azithromycin, 1 g orally stat (to treat chlamydial infection)

Management of sexually transmitted ano-rectal infections or proctitis
Proctitis is an inflammation of the rectal wall and is the most common reaction to an ano-rectal STI (due to gonorrhoea, syphilis, chlamydia or herpes). Anyone whose immune system is impaired is at increased risk of developing proctitis, particularly from infections caused by the herpes simplex virus or cytomegalovirus, or from reactivation of an earlier infection. Proctitis may be caused by Salmonella spp., Shigella spp., or Entamoeba histolytica as a part of gastroenteritis, which may manifest as diarrhoea with fever, anorexia, and abdominal cramps. Antibiotics that destroy normal intestinal bacteria and allow other bacteria to grow in their place may also cause proctitis. Herpes proctitis may be mistaken for the rectal manifestation of ulcerative colitis or Crohn's disease. Proctitis typically causes painless bleeding or the passage of mucus (sometimes mistaken for diarrhoea) from the rectum. There may also be ineffectual straining to defecate ("tenesmus"), sometimes mistakenly described as "constipation" by patients. The anus and rectum may be intensely painful, with external and internal ulceration, when the cause is gonorrhoea, herpes, or cytomegalovirus infection. A proctoscopic examination (which should be done, if feasible) will reveal rectal pus, bleeding or ulceration.

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

Treatment for sexually transmitted proctitis

Cefixime, 400 mg orally stat (to treat gonococcal infection) PLUS

Azithromycin, 1 g orally stat (to treat chlamydial infection)

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

2.7.3 STIs in mobile populations

SADC governments are concerned that the movement of people between Member States is a major factor in the spread of HIV and other STIs. (34) Today there is increasing recognition that mobile populations (including truck drivers or transport workers, migrant workers, domestic workers, farm workers, military personnel and refugees) are more vulnerable to STIs and HIV than non-migrating populations. They may have little or no access to health information, health services and means of STI or HIV prevention (such as condoms) or treatment of STIs. They may also be at higher risk due to additional factors such as discrimination, exploitation, harassment, and scant legal or social protection in the host community.

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

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

2.7.4 STIs in prisoners and detainees

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

- In general, it is recommended that all new prisoners or detainees should have a thorough health assessment upon intake, and that identified STIs should be treated immediately.
- Additionally, the new detainees should be offered HIV counselling and testing;
- Condoms should be available in prisons and should be distributed among detainees to prevent infections. STI management and treatment in prisoners or detainees is the same as outlined in the previous sections.

2.7.5 Preventing STIs in victims of sexual abuse

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

- The alleged offender is known to have an STI or to be at high risk for STIs; and/or
- Symptoms and signs of an STI are detected in history and physical examination.
  The scheduling of examinations should be based on the history of assault or abuse. The following recommendation for scheduling examinations should serve as a general guide (35):
- If the incident is recent, a follow-up visit (approximately one week after the last sexual exposure) is needed to repeat the physical examination and to collect additional specimens, in order to allow sufficient time for infections to incubate.
- Similarly, to allow sufficient time for antibodies to develop, an additional follow-up visit at approximately 12 weeks after the last sexual exposure is also necessary to collect blood for RPR or RDT-Tp test and HIV testing (after pre-test counselling with consent).
- A single examination may be sufficient if the person has been abused over an extended period of time, and/or the last alleged episode of abuse has occurred some time before the patient presents for medical evaluation.

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

Presumptive treatment for Sexually Transmitted Infections in sexual abuse victims

Cefixime, 400 mg orally stat PLUS

Azithromycin, 1 g orally stat PLUS

Metronidazole, 2 g orally stat

Include other measures:

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

2.7.6 STIs in children and adolescents

STIs in neonates and very young children (0 to 10 years)
Several common STIs can be transmitted from mother to baby before or during birth, and can pose a significant health threat to the newborn (neonate). For this reason, it is especially important to detect and appropriately manage STIs in pregnant mothers as early as possible. The clinical signs of STIs in neonates vary depending on the etiologic agent and severity of maternal infection, and can range from very mild to very severe. Some of the most common neonatal STIs are discussed below.

Management of STIs in neonates and very young children (0 to 10 years)

Congenital syphilis

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

- All infants of RPR/RDT-Tp/VDRL-positive mothers should be examined at birth and at 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.
- It is recommended that all infants born to RPR/RDT-Tp/VDRL-positive mothers should be treated with a single IM dose of Benzathine Penicillin, 50, 000 IU/kg, whether or not the mothers were treated during pregnancy (with or without penicillin).
- Hospitalization is recommended for all symptomatic babies born to mothers who were RPR/RDT-Tp/VDRL-positive.

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

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

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

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

- Aqueous Penicillin, 100,000 ~ 150,000 IU/kg/day IV in 2 divided doses daily for 10 days administered as 50,000 IU/kg/dose IV every 12 hours, during the first 7 days of life and every 8 hours thereafter for a total of 10 days.

OR

- Procaine Penicillin, 50,000 IU/kg IM in a single daily dose for 10 days.

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

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

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

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

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

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

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

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

Management of STIs in very young children (beyond neonatal period and up to 10 years of age)
The identification of a sexually transmissible agent in a child beyond the neonatal period, in the vast majority of cases, is suggestive of sexual abuse. However, exceptions do exist: for example, rectal or genital infection with C. trachomatis in very young children may be caused by peri-natally acquired infection, which may persist for up to 3 years. In addition, bacterial vaginosis and genital warts have been identified in both abused and non-abused children.

- When the only evidence of abuse is the isolation of an organism or the detection of antibodies to a sexually transmissible agent, findings should be carefully confirmed and considered.

- Service providers who suspect abuse must consider referral to specialised counselling, psychological and social support services for the complete management of these patients.

- STI prophylaxis or presumptive treatment for gonorrhoea and chlamydia in a sexually abused child is not recommended since very young girls appear to be at lower risk of ascending infection than adolescents or adult women. However, in light of increased risk for HIV transmission, these children should be referred to the higher level for child-centred psychological counselling, as well as for further clinical management.

STIs in pre-adolescents and adolescents (children 10 years and older)
There are differences in the epidemiology of STIs in adolescents and adults, because adolescents are regarded as being more biologically susceptible to infection and at increased risk of morbidity. However, in the majority of cases, the presentation of STIs is similar to that seen in adults. The most important differences are as follows:

- At the time of puberty and adolescence, the female genital tract undergoes changes in response to increasing levels of ovarian hormones. Along with anatomical and physiological changes, the vaginal epithelium begins to secrete mucus. The mucus secretion causes the adolescent girl to develop a white vaginal discharge, which is physiological. Generally, therefore, vaginal discharge is a poor predictor of the presence of either gonococcal or chlamydial infection.

- In pre-pubescent girls, the columnar epithelium of the endo-cervical canal extends to the vaginal portion of the cervix. This cervical ectropion, which is normally present in 60–80% of sexually active adolescents, is associated with an increased risk of C. trachomatis infection and N. gonorrhoeae. Exposure to oncogenic high-risk types of human papilloma virus enhances the risk of dysplasia and carcinoma at an early age.

- Additionally, because cervical mucus production and humoral immunity are absent until ovulation begins, the risk of PID or cervical infections is higher in the sexually active adolescent exposed to infection as opposed to the adult woman.

Management of STIs in pre-adolescents and adolescents (children 10 years and older)
The management of STIs in pre-adolescents and adolescents is similar to that of adults. The paediatric doses of drugs are provided in Table 2.4.

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

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

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

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

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

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

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

Table 2.4: Paediatric dosage for the common STI drugs

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

2.7.7 STIs in people living with HIV

A strong relationship exists between STIs and HIV infection (36):

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

Management of STIs in people living with HIV
The following is recommended in suspected or confirmed HIV and STI co-infection in patients:

- HIV counselling and testing should be offered routinely for all STIs patients. HIV testing may be considered as a priority in patients with severe or treatment-failure cases of STIs, and should be done only after obtaining their consent, with proper pre-and post-test counselling and whilst ensuring confidentiality.

- The treatment regimens for various STIs are the same in STI-HIV co-infected cases, as well as for non-HIV STI cases.

- In some cases of STIs in the presence of HIV infection, larger doses and longer treatment duration of the drugs listed under the various STI syndromes and conditions may be required. Those patients should be followed up regularly for longer duration.

- Excessive use of anti-microbials should be avoided, since this is likely to lead to more rapid development of antibiotic resistance. Therefore, clinical judgment on proper and early referral is required.

- Although counselling of individual patients on risk reduction and prevention of transmission to partners should be done with all STIs patients, this is of vital importance for those infected with HIV.

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

- Treatment for GUS in HIV infected patients is the same as for non-HIV patients. However, careful follow-up is necessary to ensure adequacy of treatment. These patients are more likely to experience extensive and more severe forms of ulcerations, treatment failure and ulcers heal more slowly. Increased dose and a more prolonged duration of therapy might be necessary.

- Patients should be followed up weekly until there is complete clearance of lesions.

- Patients should be counselled that GUS facilitates the transmission of HIV.

- Because data are limited concerning the therapeutic efficacy of Ceftriaxone and Azithromycin in chancroid, some specialists suggest using Erythromycin 500 mg orally QID for 7 day regimen for treating chancroid ulcers in HIV-infected persons;

- In HIV patients with Donovanosis, Gentamicin, 1 mg/kg intravenous (IV) TDS should be added if improvement is not evident within the first few days of therapy.

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

- Doses and duration of treatment with acyclovir should be increased;

- The recommended regimen is Acyclovir, 400 mg orally 3–5 times daily until complete clinical healing of lesions.

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

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


- Fluconazole, 150 mg orally as a single dose weekly for 6 months

OR

- Clotrimazole, 500 mg intra-vaginally weekly for 6 months.

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

3. BEHAVIOUR CHANGE COMMUNICATION FOR STIs MANAGEMENT

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

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

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

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

- Increased knowledge: Behaviour change communication should ensure that people have the basic facts about STIs in a language, visual medium or other media that they can understand and relate to. Effectiveness will motivate the target group to change their behaviours in positive ways.
- Promotion of services for prevention and treatment: Health-seeking behaviour should be a priority in all behaviour change communication activities so that the individuals go for preventive health check ups, early treatment and regular follow-ups. The health facility should collaborate with private practitioners, informal health sector such as traditional health practitioners, as they may be the preferred health providers for many STI patients, by establishing referral linkages or providing necessary trainings to them to ensure quality patient management.
- Stimulation of community dialogue: Facility staff should collaborate with groupings such as NGOs, CBOs, faith-based organisations and workplaces in the catchment area to enhance the promotion of healthy sexual behaviour, early health-seeking behaviour and improve outcome of partner notification and tracing. There should be encouragement of group and focused group discussions about the underlying factors, such as risk behaviours, risk settings and the environments that increase risk for STIs. Community dialogue will create a demand for information and services.

