



WORLD HEALTH ORGANIZATION
REGIONAL OFFICE FOR THE WESTERN PACIFIC



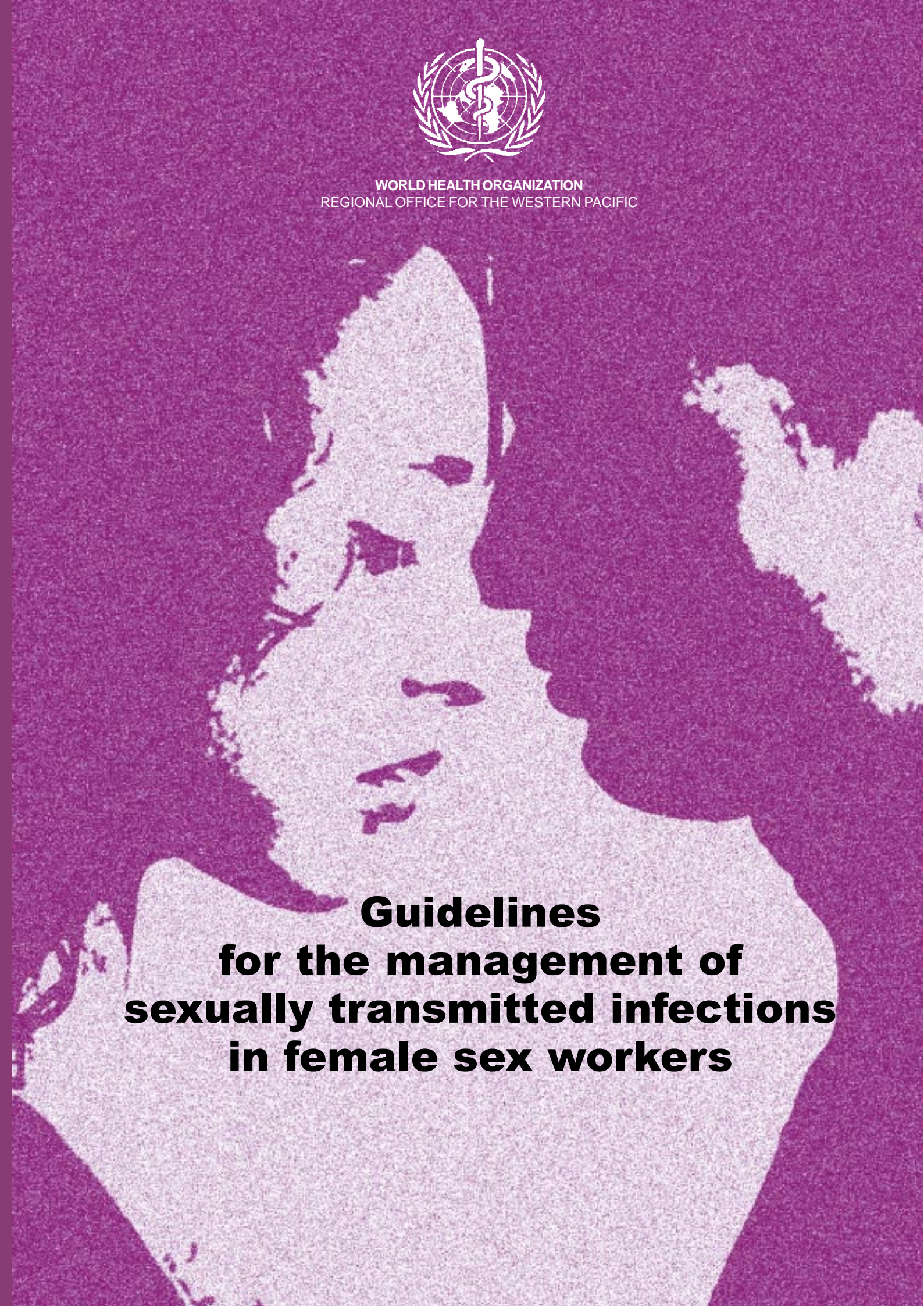
WORLD HEALTH ORGANIZATION

Regional Office for the Western Pacific
STI, HIV and AIDS Focus
United Nations Avenue
(P.O. Box 2932)
1000 Manila, Philippines