- Promotion of advocacy: Through advocacy, behaviour change communication can ensure that policy makers and opinion leaders understand the necessity for STI interventions and approach them seriously. Advocacy should take place at all levels, from the primary to the tertiary level. The health facility should sensitise and receive support on STIs and HIV AND AIDS issues from community health committees, civil society organisations, schools, workplaces and political leaders in the catchment area. Managers of cross-border province or district health facilities should promote communication and sharing of surveillance information and management protocols for strengthening inter-country collaboration.

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

4. QUALITY ASSURANCE

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

To achieve quality STI care services, each health facility can adopt the following approaches:

- Effective clinic operations and management, including:

  - Adequate infrastructure;
  - Compliance with clinical management guidelines; Medicine, equipments and commodity management;
  - Staff trainings in STI management; and
  - Client-friendly services (for example, adolescent- and youth-friendly).);

- Linkages and referrals to specialists, emergency services, HIV care, reproductive health and other support services;

- Promoting prevention activities, such as correct and consistent use of male condoms and female condoms, behaviour change communication for safer sexual practices, partner management, HIV testing and counselling, male circumcision and cervical cancer screening;

- Strong links with catchment population through community outreach activities;

- Collaboration in STI reporting, monitoring and evaluation;

- Periodic quality care audits;

- Ongoing supportive supervision of staff; and

- Operations research

4.1 Quality assurance approaches in STI care services

4.1.1 Clinic structure

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

- Health facility buildings should be properly maintained to ensure a comfortable, safe and hygienic environment;
- The internal structure of the clinic should, at a minimum, include the following to ensure physical privacy, auditory privacy and confidentiality of patient interviews and information:
  - Waiting and registration area,
  - Consultation room,
  - Counselling room, and
  - Toilet facility.
- The consultation room and the counselling room should have doors, and their walls should be thick enough to ensure both auditory and visual privacy. In order to further ensure privacy, patients should wait in the waiting and registration area, not in the consultation room or directly outside the door;.
- In the consultation room, the examination table should be positioned to provide adequate space at the end of the table to appropriately view the genitalia during speculum examination. An examination light should always be available for use in the consulting room;.
- In areas where a separate counselling room is not available, counselling should be provided in the consultation room.

4.1.2 Staff training and skills

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

- Each clinic should have staff with the proper training and skills to adequately perform the following functions:
  - Clinic administration, patient registration, record-keeping and reporting;
  - Sexual and reproductive health history-taking; clinical examination; patient management, including health promotion counselling and education; partner notification; and patient referral;
  - Syphilis and HIV testing;
  - Maintenance of clinical standards for STI management; and
  - Procurement and maintenance of clinic supplies and medicines.
- Each health facility should have enough qualified staff to ensure a smooth flow of patients through the facility, and to allow staff to give each patient enough time and attention without creating excessive waiting times for other patients;
- Each facility should implement a plan for ongoing technical support and supervision of staff. The plan should be based on protocols, which specifically address the following key areas:
  - Effective interpersonal communication;
  - Ensuring an ethical standards;
  - Protecting patient confidentiality and privacy; and,
  - Adherence to appropriate clinic standards of practice and policies.

Interpersonal communication

Risk reduction counselling and a patient-centered approach relies on effective interpersonal communication. It is vital for exchanging behaviour-related information, for example, between service providers and patients. Proper channelling of the information between the service provider and patient is important if the patient is to trust the service provider's ability to solve the problem and the service provider is to gain a thorough understanding of the patient's illness. Interpersonal communication skills are best conveyed through practical training sessions in which participants interview simulated patients, and then review their performance on video or receive feedback from fellow participants.

Ethical standards

- All treatments, procedures, testing and counselling for all patients should be performed to the highest professional and ethical standards, within the limitations of the service.
- The staff should ensure, above all, that they do no harm to the patient;
- In all respects, the basic human rights of each patient must be respected and receive the utmost importance.

Confidentiality

Confidentiality is a cornerstone of high-quality sexual health clinical care.

- In all cases, the information contained in the medical records of patients using the service is confidential (should not be communicated to third parties outside the clinic service) and should never be in public view (for example, to patients in the waiting area).
- Only the patient's first name or registration number should be used when discussing cases or when calling a patient from the waiting area;
- Patients should be informed about how the clinic handles the sexual behaviour data that are collected, including the circumstances under which such information may be disclosed, whether it may be disclosed as aggregate or individual information, whether personal identifiers may be disclosed, and how and by whom such information may be used.

4.1.3 Standard treatment guidelines

- It is essential that the STI treatment recommendations should be standardised and that staff comply with STI clinical management guidelines.
- The treatment recommendations should be adapted, based on the local epidemiological and antimicrobial sensitivity information.
- Flow charts that describe the standardised approach should be readily available for the clinic staff and should be on display in each room where treatments are prescribed to patients;
- Each clinic should also ensure that all essential patient management medicines, equipments and consumables are adequate in quantity based on the patient load and maintained in good working order.

Allergic reactions management

- All clinics that administer antibiotic medications (particularly via intramuscular or intravenous injections) should be adequately equipped with emergency resuscitation drugs and equipments (Table 5), and should be prepared for emergency management of an allergic or anaphylactic reaction.
- A wall chart that outlines emergency management of anaphylaxis should be displayed prominently in the area where injections are given and in the area where patients will be observed following an injection;
- Patients with anaphylactic reactions should be provided prompt treatment and should be transferred to the nearest hospital or other appropriate facility as soon as it is safe to do so.


Precautions with penicillin administration

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

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

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

Table 4.1: Management of anaphylactic reaction

Management of anaphylactic reaction
Essential drugs and equipments: • Aqueous adrenaline (epinephrine) 1:1,000 dilution, for injection; • Antihistamines for injection and oral administration (such as diphenhydramine and chlorpheniramine); • Hydrocortisone for injection; • Intravenous set and normal saline solution bottles; • Ambu bag for ventilation; and • Oxygen and Oropharyngeal airway.
• Check for airway, breathing and circulation, and perform CPR, if necessary; • If Anaphylaxis (Signs of shock or difficulty breathing or generalised rash or hives); • Give Adrenaline intramuscularly. The dosage for adults or children 12 years and older is 0.5 ml (if older than 65 years: 0.3 ml), for children younger than 12 years it is 0.01ml/kg body weight (minimum 0.1 ml); repeat every 5–10 minutes until adequate response; • Check blood pressure and pulse at 5 to 10-minute intervals; • Give Hydrocortisone: Dosage – Adult 200 mg, children 100 mg IM or slow IV; • Give Chlorpheniramine: Dosage – Adult: 10-20 mg IM; Child 1 month to 1 year-old: 250 micrograms/kg (maximum 2.5 mg); 1-5 years-old: 2.5–5 mg; 6-12 years-old: 5–10 mg; or Diphenhydramine: Dosage – Adult: 50-100 mg IM; Child: 1 mg/kg body weight, up to 100 mg • Call for help, preferably a doctor; • Transfer patient to hospital; • Repeat adrenaline if necessary. Take extra doses with you; • Record all details of treatment; • Stay with the patient until doctor takes over the care in person.

Hospital infection control

- At each clinic or facility, universal precautions and infection control measures should be implemented and used at all times to prevent the transmission of blood-borne and other infections.

  - These precautions and control measures should be used with all patients, regardless of their occupation, socioeconomic status or HIV serostatus;
  - All staff should be trained in these universal precautions and procedures for cleaning, disinfecting and sterilising clinic and laboratory equipments.

- Hazardous waste must be disposed of in a safe manner that eliminates any possibility of infecting clinic staff or community members. Potentially infectious or toxic waste may include the following:

  - Dressings and swabs contaminated with bodily fluids, blood or pus;
  - Patient care equipment, including gloves, needles, syringes and items used in direct contact with the patient; and
  - Pharmaceutical waste, such as expired drugs, used rapid tests kits.

- All health facility staff who could come in contact with patients should have received a 3-dose vaccination series for hepatitis B. Any unvaccinated, susceptible person who comes into contact with blood or bodily fluids should immediately begin the hepatitis B vaccine series;

- If a staff member is exposed to a patient's blood or bodily fluids, the staff member must receive post-exposure prophylaxis treatment for HIV, according to the country's national guidelines.

Documentation and reporting

- Clinical history and examination findings, laboratory findings and recommendations for patient management should be recorded on standardisedstandardized forms that assist in patient follow-up and reporting purposes.

- Each facility should develop an operations manual or operations procedures that clearly describe the policies and procedures to be followed by the facility staff. The operations manual can include standards, examples of clinical management flow charts, roles and functions of staff, referral mechanisms, and documentation forms that are required to support case reporting, service monitoring and evaluation;

- Facility staff should be trained, guided and monitored on an on-going basis to build their capacity to handle the reporting records. Typical reporting records that should be maintained by each facility include:

  - Client form/card (a sample to adapt has been provided in Annex II);
  - Client/patient daily register;
  - Laboratory form and result record register;
  - Referral register;
  - Partner notification register;
  - Antenatal care register;
  - Daily stock register for drug and consumables; and
  - Daily and monthly reporting formats.

Technical support and supervision

- Facility managers should ensure, periodically at a regular interval, that technical support and supervision is provided to clinic staff and their day-today activities. The frequency of the supervisory visits could be determined by the needs of the clinic staff;

- The clinical supervisor should assess all major elements of clinic function. At a minimum, clinics should be assessed for their compliance with the minimum standards and norms as specified in this document. These broadly include:

- Accessibility, coordination with outreach services, and community satisfaction;
- Adequacy of staffing and staff knowledge, skills and performance;
- Adequacy and cleanliness of clinic structure and equipment;
- Safe and effective clinical examination, diagnosis and management;
- Laboratory quality assurance;
- Storage of drugs and consumables;
- Infection control and waste disposal; and
- Documentation, record -keeping and confidentiality.

Referral network establishment

- Patients whose health problems cannot be addressed or managed appropriately by the services available at the facility should be referred to a higher-level service, such as a secondary or tertiary care hospital. Such higher-level referrals may include STI specialist care, general medical care, obstetrics/gynaecological care, HIV/ART care services and other support services;

- The health facility should compile a list of recommended providers for referrals that includes names, addresses, telephone numbers and operating hours.