Fax: (632) 521-1036, 526-0279, 526-0362
Tel: (632) 528-8001

E-mail: HSI@wpro.who.int
Web site: www.wpro.who.int

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**Guidelines
for the management of
sexually transmitted infections
in female sex workers**



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Preface

HIV/AIDS was first detected in Asia in the early to mid-1980s. Since then, more than six million people in the region have become infected. In the year 2000 alone, it is estimated that more than 500 000 died of AIDS in Asia - about 1500 a day. Estimations put the number of curable sexually transmitted infections (STIs) in the region at over 30 million cases every year (WHO Western Pacific Regional Office estimations).

Women are particularly vulnerable to STIs because, compared with men, they are less empowered to negotiate safer sexual activity with their partners, they often remain asymptomatic, and serious complications of STIs occur more commonly in women.

The consequences of such complications not only affect the women concerned, but can also affect their newborn infants.

STI clinics have a special role to play in reducing STIs, including HIV/AIDS. However, vulnerable women in general have difficulty in accessing health care, especially STI care, due to such factors as moralistic and judgemental attitudes among health workers, services insensitive to women's needs, and, in many cases, poverty. Female sex workers (FSW), despite being at higher risk of acquiring and transmitting STIs, face additional barriers such as discrimination and their own fear of being penalized for their illegal profession. Undoubtedly, there is a great need to provide high quality, acceptable and accessible STI services for these marginalized women.

Increasing awareness of these issues has led to efforts being made to provide better STI and reproductive health services for FSW in Cambodia, China and Viet Nam. Steps have also been taken to develop STI services for FSW in Fiji, Mongolia and the Philippines. Based on the experiences of these pilot projects and programmes, these guidelines have been developed to provide appropriate technical guidance for the provision of clinical and social services for female sex workers.

The development of these guidelines was made possible through collaboration between WHO Headquarters (Department of Women's Health), and two units in the WHO Western Pacific Regional Office (the Sexually Transmitted Infections, Including HIV/AIDS Focus and the Reproductive Health Focus). That collaboration enabled a more comprehensive approach to be taken to providing services to female sex workers, the women most in need of a supportive environment for their health.

Acknowledgements

The Western Pacific Regional Office of the World Health Organization would like to thank the country and agency experts who reviewed these guidelines, with particular thanks to Dr. Ahmed Latif and Dr. Jamie Uhrig for their contributions.

Abbreviations

AIDS	acquired immunodeficiency syndrome
DNA	deoxyribonucleic acid
ELISA	enzyme-linked immunosorbent assay
FSW	female sex workers
FTA-Abs	flourescent treponemal antibody absorption test
HIV	human immunodeficiency virus
HSV	herpes simplex virus
KOH	potassium hydroxide
LCR	ligase chain reaction
LE	leukocyte esterase
MHA-TP	microhaemagglutination assay
PCR	polymerase chain reaction
RNA	ribonucleic acid
RPR	rapid plasma reagin
STI	sexually transmitted infection(s)
TPHA	<i>Treponema pallidum</i> haemagglutination assay

The World Health Organization recommends that the term 'sexually transmitted disease (STD)' be replaced by the term 'sexually transmitted infection (STI)'. The term sexually transmitted infections has been adopted as it better incorporates asymptomatic infections. In addition, the term has been adopted by a wide range of scientific societies and publications.

Reproductive tract infections encompass three main groups of infection, particularly in women, and sometimes in men. These groups are endogenous infections in the female genital tract (e.g. candidiasis and bacterial vaginosis); iatrogenic infections that may be acquired through non-sterile medical, personal or cultural practices; and classical STI. Currently, research is being conducted to better understand the determinants of endogenous infections. They are not primarily sexually transmitted; thus, clinical and public health actions recommended for STI may not apply to them. Given the current state of knowledge and understanding of these infections, treatment of partners is not recommended as routine public health practice. Reassurance and patient education are critical with regard to the nature of endogenous infections.