Coordination with outreach services

- Health facility staff should conduct outreach health camps in the community to raise awareness about facility services for those who may not be able to access services due to distance or other reasons;

- Health facility management should collaborate with community health workers, lay counsellors, CBOs and/or NGOs, faith-based organisations, workplace and other civil society groups, traditional healers and private practitioners working at the community level to increase health facility services outreach;

- Staff should ensure the involvement of community leaders in the facility activities, and invite them for regular meetings to discuss activities and coordination. Examples of topics for discussion at such meetings may include:

  - Community satisfaction with facility services (for example, clinic hours, privacy, cleanliness);
  - Patient compliance with medications and treatment;
  - Patient follow-up including partner management;
  - Acceptability and effectiveness of counselling or health education messages; and
  - Questions raised by the community about, for example, health issues.

Such collaboration ensures that the community acquires a solid understanding of the facility services and can help to address any perceived problems and issues with the STI care services. If problems and issues are not continually addressed in a timely manner, patient attendance will be low and the facility activities will have little impact on people in the catchment area.

Monitoring and evaluation

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

- Service delivery;

- Staff performance;

- Client satisfaction and response;

- Resource needs and allocation.

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

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

4.2 Management of STI medications and commodities

The trust in STI management gained through proper clinical examination and patient counselling could be severely eroded when STI drugs or condoms are out of stock or equipments malfunction when the patient uses the health facility. Unfortunately, shortages of drugs, equipments, test kits and other essential commodities are common in developing countries, including in the SADC region. There are many public health consequences of improper management of medications and commodities. For example, in case of drug stock-outs, the patient has to return at a later stage to collect drugs, but remains remains infective to others in the meantime. As a result, patients are treated inadequately and there is a growing likelihood of drug resistance and an increase in the pool of asymptomatic and symptomatic STI cases in the community. Patients sometimes consult informal practitioners who cannot assure the quality of care. It is therefore imperative to strengthen STI drug and commodity management systems at health facilities in the SADC region.

At a minimum, every consulting room of the health facility should have:

- An examination couch;
- Functional examination light (or torch, if no electricity);
- Disposable gloves;
- Adequate sterile vaginal specula of different sizes as per workload;
- Sharps equipment management system, including functional sterilisation instruments,
- Sex organ models for demonstrating male and female condom use;
- An adequate stock of male and female condoms and test kits and containers for taking blood, pap Smears, and other samples;
- Male and female condom dispensers that are placed so that condoms can be obtained with ease and confidentiality.

In addition, the following procedures must be followed:

- All facilities should maintain a current supply of the essential medicines and supplies, and should ensure adequate stock of functional equipments needed for STI syndromic management, as per national guidelines and protocols;
- Minimum stock levels and re-ordering of stock procedures should be defined. The procedures should be such that the essential medicines and supplies are always in stock, with a mechanism for obtaining emergency supplies when needed;
- All medications and consumables should be stored in a secure location and a mechanism should be in place for stock control including expiry date monitoring; and

- Standard operating procedures and forms required for managing drug and consumable stocks should be developed and services providers should be trained in its usage.

4.3 STI clinical quality of care norms and standards

A norm is defined as a numerical rate of provision or measurable target outcome over a specified period of time (for example, “one supervisory visit per month”). A standard is defined as a statement about a desired and acceptable level of healthcare (for example, “provide educational materials in the local language”). The SADC norms for clinical management of STI’s are provided in Table 6 and Table 7.

4.3.1 STI clinical quality of care assessment tool

The SADC STI Quality of Care Assessment Tool (see Annex I2) is designed to assess the quality of STI care that is provided in health facilities, and to identify areas for improvement. The tool outlines key inputs and processes related to the standards and norms for quality STI care. It was piloted successfully in Botswana, Lesotho, Namibia and Swaziland in 2004-2005. Facility managers or STI programme managers can use the tool while providing technical support and supervision and when conducting periodic facility quality of care audits.

Table 4.2: SADC regional norms for STI clinical quality of care

SADC regional norms and standards for STI clinical management quality of care

- At the health facility, STI care is provided as a comprehensive and integrated package in all primary healthcare services including family planning, antenatal care, adolescent-friendly services using a one-stop approach for at least 8 hours a day, 5 days a week.
- The facility has extended hours, and on-call staff during weekend, where possible.
- The facility receives a supportive monitoring visit followed by feedback by primary healthcare supervisor once a month.
- The facility receives a supportive monitoring visit by STI programme managers at least every 6 months to support personnel, monitor the quality of service and identify needs and priorities.
- Medical officers and other specialised health professionals are accessible for consultation, support and referral, and conduct visits to the facility at least once a month.
- All facility professional staff are trained in STI syndromic management, including non-drug management.
- All national and provincial STI officers are trained in STI programme management.
- STI syndromic management training is integrated into pre-service training curricula of all health training institutions.
- Universal safety precautions are practiced in all facilities.
- The health facility has at least one professional staff trained as a counsellor in HIV and AIDS and Sexually Transmitted Infections (preferably all will have been trained in Sexually Transmitted Infections).
- Community perception of services is assessed annually through patient interviews or anonymous patient questionnaires.
- The facility conducts client exit interviews quarterly to assess client satisfaction.
- The facility has a review of quality of care at least once a year by a supervisor preferably using the Sexually Transmitted Infections Quality of Care Assessment Tool.
- Client partner notification tools are in the appropriate language and illustrations are given to all STI client and reasons explained.
- All facilities have user-friendly services, skilled providers and infrastructure targeting special, and vulnerable groups (for example youth, sex workers, and people with disabilities).
- HIV counselling and testing is offered to all STI clients.
- HIV rapid test and syphilis test (RPR/RDT-Tp) kits are available in all facilities offering STI with quality assurance system in place.
- Cervical cancer screening (pap smears or visual inspection using acetic acid) is offered to all women clients of reproductive age as per national guidelines.
- Health practitioners are able to organise integrated outreach activities for the facility catchment area.
- Health management organises feedback on collected data at least once a year.

Table 4.3: SADC regional standards for STI clinical quality of care

SADC regional standards for STI clinical quality of care

References, prints and educational materials

- Sexually Transmitted Infections syndromic management guidelines are available in healthcare facilities.
- STI syndromic management flow charts for every syndrome are available in each and every consulting room.
- Sexually Transmitted Infections case management guidelines and protocols are reviewed in intervals as need arise but at least once in every five years.
- Relevant central and local health circulars, policy documents and protocols that impact on STI management service delivery are available in all facilities.
- Supplies of appropriate promotional and informational materials are in appropriate local languages and also for people with hearing or vision disabilities.

Functional equipment

- Availability of sterile vaginal specula of different sizes adequate for the workload.
- Male and female condom dispensers placed where condoms can be obtained with ease and confidentiality.
- Functional examination light (or torch, if no electricity) available for every consulting room.
- Sharps equipment management system available in every consulting room.
- Equipment for sterilisation of instruments available and functional.
- Equipment, test kits and containers for taking blood, pap smears, and other samples are available.
- Availability of disposable gloves.
- Availability of models for sex organs demonstrating male and female condom use at every consulting room.
- Examination couch available in every consulting room.

Medicines and supplies

- Essential medicines and supplies needed for STI syndromic management as per national guidelines and protocols are available in adequate amount.
- A mechanism is in place for stock control including expiry date monitoring.
- Minimum stock levels and re-ordering of stock procedures defined.
- Essential medicines and supplies always in stock, with a mechanism for obtaining emergency supplies when needed.

Competence of health practitioners

- Staff trained to follow the Sexually Transmitted Infections syndromic management treatment guidelines.
- Staff receive refresher courses or on-the-job training on syndromic management of Sexually Transmitted Infections annually after the pre-service training.
- Staff provide counselling that is sensitive to culture and the social circumstances of patients.
- Time is given for counselling and discussion of treatment and the need for contacts to be treated. Patients are further counselled on safe sex and HIV & AIDS.
- Staff have good interpersonal communication and listening skills along with a client friendly approach for evaluating their needs, and correcting misinformation.
- Staff able to take medical history and examine patients correctly and with dignity.
- If the patient's syndrome is vaginal discharge the possibility of it not being sexually transmitted is discussed.
- If client is pregnant then implications for the baby are discussed (congenital syphilis, neonatal conjunctivitis, HIV, chlamydia).
- Treatment provided at the facility is according to the protocol for each syndrome.
- Condom use is demonstrated using a male (dildo) or female sexual organ model.
- Client partner notification slips/cards in the correct language are given and reasons explained for bringing partners.
- Staff use a clear system for referrals and feedback on referrals.
- Staff are able to train community healthcare promoters to educate caregiver and facilitate community action.
- All primary service providers are familiar with the health facility STI surveillance programme and have been trained on the use of the relevant data collection and data management tools.
- Staff are aware of channels for STI surveillance data, are trained on utilisation of data and adhere to stated time-lines for their submissions.


Patient education

- Staff collaborate with the facility health committee and community civic organisations to identify needs of the community, maintain surveillance (follow-up) of cases, and give appropriate education to improve health awareness and reduce common risk factors.
- Culturally and linguistically appropriate patients' educational material is available for free distribution.
- Appropriate educational posters are visibly mounted on the wall for information and education of client's special needs.
- Service providers understand the dynamics of family life.
- All patients receive comprehensive health education, including information about symptomatic and asymptomatic Sexually Transmitted Infections, correct information about misconceptions, importance of compliance and follow-up visit.
- Each facility distributes messages that communicate the benefits of change in high-risk behaviour.

Health records

- The health facility has service registers/records, client partner notification slips/cards, relevant laboratory request and referral forms.
- The health facility utilises a standard health information system that enables and assists in collection and usage of data.
- All information on cases seen, discharged or referred is correctly recorded in the registers.
- Each health facility has a laboratory register.
- Each facility has a register of partner notification slips/cards that have been issued and returned.
- All registers and reports are kept up to date.
- Each facility allows continuity of healthcare.
- Patient records are kept in strict confidentiality.
- Facility managers ensure that STI data are properly collected, collated and submitted through the right channels regularly and timely.
- Procedures are in place for routinely monitoring the validity and flow of clinical STI data.
- Regular surveillance reports are available at the national and provincial/district levels to inform the STI control programme and give feedback to facility.

Community- & home-based activity

- The health facility has effective links with the community health committee, community organisations, schools, workplaces and political leaders in the catchment area.
- The health facility collaborates with traditional health practitioners to advocate for positive change in risky cultural practices, and to promote early health-seeking behaviour.
- The health facility has sensitised, and receives support on STI and HIV/ and AIDS issues from the community health committee, organisations, schools, workplaces and political leaders in the catchment area.
- The facility has effective links with the community health committee to improve outcome of partner notification and tracing.

Referral

- All STI clients are referred to the next level of care when their needs fall beyond the scope of facility staff competence.
- Conjunctivitis in new-borns is referred if no improvement is seen after initial treatment.
- The female client is referred if she is pregnant and has history of genital herpes in the last trimester of pregnancy.
- Lower abdominal pain in female client due to pelvic inflammatory disease is referred if the patient has pyrexia and tachycardia, or severe tenderness, or is found to be pregnant.
- A painful unilateral scrotal swelling in a client younger than 18 years is referred immediately for a surgical opinion regarding a possible torsion.
- Referrals within and outside the facility are recorded appropriately in the registers.
- Merits of STI referrals are assessed and discussed as part of the continuing education of the referring health professiona, in order to improve outcomes of referrals.
- Complicated genital warts are referred.

Collaboration

- Facility staff collaborate with the social welfare department to ensure social assistance is provided, and with other health related public sectors, as appropriate.
- Facility staff collaborate with organisations such as NGOs, CBOs, faith-based organisations and workplaces in the catchment area to enhance the promotion of healthy sexual behaviour.
- Facility staff collaborate with private practitioners and traditional healers in the facility catchment area.
- Managers of cross-border provincial or district health facilities collaborate and share surveillance information and management protocols.
- Inter-country collaboration is strengthened.

5. STI SURVEILLANCE

STIs surveillance is an epidemiological exercise by which the spread of STIs are monitored in order to establish patterns of progression. The main functions of STI surveillance is to record, observe, analyse, predict and understand STI trends to reduce the harm caused by STIs, and to increase the knowledge about the factors that contribute to such trends. It is an essential component for the STI and HIV prevention programmes. Accurate data enable strategic planning and provide information for advocacy, programme design, prioritisation of interventions, monitoring and evaluation, and to improve the quality of patient care and overall programme effectiveness.The following section provides practical guidance for Member States on strengthening the STI surveillance system to obtain meaningful data on STIs that can directly facilitate effective planning, execution and monitoring of STI control and prevention efforts at facility, provincial or district, and national levels. Currently, STI surveillance at the regional level is non-existent. The section also describes common core surveillance indicators that can provide a regional picture that is needed for the periodic review of policies, guidelines and protocols on STI-related issues in the SADC region.

5.1 Lessons learned from pilot studies

The STI clinical surveillance system described in Annex III was initially piloted in four SADC Member States namely (Botswana, Lesotho, Namibia and Swaziland). A range of successes and challenges were encountered during those pilot studies. Surveillance tools were successfully adapted and training service providers were trained. However, a few problems also emerged, including

- Actual collection and collation of data;
- Data capturing; and
- Data analysis and feedback.

Gaps in the data compilation (for example, the number of reportable cases versus the number that was actually reported) were common. This was often due to infrequent recording of STI syndrome, which was identified but not considered important enough to report. This may be due to the fact that data recording is not regarded as an important task. Surveillance tasks such as data capturing and analysis were seen as an additional, administrative workload that removed time for actual clinical care

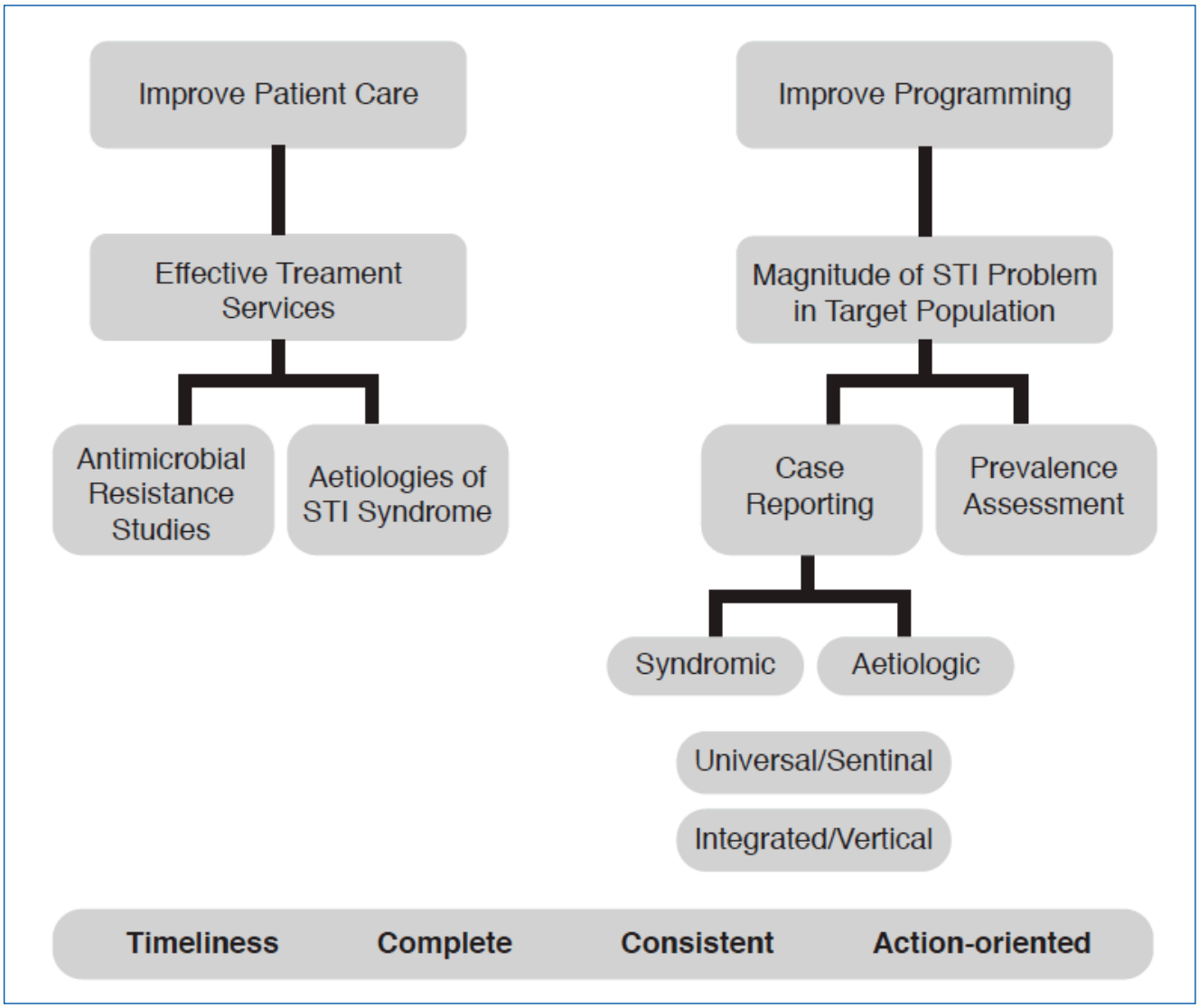
- It is vital to ensure service providers' cooperation in establishing and maintaining a surveillance system. Such cooperation may be imposed bureaucratically or encouraged with incentives (such as including surveillance activities in general performance assessments).
- Additional resources may be required to initiate a surveillance system. This may be in the form of nongovernmental partners, such as academic institutions, or by recruiting additional staff that are dedicated to the surveillance system. The private sector, to the greatest extent possible, should be included in the reporting system, despite the reluctance often encountered to report STIs to public health authorities because of concerns about privacy, apathy, or a perception that little is to be gained from the notification process.

5.2 Core components of STI surveillance system

The core components of a good STI surveillance system (Figure 5.1) that provides the necessary information for effective control programmes are (37):

- Case reporting;
- Prevalence assessment and monitoring;
- Assessment of aetiology of infections;
- Monitoring of anti-microbial resistance;
- Special studies.

Figure 5.1: Core components of STI surveillance



5.2.1 Case reporting

Case reporting is the process whereby service providers or laboratories report cases of disease to public health authorities. STIs may be reported syndromically or etiologically, depending on the availability of laboratory tests in clinical care settings.

The case reporting system can be universal (using integrated disease morbidity reports) or sentinel site-based (providing more detailed data on patients). The method of reporting depends on how services for prevention and control of STIs are delivered and organised. Case reporting has several purposes:

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

All healthcare facilities in the SADC region generate information for the respective Member State national health information systems. In many Member States, STIs conditions are tallied in aggregate fashion for reporting purposes, and individual syndromes are not specified.

While, this may be useful in describing the STIs as a disease-burden in relation to other causes of ill health, this information is insufficient for guiding targeted strategies for the control of individual syndromes and for planning STI interventions. Currently, not all national control programmes have an accurate picture of their respective STI epidemics, and the regional epidemic profile is sketchy. Since the clinical management of STIs in SADC Member States is syndrome-based, surveillance of STIs can only be effectively performed on the basis of syndrome classification of diseases.

Therefore, the establishment of a standardised STI clinical surveillance with well-defined case definitions (see Table 5.1) to achieve harmonisation is recommended for each Member State hin SADC region. The STI clinical surveillance standard operating procedures and tools are provided in Annex III. It is also hoped that implementation of such an intervention will result in improved STI surveillance across the States and also strengthen individual Member States' national STI control programmes.

- Sentinel surveillance usually involves a select few healthcare facilities. A national control programme, preferably with the assistance of an epidemiologist and bio-statistician, should decide on the number of facilities to be involved in the STI surveillance. This will determine the number and level of service providers to be trained.
- High staff turnover and rotation within Member States' health systems remain challenges. A decision must be made whether all service providers should be trained in STI surveillance along the STI clinical management, in order to ensure that the surveillance system is not disrupted when new staff are employed at a sentinel site.
- The basic STI clinical surveillance activities should be implemented in each Member State. These should be either universal reporting or sentinel site reporting, depending on the availability of resources.
  Other components of the surveillance as described below could also be adapted.


5.2.2 Prevalence assessment and monitoring

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

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

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

Most Member States routinely collect data on the prevalence of syphilis among pregnant women.