(From *WHO guidelines for the management of sexually transmitted infections*. WHO/HIV_AIDS/2001.01 WHO/RHR/01.10)

Introduction

Sexually transmitted infections (STIs) are infectious diseases that are transmitted from person to person during sexual contact, not necessarily vaginal intercourse. A large number of bacteria, viruses, fungi and other organisms may be sexually transmissible and may result in disease. Most bacterial, fungal and parasitic infections can be cured with antimicrobial agents. On the other hand, most viral infections cannot be cured. Antiviral drugs can sometimes contain the progression or effects of viral infections, although such treatments are often expensive, are inaccessible to many individuals, and may have substantial side effects.

Persons with sexually transmitted infections are infectious to their sexual partners even though they may have no symptoms or signs of infection. In fact, many people - men and women - have STIs without symptoms or signs, although they can develop serious complications.

STIs are a public health problem because of their potential to cause serious complications such as infertility, chronic disability and death in men, women and children. STIs can affect the foetus, neonate and infant, resulting in eye infection, blindness and pneumonia. The public health importance of STIs has taken on an even greater dimension with the advent of human immunodeficiency virus (HIV) infection. HIV infection is sexually transmissible, is not curable and leads to the acquired immunodeficiency syndrome (AIDS).

STIs (including HIV) are common among individuals who practice high-risk sexual behaviour.

Sexual partners of individuals with high-risk sexual behaviour (e.g. partners of men having unprotected sex with sex workers) are also at higher risk of STI, even though they may not practice high-risk behaviour themselves.

High-risk sexual behaviour is facilitated by a number of factors.

Higher STI rates may be observed among individuals who find themselves in high risk situations:

Persons with sexually transmitted infections are infectious to their sexual partners even though they may have no symptoms or signs of infection.

MODES OF BEHAVIOUR ASSOCIATED WITH STI ACQUISITION AND TRANSMISSION

- Having concurrent multiple sexual partners;
- Frequently changing sexual partners;
- Having unprotected sex with multiple partners;
- Having unprotected sex with sex workers.

FACTORS FACILITATING HIGH-RISK SEXUAL BEHAVIOUR, STI ACQUISITION AND TRANSMISSION

- Being far from usual social environment and/or family;
- Using alcohol and/or recreational drugs;
- Exchanging sex for money, material goods or drugs.

- Female and male sex workers;
- Clients of female or male sex workers - who are often young and mobile individuals (e.g. migrant workers, military, police).

The objective of STI control programmes in general is to reduce the incidence and prevalence of STIs and related complications. To achieve this objective, programmes aim to:

- (1) reduce the risk of STI transmission during sexual intercourse by use of condoms;
- (2) reduce the rate of sexual partner change through behaviour change;
- (3) reduce the period of infectiousness in persons infected by STI through early effective treatment; and
- (4) identify and treat partners.

To achieve these goals, it is recommended that STI management and control services should be available at all levels of the health infrastructure, in both the private and the public sectors.

The table below shows that STI infections are highly prevalent among female sex workers (FSW) and that chlamydial infection is the most common STI among sex workers in the Western Pacific Region, followed by gonorrhoea and syphilis.

Prevalence of sexually transmitted infections in female sex workers — selected countries

Country	Year of study (number tested)	Prevalence rate of infection (%) in selected studies			
		Gonorrhoea	Chlamydia	Syphilis	HIV
Australia	1991 (214)	14.50	8.90	5.60	0.46
Cambodia	1996 (427)	35.00	22.40	14.00	41.00
China	2000 (505)	37.80	58.60	9.50	10.30
Japan	1993 (824)	8.70	55.30	0.50	0.00
Malaysia	1998 (370)	14.30	26.50	13.60	3.00
Philippines	1999 (200)	15.00	35.00	4.00	-
Singapore	1995	0.44	2.19	-	-
Viet Nam	1996 (295)	3.30	5.60	40.00	7.00

(Ref. WHO Western Pacific Regional Office)

Female sex workers are often reluctant to attend regular clinics because they are often badly treated, stigmatized or rejected. However, since there is strong evidence that FSW and their clients are a key “core group” for STI and HIV sexual transmission in most of Asia, providing proper STI services to them, sometimes through STI clinics specializing in sex workers or employees of the “entertainment industry”, is an essential component of effective STI prevention and control. In both Cambodia and Thailand, the “100% Condom Use Programme” (100% CUP), implemented among establishment-based sex workers, has been successful in rapidly increasing condom use in high-risk situations and in reducing the transmission of STI, including HIV infection, among sex workers and the general population. This targeted intervention has had a dramatic effect on HIV transmission among the general population. One of the components of the 100% CUP is the regular STI check-up of entertainment establishment workers (see Annex 1).