Table 5.1: Standardised definitions of terms for STI clinical surveillance

Standard definitions of STI clinical surveillance		
Term	**Definition**	**Additional information**
Genital ulcer syndrome – non-vesicular (GUS)	Ulcer on penis, scrotum, or rectum in men and on labia, vagina, or rectum in women, with or without inguinal adenopathy.	This syndrome can be caused by syphilis, chancroid, lymphogranuloma venereum, granuloma inguinale, or atypical cases of genital herpes
Genital ulcer syndrome – vesicular or Genital Blisters (GB)	Genital or anal vesicles in men or women.	This syndrome is typically caused by genital HSV infection.
Urethral discharge syndrome (UDS)	Urethral discharge in men with or without dysuria.	This syndrome is most commonly caused by Neisseria gonorrhoeae and Chlamydia trachomatis; other infectious agents associated with urethral discharge include Trichomonas vaginalis, Ureaplasma urealyticum, and Mycoplasma spp.
Vaginal discharge syndrome (VDS)	Abnormal vaginal discharge (indicated by amount, colour and odour) with or without lower abdominal pain or specific symptoms or specific risk factors.	This syndrome is most commonly caused by bacterial vaginosis, vulvovaginal candidiasis and trichomoniasis. It is less frequently caused by gonococcal or chlamydial infection.
Lower abdominal pain in women (LAP)	Symptoms of lower abdominal pain and pain during sexual intercourse with examination showing vaginal discharge, lower abdominal tenderness on palpation, or temperature higher than 38°C.	This syndrome, which is suggestive of pelvic inflammatory disease, may be caused by gonococcal, chlamydial, or anaerobic infection.
Scrotal swelling syndrome in men (SSS)	Painful or painless swelling of scrotum with or without urethral discharge.	This syndrome is suggestive of complicated urethral discharge syndrome cause by gonococcal and chlamydial infection.
Genital warts (GW)	Raised or flat growths on penis, urethra, scrotum, or rectum, buttocks, inner thighs in men and on labia, vagina, cervix, urethra or rectum, buttocks, inner thighs in women.	This condition is caused by various subtypes of human papilloma virus (HPV) infection
Other Sexually Transmitted Infections (O)	This definition includes following Sexually Transmitted Infections in men or women: [nguinal bubo syndrome, genital molluscum contagiosum, pubic lice, genital scabies, latent syphilis (RPR/RDT-Tp/VDRL-positive).	Neonatal Sexually Transmitted Infections, HIV and HBV positive patients should not be included.
Asymptomatic partner (AP)	Sexual partner (men or women) of an index case presenting for the partner treatment and no signs or symptoms of any Sexually Transmitted Infections detected on history or examination.	
STI episode	An episode is the beginning to the end of an event. In that case, the event is an STI syndrome.	An STI episode may be new, recurrent or persistent. This refers to an STI case that has not yet received treatment or a case that has received treatment, was compliant and is cured.

Microbiological surveillance

Information obtained from the STI clinical surveillance may be augmented with periodic and targeted microbiological surveys in order to determine the aetiology of syndromes, antimicrobial sensitivity patterns and temporal changes thereof.

5.2.3 Assessment of aetiology of infection

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

5.2.4 Antimicrobial resistance monitoring

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

- It is recommended that these should be conducted periodically every 3 to 5 years;
- In Member States where rates of chancroid are high, studies to assess antimicrobial resistance in H. ducreyi may be performed with the assistance of a specialised reference laboratory.

5.2.5 Special studies

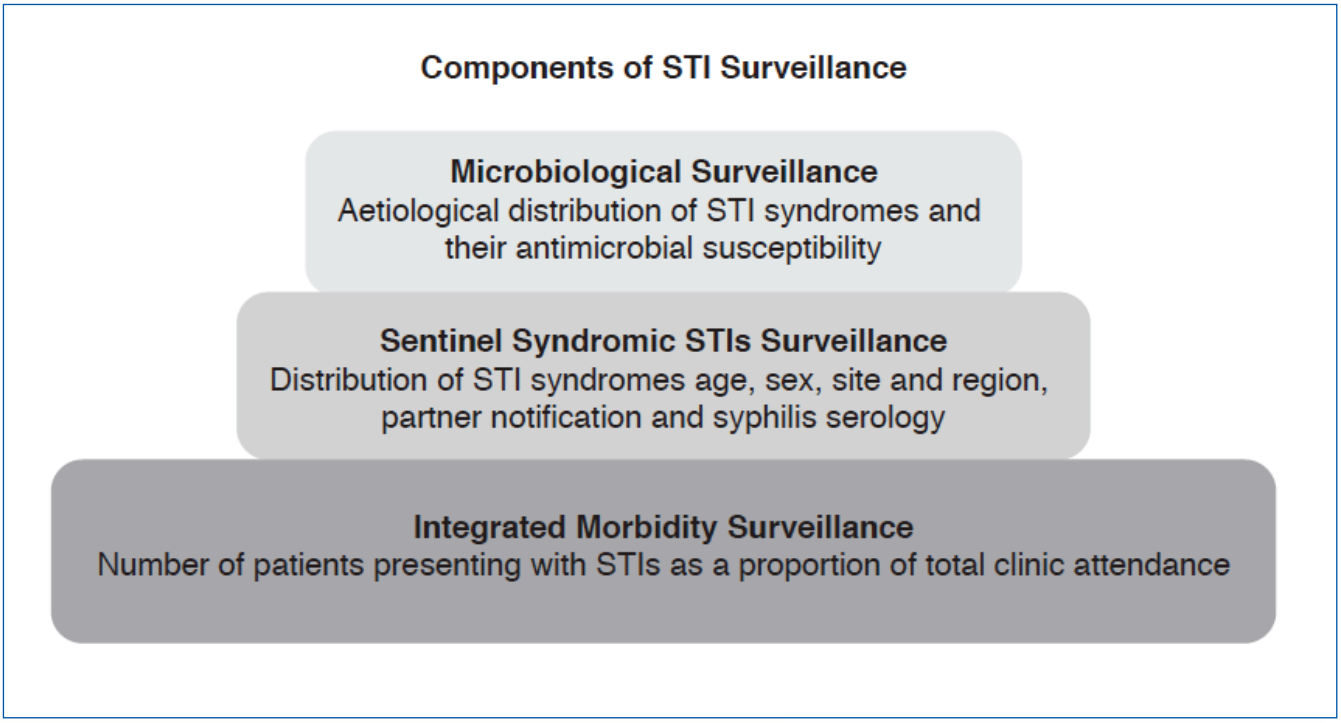
Periodically, STI programmes may perform special studies to address important STI surveillance issues that are not part of routine case reporting or prevalence assessments. Examples may include assessments of quality of care using mystery clients, or measuring incidence and prevalence of STI-related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

These studies can include estimation of the burden attributable to asymptomatic STIs, investigations for outbreaks of particular infections, such as syphilis in certain populations and geographical settings. In many Member States, STI patients seek to obtain medication directly from pharmacies or the informal private sector (such as traditional healers) without first seeking diagnosis from a service provider at the health facility.

This practice can be a source of a substantial amount of underreporting, and special studies may be needed to determine its extent and the magnitude of the underestimate.The core components discussed above are complementary activities, and their utility differs for different aspects of STI control. The way in which each of these activities is performed depends on the existing surveillance infrastructure (particularly the extent to which laboratory testing is available for routine clinical care), and on the structure of systems that are in place for reporting other communicable diseases as part of integrated disease surveillance.

The state of the HIV epidemic in each Member State also has implications for activities and priorities for surveillance of Sexually Transmitted Infections.There exists no single model for a STI surveillance system that is ideal for all Member States. However, the types depicted in Figure 5.2 offer a framework for STI surveillance that can be adapted for use in most Member States.

Figure 5.2: A framework for sexually transmitted infections surveillance



6. MONITORING AND EVALUATION

6.1 Core indicators

In order to standardise and harmonise STI monitoring and evaluation in the region, it is recommended that all Member States report on the selected core indicators that can provide adequate and homogenous evidence for the periodic review of policies, guidelines and protocols within the SADC region. The list of core indicators is composed of five indicators in the following areas:

- Two indicators to assess STI disease (namely, urethral discharge and genital ulcers) burden and trends;
- One indicator to inform programme planning (prevalence of syphilis among antenatal clinic attendees); and
- Two indicators to inform programme management efforts (health worker training and syphilis screening at first antenatal clinic visit of pregnant women).

The list of core indicators was the outcome of an intensive consultation process, which involved participation of monitoring and evaluation experts from each Member State, as well as other partners. The selected core indicators represent a subset of indicators that are already being collected by Member States as part of their existing reporting systems. The indicators are based on internationally agreed standards (especially those developed by WHO).

The core list of indicators was agreed at the consensus-building meeting (held at Victoria Falls, Zimbabwe, in December, 2009), which was attended by delegates from 14 Member States. The development of these core indicators is a continuous process, and the list will undergo periodic review. As Member States gain experience in the collection of STI data, and as policy needs evolve, indicators may be modified, removed or added.

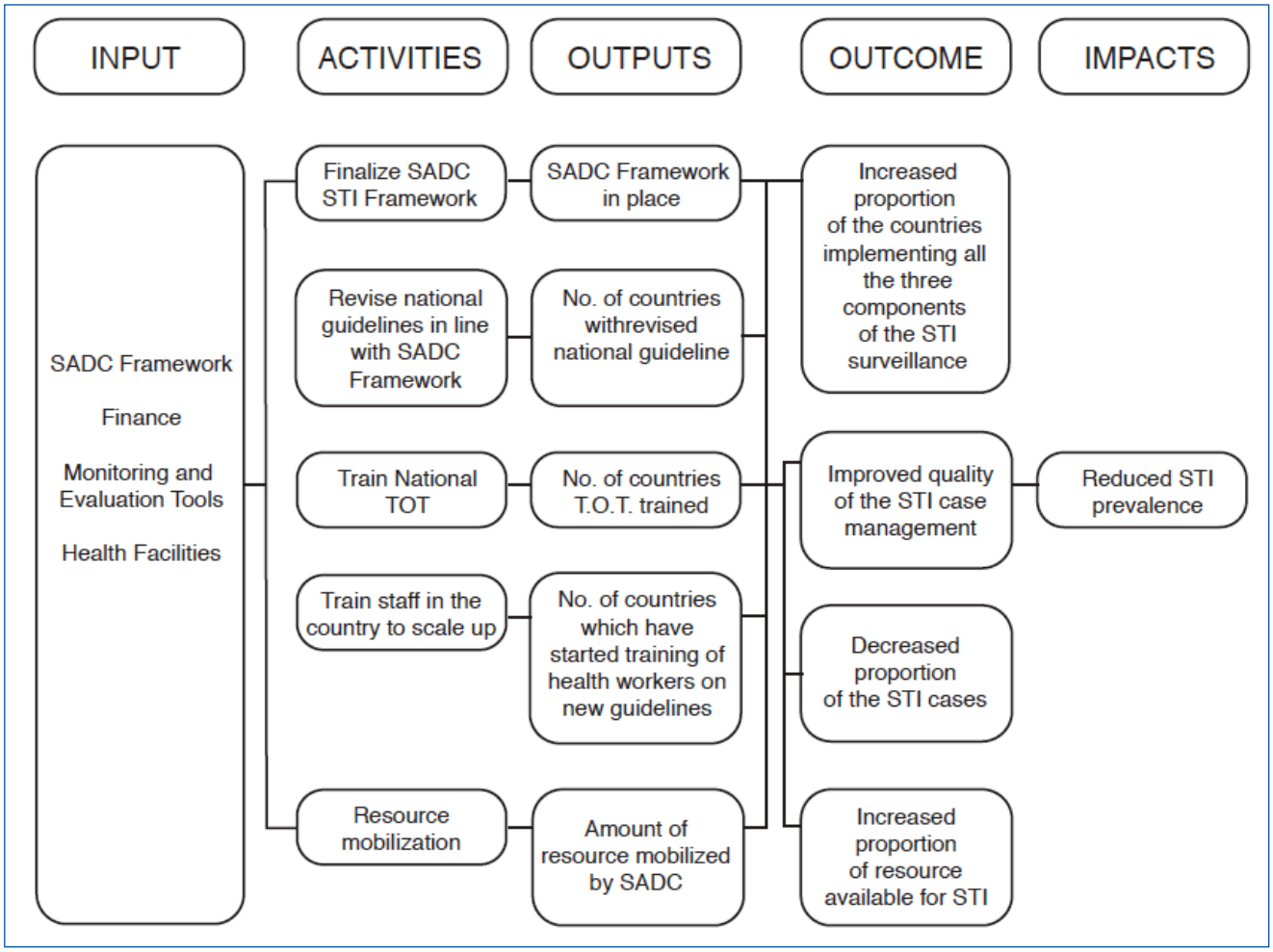
6.2 Logic model

The SADC STI Framework monitoring and evaluation logic model (Figure 6.1) was created to provide stakeholders with an overview of the activities and intended outcomes. The model enables stakeholders to work from a shared framework of the main activities, outputs and outcomes. It illuminates the logical links among the array of activities, including adapting current frameworks, enhanced STI surveillance, capacity building of service providers, and resource mobilisation for achieving the overall goal of reduced STI prevalence in the region.

Table 6.1: Indicator matrix for the SADC STI monitoring and evaluation core indicators

No.	Indicator	Denominator	Numerator	Source	Reporting frequency
1	Proportion of the health facilities with at least one trained health professional on STI syndromic management	All health facilities offering STI services in the previous calendar year	Health facilities with at least one healthcare worker trained on STI syndromic management	Routine programme monitoring system	Annually (end of April as the deadline)
2	Proportion of new cases of urethral discharge among reported STI cases	All reported new STI cases	All new reported urethral discharge cases	Routine programme monitoring system	Annually
3	Proportion of new cases of genital ulcers among reported STI cases	All reported new STI cases	All new reported genital ulcers	Routine programme monitoring system	Annually
4	Percentage of pregnant women attending antenatal care for the first time who are screened and treated for syphilis	Number of pregnant woman attending an antenatal clinic for the first time	Number of pregnant women attending the antenatal clinic for the first visit who are screened and treated for syphilis (for each screen, the patient is only counted once)	Routine antenatal clinic programme reports	Annually
5	Prevalence of syphilis among pregnant women attending antenatal clinics	Sample of the representative antenatal clinic pregnant women	Number of the sample of the representative antenatal clinic pregnant women who are RPR/ RDT-Tp reactive	Antenatal clinic sentinel surveillance	Two-yearly

Figure 6.1: STI Framework monitoring and evaluation logic model



7.Implementation Mechanisms for the Framework

The implementation mechanism defines the key stakeholders and their roles in the implementation of the Framework. Furthermore, it provides guidance on how the framework will be financed. Lastly, it identifies the critical indicators to be monitored to ensure that the framework is fully integrated in the work of the Member States.

To this end, this section is intended to map out the path on the domestication of the framework, including how it will be financed and monitored.

7.1 Stakeholder roles and responsibilities

The successful implementation of the STI Framework requires the involvement of all key stakeholders at both national and regional levels. To this end, it is important to provide an outline on their roles.

7.1.1 Member States

STI care is a part of the primary healthcare services in most Member States. Therefore, the implementation of the STI Framework must be in line with the integration required by the primary healthcare approach in national health system.

In most SADC Member States, STI control programmes are synergistically located within the HIV and AIDS directorate. To avoid duplication of activities, planning and implementing of STI strategies and interventions must be in line with the relevant provisions in the HIV and AIDS strategic framework.

- The SADC Health Ministers will oversee and monitor the implementation of this Framework.

- Member States shall take a lead role in ensuring that the STI Framework is integrated to the annual work plans of their national STI programmes.

- Member States shall ensure that national STIprogrammes involve various departments in the Ministries of Health and key stakeholders in the public and private sectors (for example, donors, WHO, partners, Private Sector, and training institutions) to identify their roles in the implementation of the various activities articulated in the Framework.

- Member States shall provide a programme structure for operationalising STI control and prevention activities at all levels.

- Member States shall assess the availability and quality of the essential elements of STI control, the strategies for delivering them, the systems to accommodate these strategies and the opportunities for strengthening and linkages.

- Member States shall facilitate strategic planning to identify and prioritise the most effective approaches based on STI prevalence and transmission dynamics, contextual factors, cost, cost-effectiveness, feasibility and sustainability.

- Member States shall develop training plans, training tools and training in the skills necessary to deliver the revised guidelines.

- Member States shall ensure a comprehensive monitoring and evaluation framework.

7.1.2 SADC Secretariat

The SADC Secretariat will coordinate the overall implementation and monitoring of these minimum standards on behalf of the Ministers of Health. Specific responsibilities will include:

- Advocating for implementation of the STI Framework in relation to the commitments made by Member States (such as the SADC Protocol on Health, and the Maputo Declaration);

- Facilitating skills transfer and sharing of good/innovative practices, benchmarking of Member States among each other and provide a platform of sharing of good practices;

- Coordinating partners for resources mobilisation and technical support in the region;

- Establishing an STI technical Group to oversee the implementation of the Framework

- Facilitating inter-country and cross-border STI prevention and control; and

- Coordinating regional training programmes on Sexually Transmitted Infections

7.1.3 Other stakeholders

Other stakeholders include UN Agencies, bilateral donors and development partners, local and international NGOs, community-based organisations, the private sector and research and training institutions. All are essential for the successful implementation of the Framework. Their roles will vary but will include:

- Supporting resource mobilisation to assist in implementing TB control activities.
- Assisting with inputs in harmonising the STI Framework
- Advocate for strengthening of STI prevention and control.
- Augmenting resources to ensure implementation of the Framework.
- Assist in disseminating best practices within the region.
- Provide additional human resources as needed to support implementation of Framework.

7.2 Financing mechanisms

Implementation of this Framework may require additional financial resource allocation by each Member State. Funding for the activities required to meet the minimum standards will be allocated within the national budget of each Member State, if these activities are not currently provided for in STI control budgets.

Member States shall ensure that:

- Areas that need additional financial resources are identified, with the participation of all relevant stakeholders, including UN agencies, donors, development partners, and NGOs.
- Each area that needs improvement is costed. Examples could include the costing of implementing the advocacy, communications and social mobilisation strategy, expansion of the laboratory network, and management information system
- National STI programmes receive endorsement from their Ministries of Health where additional finances are required.

7.3 Monitoring and evaluation

7.3.1 Role of Monitoring and Evaluation in Implementation of Framework for STIs

The harmonised surveillance framework for the prevention and control of Sexually Transmitted Infections (STIs) contains core indicators that, if successfully monitored, will show progress towards realization of regionally agreed on commitments for responding to Sexually Transmitted Infections (see annex IV for a list of core indicators, and the indicator logic model). Furthermore, monitoring levels and trends in the core indicators would objectively identify aspects of the intervention where progress is slow, thus, allowing identification of concrete solutions to the identified challenges. Thus, results from monitoring implementation of the STI framework will inform management decisions aimed at fine-tuning the response to STI at both the Member States and regional levels. This will in turn show progress that the region is making in the implementation of the SADC Protocol on Health as it relates to responding to communicable diseases in general and Sexually Transmitted Infections more specifically.

7.3.2 Monitoring and Evaluation at Member States Level

At the Member States level, the first thing that has to be done is domesticating the core indicators in national integrated surveillance systems. This means that Member States will revise their data collection tools to allow the collection of data on the core STI indicators that will have been domesticated into national M&E systems. The Member States will orient health service providers on how to collect data on the core indicators. Furthermore, the Member States will train data managers for the national health information systems on how to add these core indicators to their databases as well as building quality checks for these indicators.Thus, in summary Member States will:

- Domesticate core STI indicators in national M&E systems;
- Integrate the core STI indicators in the national database for health;
- Collect and validate data on the core STI indicators;
- Analyse the data to show levels, patterns and trends for each of the core indicators; and
- Prepare national STI reports

7.3.3 Monitoring and Evaluation at the SADC Regional Level

At the SADC regional level, the interest is tracking implementation progress as measured by the levels and trends of the core indicators at the regional level. Thus, at the regional level the SADC Secretariat will prepare annual analytical reports for Sexually Transmitted Infections that show the extent of progress towards regional commitments and targets. These reports will be used to identify aspects of the response to Sexually Transmitted Infections where progress is slow.

7.3.4 Reporting Mechanisms

The following are the steps that are followed in preparing and reporting on the STI core indicators:

Member States will prepare annual national STI reports based on data on the core set of indicators. The reports will be covering the period January – December every year. These reports will be shared with the SADC Secretariat by 30 April every year.

- The data contained in the reports will be validated at the Member States level before the reports are submitted to the SADC Secretariat;
- The SADC Secretariat will then compile a regional STI report and share the draft reports with officials responsible for Sexually Transmitted Infections within Member States' Ministries of Health and experts from partner organisations by end of June every year for review and comments;
- Member States programme managers responsible for Sexually Transmitted Infections will provide their comments on the draft regional report by end of July every year;
- The SADC Secretariat will incorporate the comments and present the regional report to senior officials from Ministries of Health for review and recommendation to Ministers for approval;
- The Draft report will then be presented to Ministers of Health and Ministers responsible for HIV and AIDS for approval at their annual meeting

The Sexually Transmitted Infection reports that are prepared and submitted by Member States to the SADC Secretariat also describe challenges that Member States are experiencing in the implementation of the Sexually Transmitted Infection framework.

APPENDICES

Annex I: SADC Sexually Transmitted Infection Quality of Care Assessment Tool

Instructions: This instrument requires a review of site records, observation and interview with health providers on site. Circlethe best response or fill in your own response on the lines provided.

Health Facility Name:…… Date of Visit:……/…../……(day / month / year)

Telephone:…….Fax: …… Time of Visit:……Hour:……..Min

Country:……..…… Province/District:……

PHC/STI Supervisor:……(Name) ……(Title)

Person conducting assessment:……(Name) ……(Title)

ACCESSIBILITY

1. Number of professionals in this facility and cadre	F	M	T
a.			
b.			
c.			
d.			
TOTAL			

2. Does this facility offer STI treatment during all hours of operation? YES NO

3. Does this facility offer STI treatment after 5pm or on weekends? YES NO

4. How many consultation rooms are there in this facility? _____

5. Does this facility use all consultation rooms to treat clients with Sexually Transmitted Infections? YES NO

6. If no, how many consultation rooms are used for STI care? _____
   Please observe whether this facility offers all STI consultation in private.