These guidelines have been developed to provide guidance to public health specialists and health professionals on how to develop or improve STI services for female sex workers. One of the objectives is to support the expansion of the 100% CUP strategy, which has been shown to contribute to a reduction in STI and HIV transmission. The guidelines include guidance on clinical care, HIV counselling and testing, education for behaviour change, promoting the use of condoms and social services.

Female sex workers are often reluctant to attend regular clinics because they are often badly treated, stigmatized or rejected.

CHAPTER

1

Female sex workers in Asia

Female sex workers in Asia are a young population group. Their level of schooling and education is limited or has been curtailed by poverty and they have often entered the sex trade in order to support their families financially. The exact number of women engaged in commercial sex in the different countries of Asia is not known. However, over the last decade, many Asian countries have seen an increase in the size of their sex worker population and it has been noted that women are entering the sex trade at a younger age than previously.¹ A number of factors may explain this change:

- Difficult economic situation with increasing poverty, unemployment and migration.
- Urbanization, weakening of social network and family values.
- Introduction of market economies with increasing disparities and increasing aspiration to acquire material goods.

In most countries in Asia, although sex work is illegal, it appears to be tolerated. Though nationals makes up the larger proportion of persons involved in selling sex, migrant FSW from neighbouring countries are also often found.

Women who earn a living by selling sex only are known as direct sex workers, while those employed in entertainment establishments and who occasionally or regularly sell sex are known as the indirect sex workers. Within the direct sex worker group are freelance sex workers, recruiting their clients in the streets or by other methods (e.g. mobile phone, the Internet) and female sex workers who operate from brothels. Within the indirect sex worker group are those women who are employed in the entertainment industry, such as guest relations officers in hotels, female

Over the last decade, many Asian countries have seen an increase in the size of their sex worker population.

¹ *Sex Work in Asia*. Manila, WHO Western Pacific Regional Office 2001.

beer bar attendants, waitresses, karaoke lounge attendants, female attendees of roadside bars and cafes, nightclub employees, massage parlour employees, dancers, singers, beer promoters etc.

FSW belong to different socioeconomic strata. Access to health care for those who are more affluent is easy and is mainly through the private sector. However, sex workers in the lower socioeconomic groups and street-based sex workers have, in general, only limited access to care. They sometimes use the private or public sectors, but often will seek care in the informal sector or engage in self-treatment. Less frequently, FSW access care through the public-sector-based health facilities such as primary care clinics, the reproductive care clinics and, in some areas, special clinics. In some countries, like Cambodia and the Philippines, entertainment industry² employees need to be registered and undergo compulsory regular medical examinations.

² The entertainment industry comprises the hotel and hospitality industry, massage parlours, beer bars, nightclubs, karaoke bars, restaurants, cafes, and roadside food and drink outlets.

CHAPTER

2

Organization of STI services for FSW

In the formal public and private sectors, STI care can be available in the following facilities:

- Primary care clinics;
- Reproductive health centres;
- Family planning clinics;
- Antenatal clinics;
- Postnatal clinics;
- Maternal and child health clinics;
- Outpatient departments of district, regional and central hospitals;
- Workplace-based clinics.

Most of these health facilities are equipped to serve the general public, but are not ready to carry out management of STIs among female sex workers.

Based on reports from countries in the region, in most circumstances FSW prefer to seek STI care in three types of settings:

- (1) Private General Practitioner clinics;
- (2) Special clinics, such as social hygiene clinics and medical surveillance centres;
- (3) Private pharmacies or drug sellers.