7. Can consultations be observed or heard by other clients and providers? YES NO

Review caseload book or register and record information for the last month on:

	Female	Male	Total
8. Number of adult clients (15 years and above)			
9. Number of adult clients with Sexually Transmitted Infections			
10. Number of family planning clients			
11. Number of family planning clients with Sexually Transmitted Infections			
12. Number of antenatal clients			
13. Number of antenatal clients with Sexually Transmitted Infections			
14. Total number of clients seen			


15. Total number of clients with STI seen

SAFE EXAMINATION

16. Which of the following equipment is available for consultations?

	Available?		# Working
a. Examination couch	YES	NO	
b. Examination light	YES	NO	
c. Sterile specula	YES	NO	
d. Examination gloves	YES	NO	
e. Pap smear kits	YES	NO	
f. Autoclave (sterilizer)	YES	NO	

PROVISION OF SAFE TREATMENT

17. Are speculum examinations conducted on all women with Sexually Transmitted Infections? YES NO

18. Does the facility have disposable specula? YES NO

19. If no, how does the facility sterilize specula? _____

20. Are there current STI Syndromic Management Guidelines in this facility? YES NO

21. Are STI Syndromic Management Guidelines in all consultation rooms? YES NO

22. Ask, Which clients with Sexually Transmitted Infections would you refer for treatment?

_____

23. How many STI clients were offered HIV testing at this facility last month? _____

24. How many STI clients accepted HIV testing at this facility for the same period? _____

SYPHYLIS SCREENING

25. Is syphilis RPR/RDT-Tp/VDRL testing done on site in this facility? YES NO

26. If no, ask, how long do you usually wait for the RPR/RDT-Tp/VDRL test results? _____

27. Is blood taken for RPR/VDRL testing from all STI clients? YES NO

28. If no, for which conditions do STI clients have blood taken for RPR/RDT-Tp/VDRL tests?

a. _____ b _____

c. _____ d. _____

CONDOMS

29. Do you usually have male and female condoms in stock? YES NO

30. If yes, has there been stock-outs for female condoms in the past month? YES NO

31. If yes, has there been stock-outs for male condoms in the past month? YES NO

32. Are STI clients shown how to use a condom in this facility? YES NO

33. Is there a male condom demonstration model available for male condom demonstrations in this facility? YES NO

34. Is there a female condom demonstration model available for female condom demonstrations in this facility? YES NO

35. If no, how do you ensure that a client knows how to use condoms? YES NO

For items 36 to 48, you will need to review the educational materials and facility records.

PATIENT EDUCATION

36. Are there individual client education materials about STI prevention and treatment available in this facility? YES NO

37. Are there individual client education materials about HIV prevention and treatment available in this facility? YES NO

38. Are these educational materials written in vernacular languages? YES NO

39. Are there appropriate educational materials for people with disabilities? YES NO

40. Are there educational materials targeting men and women as distinct groups? YES NO

PARTNER NOTIFICATION

41. Are partner notification tools available in all examination rooms? YES NO

42. Are these tools written in vernacular language? YES NO

43. How many partner notifications were issued last month? _____

44. How many partners came for treatment in the last month? _____

ANTENATAL SCREENING AND STI TREATMENT

45. Is syphilis screening done on all pregnant clients who attend antenatal care for the first time? YES NO

46. How many first time antenatal clients were seen last month? _____

47. How many pregnant women tested positive for syphilis? _____

48. How many partners of pregnant syphilis positive women came in for treatment last month? _____

STAFF COMPETENCIES

	F	M	T
49. Number of professional nurses working at this clinic?			
50. Number of clinical officers working at this clinic?			
51. Number of medical doctors working at this clinic?			
52. Number of health professionals formally trained in syndromic management of Sexually Transmitted Infections?			
53. Number of health professionals formally trained in HIV AND AIDS counselling?			
54. How many health professionals are working in the facility today?			
55. If you had a problem related to STI management, who would you consult?			

STI MEDICINES

Visit the pharmacy or drug store room. Ask the dispenser about the STI medicines and tick the appropriate response. If yes ticked for any item, fill in Reasons column.


	Medicine (Generic name, dose)	Currently in Stock?		Stock-out during the last month?		Reasons for stock-out
		YES	NO	YES	NO	
56						
57						
58						
59						
60						

61. Use the client cards, daily register or pharmacy records to obtain the information requested below for the 10 most recent clients treated for an STI. Use the codes provided for each STI syndrome.

STI Client	Syndrome Code	What type of medicines did the patient receive? State medicine, dosage and duration of treatment prescribed.	Correct Medicine		Correct Dosage		Correct Frequency & Duration		RPR/RDT-Tp Test Requested		HIV Testing Offered Offered	
			Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
1.												
2.												
3.												
4.												
5.												
6.												
7.												
8.												
9.												
10.												

Syndromic Codes:

1 – Urethral discharge Syndrome (UDS) 2 – Vaginal Discharge Syndrome (VDS) 3 – Lower Abdominal Pain in women (LAP)
4 – Genital Ulcer Syndrome (GUS) 5 – Scrotal swelling (SSS) 6 – Inguinal bubo 7 – Neonatal Conjunctivitis
8 – Other STI (specify)

HEALTH PROVIDER INTERVIEW

Ask the health professional the following questions and check answer against the STI syndromic management guidelines.

62. What drugs (type, dosage, frequency and duration) would you use to treat a man with urethral discharge?

◯ correct ◯ incorrect

63. What drugs (type, dosage, frequency and duration) would you use to treat a woman with a vaginal discharge?

◯ correct ◯ incorrect

64. What drugs (type, dosage, frequency and duration) would you use to treat a man or woman with a genital ulcer?

◯ correct ◯ incorrect

65. What drugs (type, dosage, frequency and duration) would you use to treat a pregnant woman with vaginal discharge?

◯ correct ◯ incorrect

66. If Doxycycline was out of stock, what would you use in its place for to treat discharges?

COMMENTS

67. What are the problems that affect the delivery of quality STI care in this facility?

68. What recommendations do you have for improving the situation?

69. What is the plan of action resulting from this visit?

70. Additional comments:

Annex II: Sample client case record form

Sample Client Case Record Form (to adapt)

Client ID: _____ Name : _____ Address: _____	Date: __ / __ / _____ (dd/mm/yyyy) 1st clinic visit? Yes No	Sex: Female Male Age: __ __ years LMP(female): __(dd/mm/yyyy)
Type of clinic visit	◯ New patient ◯ Follow-up visit	
Referred by	◯ Self ◯ Partner ◯ Other	Notes:
Presenting Symptoms (as described by patient)		Describe: duration, location
Past history	◯ Past Sexually Transmitted Infections ◯ Other: medical/surgical/Obs/Gynae ◯ Not significant	Notes:

Examination findings

- ◯ Vaginal discharge
- ◯ Cervical discharge or very red cervix
- ◯ Genital ulcer
- ◯ Lower abdominal tenderness (female)
- ◯ Cervical motion tenderness
- ◯ Urethral discharge (male)
- ◯ Ano-rectal discharge
- ◯ Genital Warts
- None
- Other

Notes:

Syndrome diagnosis

- ◯ VDS
- ◯ LAP
- ◯ UDS
- ◯ SSS
- ◯ GUS
- ◯ Inguinal Bubo
- ◯ Other STI
- ◯ None

Notes:

Treatment Provided

Notes:


Education/ Counselling	◯ HIV testing counselling discussed	Notes:
	◯ Condoms demonstrated	
	◯ Condoms provided	
	◯ IEC materials provided	
	◯ Partner treatment discussed	
	◯ Male circumcision discussed	
	◯ Cervical cancer screening discussed	
	◯ IDU harm reduction discussed	
Tests done	◯ Syphilis RPR/RDT-Tp/VDRL test	Notes:
	◯ HTC	
	◯ Pap smear/VIA	
	◯ Other	
Referrals Select all that apply	◯ Surgical	Notes:
	◯ Medical	
	◯ Other	
Plan and Comments	Date for next visit _____	Comments:

What recommendations do you have for improving the situation?

_____

_____

_____

What is the plan of action resulting from this visit?

_____

_____

_____

Annex III: STI clinical surveillance procedures and tools

Each health facility will report STI cases and related information using the "site daily tally sheet" and the "facility monthly summary sheet". An "STI surveillance archive folder" will be maintained at each facility to archive back-up copies of site daily tally sheets and monthly summary sheets.

The site daily tally sheet
A site daily tally sheet is a basic daily data collection tool that is used at points or sites in the facility where STI patients are managed. It is used to collect information on specific STI data elements for both males and females. These are:

- New episodes of STI syndromes;
- The number of individuals presenting with a new STI episode (headcount);
- The age distribution of new STI episodes;
- The number of asymptomatic partners presenting at the sentinel site;
- The number of syphilis screening tests done;
- Positive test results from syphilis screening;
- The number of partner notification slips issued at the sentinel site;
- The number of partner notification slips received at the sentinel site;
- Clinical treatment failure referrals;
- Referrals due to reasons other than clinical treatment failure.

Information on all data elements obtained from the routinely -used health facility records (such as patient card, laboratory request and result record book, referral records, partner notification slip, and antenatal clinic register) should be entered daily on a tally sheet and summarised onto a facility monthly summary form at the end of each calendar month. This should be an ongoing process in much the same way as other routine data:;

- Sections of the tally sheet should be filled correctly after appropriate diagnostic or treatment decisions have been made by appropriately trained personnel;

- The STI surveillance daily tally sheet is not a replacement for the "outpatient report form". It is an additional data collection tool, which should be used independent of the "out patient report form".

Structure of the tally sheet
The tally sheet is divided into four main sections that capture information on the data elements listed above. Data is entered onto the tally sheet by striking off a zero in appropriate boxes. The sections are reviewed as follows:

Section 1: Head count and new episodes
This section is used to count the number of new episodes of STI syndromes, asymptomatic partners treated and the number of people who present with STI syndromes. The number of people who present with new STI episodes is often different from the number of new episodes themselves, because one person may present with more than one STI syndrome at a given time.

- Care should be taken to capture each individual with a new episode only once in the head count row, but to capture all the syndromes present at the time in the appropriate rows. In both cases, care should be taken to tally in the appropriate age group of each patient;

- A patient who presents at the facility may be ascertained to either have a new or an old episode of the syndrome, based on diagnostic conclusions made after history taking and a thorough examination by the service provider;

- If a patient presents at the health facility with more than one syndrome, each syndrome should be considered a separate episode;

- Information on this section is entered by gender (male and female). Individuals or syndromes that are seen for follow-up need not be captured in this section.

Section 2: Screening for syphilis

This section is used to capture the number of syphilis screening tests done and the number of those that return positive. It is classified into 3 categories: males, non-pregnant females and pregnant females.

- The criteria for syphilis screening should follow the procedures set out by the national STI management guide lines of the Member State's Ministry of Health.

Section 3: Partner notification slips

In this section, all partner notification slips issued or received from STI clients are entered.

- This section is not used to count the number of people who receive or return partner notification slips. It is used for counting the number of slips issued or received from clients;

- Slips received are counted regardless of whether they were originally issued at the particular health centre or at another health centre. This section is categorised by gender only.

Section 4: Referrals for clinical care

This section is used to count the number of people that are referred to another level of care or to a doctor in the same health centre either because of clinical treatment failure or for other reasons (for example, complicated case, interaction with other treatment or severe episode).

The same syndromes and patients should be entered in the appropriate boxes in section 1 if the episode so referred is new.

Opening and closing of a tally sheet

- The first tally sheet in a facility can be opened on any day of the month but the starting date and consultation room identification need to be filled in for each sheet;

- Once a box of zeros corresponding to an indicator is full, the sheet must be closed, irrespective of whether the other boxes have been filled in or not. This will prevent the use of more than one tally sheet in a consulting room at any given time;

- Before closing a sheet, the totals for each data element are entered in the box at the end of each row or column on the sheet, as well as the closing date of sheet;

- As soon as a sheet is closed, it must be put into the "STI surveillance archive folder". On the last day of the month the current sheet in all consulting rooms must be closed whether they are full or not. A new sheet is opened on the first day of the next month.

Collating and archiving of data sheets

- An "STI surveillance archive folder" should be maintained for each consulting room where STI cases are man aged. It can be a thick ring folder with separators. Separators must be labelled with specific identifiers for each room, and an extra separator should be included for the monthly summary sheets;

- At the end of each month the totals on each tally sheet used during the month must be added up for each consultation room in the folder and must then be collated for the entire facility;

- The information collated for the whole facility must be transferred onto a monthly summary sheet at the end of the month, and a back-up copy of the summary sheet should be put in the appropriate separator in the archive folder;

- A flat folder containing an adequate supply of blank tally sheets to cover at least 6 months should be kept in the facility at all times.

Facility monthly summary sheet

The "facility monthly summary sheet" is a monthly summary sheet used at the facility for monthly STI surveillance reporting.

Data collected on all tally sheets used in all the consulting rooms (sites) in a particular facility for the month, as well as the STI tracer items form, are collated and then transferred onto the facility monthly summary sheet at the end of each month. The data form is designed to collate total numbers of:

- STI patients treated by age group;
- STI clinical syndromes among men and women;
- Syphilis screening tests performed and the number of positive results;
- Partner notification slips issued and received;
- STI patients referred for various reasons; and
- The availability of STI drugs, partner slips and condoms.

The monthly summary sheet has 5 sections (unlike the daily tally sheet which has 4 sections only). The first 4 sections of the monthly summary sheet are similar to those on the daily tally sheet. Section 5 is for tracking the availability of STI drugs, partner slips and condoms. These data are not available on the daily tally sheet and should be collected from drug tracking forms from the pharmacy or dispensary at the health centre.

- All data boxes should be fully completed even when the value is zero. Where necessary, comments can be made in the spaces provided;
- Data collation onto the summary form is the responsibility of the personnel in charge of data management at the facility (usually a sister or matron) who must also make sure that the summary reaches the next level for timely onward transmission.

Data flow and timelines

- At the end of the reporting month, the personnel responsible for data collation at each facility should summa rise data from the daily tally sheets onto the facility monthly summary sheet;
- The facility monthly summary sheet, together with other primary healthcare routine data, will be forwarded to the appropriate levels higher up in the chain (Member State-specific structures);
- The deadline for submission of data to the various levels will be similar to those laid down for other data ema nating from primary heathcare facilities within the district or province;
- A back-up copy of the monthly summary sheets should be archived in the STI surveillance archive folder at the health centre;
- Heads of facilities should ensure that the monthly summary sheets are ready for collection and/or submission by the agreed deadline.


Data quality assurance

- Member State-specific arrangements for the supply of daily tally sheets and monthly summary sheets should be made;
- Heads of facilities are advised to keep adequate stocks at all times and to place stock orders well ahead of time to prevent stock-outs.;
- Health facility staff should be trained to use data reporting formats. Prior to forwarding the completed tally sheets to the next level, the person responsible for reporting should ensure their completeness and accuracy;
- Data quality can be improved through the use of computerised systems that have built-in error checks and that can generate standard reports to highlight missing data and frequency distributions;
- A thorough analysis of the clinical sentinel surveillance data together with other routine STI data elements should be conducted and a report should be produced on a regular basis.

SEXUALLY TRANSMITTED INFECTIONS CLINICAL SURVEILLANCE SITE DAILY SUMMARY SHEET

Site Name: _____ Facility Name: _____ District: _____Sheet opened by: _____Date sheet opened: _____Date sheet closed:_____

Section 1: Head Count and New Episodes of STI Syndromes (Only one tally per patient for headcount but as many tallies as are appropriate for syndromes)

	Code	AGE-GROUPS (years)								
FEMALES		≤9	10-14	15-19	20-24	25-29	30-34	35-39	40-49	≥50
Head Count – Females (New episodes only)	HCF	000 000 000 000	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000
Head Count Totals										
Vaginal Discharge Syndrome	VDS	000 000	00000 00000	00000 00000	00000 00000 00000 00000	00000 00000 00000 00000 00000	00000 00000 00000 00000	00000 00000	00000 00000	00000 00000
Lower Abdominal Pain	LAP	000	00000	00000	00000 00000	00000 00000 00000	00000 00000	00000	00000	00000
Genital Ulcer Syndrome	GUSF	000	00000	00000	00000 00000	00000 00000 00000	00000 00000	00000	00000	00000
Genital Blisters without Ulcers	GBF	000	00000	00000	00000 00000	00000 00000 00000	00000 00000	00000	00000	00000
Genital Warts	GWF	000	00000	00000	00000 00000	00000 00000 00000	00000 00000	00000	00000	00000
Other Sexually Transmitted Infections	OF	000	00000	00000	00000 00000	00000 00000 00000	00000 00000	00000	00000	00000
Asymptomatic Partners-Female	APF	000	00000	00000	00000 00000	00000 00000 00000	00000 00000	00000	00000	00000
MALES										
Head Count - Males (New episodes only)	HCM	000 000 000 000	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000
Head Count Totals										

Urethral Discharge Syndrome	UDS	000 000		00000 00000		00000 00000		00000 00000 00000 00000		00000 00000 00000 00000 00000 00000		00000 00000 00000 00000 00000		00000 00000		00000 00000		00000 00000					
Genital Ulcer Syndrome	GUSM	000		00000		00000		00000 00000		00000 00000 00000		00000 00000 00000		00000		00000		00000					
Genital Blisters without Ulcers	GBM	000		00000		00000		00000 00000		00000 00000 00000		00000 00000 00000		00000		00000		00000					
Genital Warts	GWM	000		00000		00000		00000 00000		00000 00000 00000		00000 00000 00000		00000		00000		00000					
Scrotal Swelling Syndrome	SSS	000		00000		00000		00000 00000		00000 00000 00000		00000 00000 00000		00000		00000		00000					
Other Sexually Transmitted Infections	OM	000		00000		00000		00000 00000		00000 00000 00000		00000 00000 00000		00000		00000		00000					
Asymptomatic Partners-Males	APM	000		00000		00000		00000 00000		00000 00000 00000		00000 00000 00000		00000		00000		00000					

Section 2: Screening for Syphilis

	Pregnant Females		Non-pregnant Females		Males	
RPR/RDT-Tp/VDRL tests done	00000 00000 00000 00000 00000 00000 00000 00000		00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000		00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000	
Positive RPR/RDT-Tp/VDRL results	00000 00000 00000 00000		00000 00000 00000 00000 00000 00000 00000		00000 00000 00000 00000 00000 00000 00000	

Section 3: Partner Notification Slips

	Females		Males	
Partner slips issued	00000 00000		00000 00000	
Partner slips received	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000		00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000	

Section 4: Referrals for Clinical Care (new or persistent episodes)

	Pregnant Females		Non-pregnant Females		Males	
Ref. for clinical treatment failure	00000 00000 00000 00000 00000		00000 00000 00000 00000 00000 00000		00000 00000 00000 00000 00000 00000 00000	
Ref. for other reasons	00000 00000 00000 00000 00000		00000 00000 00000 00000 00000 00000		00000 00000 00000 00000 00000 00000 00000	

SEXUALLY TRANSMITTED INFECTIONS CLINICAL SURVEILLANCE FACILITY MONTHLY SUMMARY SHEET

Reporting Period (mm/yy):_____ Beginning of Reporting Period (dd/mm/yy): _____ End of Reporting Period (dd/mm/yy): _____

Facility Name: _____District: _____Contact Person: _____Contact number(s):_____

Section 1: Head Count and New Episodes of STI Syndromes (Only one tally per patient for headcount but as many tallies as are appropriate for syndromes)

	Code	AGE-GROUPS (years)								
FEMALES		≤9	10-14	15-19	20-24	25-29	30-34	35-39	40-49	≥50
Head Count Totals - Females (New episodes only)	HCF									
Vaginal Discharge Syndrome	VDS									
Lower Abdominal Pain	LAP									
Genital Ulcer Syndrome	GUSF									
Genital Blisters without Ulcers	GBF									
Genital Warts	GWF									
Other Sexually Transmitted Infections	OF									
Asymptomatic Partners-Female	APF									
MALES										
Head Count Totals - Males (New episodes only)	HCM									
Urethral Discharge Syndrome	UDS									
Genital Ulcer Syndrome	GUSM									
Genital Blisters without Ulcers	GBM									
Genital Warts	GWM									
Scrotal Swelling Syndrome	SSS									
Other Sexually Transmitted Infections	OM									
Asymptomatic Partners-Males	APM									

Sections 2 and 3: Screening for Syphilis and Partner Notification Slips

Screening for Syphilis	Pregnant Females	Non Pregnant Females	Males		Partner Notification	Females	Males
RPR/RDT-Tp/VDRL tests done					Partner slips issued		
Positive RPR/RDT-Tp/VDRL results					Partner slips received		

Section 4: Referrals for Clinical Care (new or persistent episodes)

	Pregnant Females	Non-pregnant Females	Males
Ref. for clinical treatment failure			
Ref. for other reasons			

COMMENTS:

Section 5: stock-outs

Cefixime	Metronidazole	Azithromycin	Doxycycline	Erythromycin	Benzathine penicillin	Ceftriaxone	Partner slips	Male Condoms	Female Condoms

Date received Validated: Y N Validated by/sign: Date Captured: Captured by/sign:

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