The social hygiene clinic in the Philippines is an example of a special clinic aimed at reaching registered female sex workers, i.e., those who are in formal employment in the entertainment industry and require a health certificate. In some countries, such as the Philippines, “entertainment establishments” are required to have all their employees

In some countries, such as the Philippines, “entertainment establishments” are required to have all their employees screened for STI, and those found to be infected are barred from working until a certificate of good health is obtained.

(see footnote on page 2) screened for STI, and those found to be infected are barred from working until a certificate of good health is obtained.

FSW also often seek care in the informal sector, such as private pharmacies not formally accredited to provide treatment; traditional practitioner clinics; and drug vendors who sell antibiotics and other medications. Sometimes they obtain drugs from friends and peers.

Social hygiene clinics in the Philippines

The Philippines enjoys a low rate of HIV infection in the general population and high-risk groups. The country has more than 50 years experience in STI control programmes.

CASE STUDY

In many cities, the City Health Department runs social hygiene clinics, which provide STI screening¹ and treatment services for female sex workers. All female entertainment establishment workers are mandated by law to have medical examinations weekly and to carry a valid health certificate in order to continue working. The law applies to all women employed as waitresses, guest relations officers, bar attendants, singers, dancers, and masseuses. Social hygiene clinics have been now in existence for several decades.

Running of the clinics

The clinics are headed by a physician, who works with a team of nurses, social workers, laboratory technicians and clerks. Clinics are usually open five days a week and offer STI screening and treatment services.

Physical structure

Each clinic usually has a registration and waiting area, examination rooms, a laboratory, and counselling rooms.

Services provided

Workers register at the clinic and are issued with an identity card bearing their photograph. The workers carry this card with them at all times while employed. A similar card with a photograph is kept at the clinic

¹ Screening is the process of examining persons not seeking health care, while case finding is the process of examining persons for STI when they are seeking health care for any reason other than STI-related symptoms.

with demographic details. The card the worker carries with her is stamped, dated and signed at each visit after each examination if no infection is found. If an infection is found, the worker is treated but the card is withheld until she comes back for a follow-up visit and is found to have no more clinical symptoms.

At each clinic visit, the attendee has a history taken and is examined. The examination includes a speculum and digital bimanual examination. Endocervical smears are taken and examined microscopically after Gram staining. If intracellular Gram-negative diplococci are found in the smear, the attendee is treated for gonococcal infection with a single oral dose of Cefixime 400 mg. If no organisms are found but there are more than 22 polymorphonuclear leukocytes per high-power field, the patient is treated for non-gonococcal cervicitis with doxycycline 100 mg orally twice daily for seven days. Syphilis and HIV tests are performed once a year. If an attendee is symptomatic for vaginal discharge, lower abdominal pain or genital ulcer disease, she is treated for the STI syndrome.

The attendee is then counselled and advised on consistent condom use.

The clinic also conducts outreach activities aimed at reaching freelance sex workers and sex workers operating from *casas* (illegal brothels).

Fees for services

The attendee pays a very small registration fee (ranges from 15-40 pesos per sex worker per visit), a small fee for the drugs and buys the condoms. Condoms are sold at a subsidized rate through the condom social marketing programme.

Follow-up activities

All women are reviewed weekly.

Support for the clinics

Currently social hygiene clinics are financed by city health departments. Some clinics also receive support from international partners.

Providing regular STI services for female sex workers is important, as women with STIs may have no symptoms until complications develop. These services should be comprehensive, addressing not only clinical needs but also the women's social and legal needs.

Female sex workers with STI or requiring a regular check-up will make use of those facilities they can access and where they perceive that they will receive the best care. Elements affecting their choice include:

Accessibility of health services

Geographic location of services

Services should be physically accessible to patients. If the patient needs to be away from home or work for a long period of time, then the services provided will be less accessible. The ideal health facility would be one that is within walking distance of where the patient lives. To increase service coverage, visits to entertainment establishments can be organized (outreach services).

Reaching sex workers in Phnom Penh, Cambodia

In 1996, the nongovernmental organization Pharmaciens Sans Frontières started a mobile team intervention for sex workers, in partnership with Phnom Penh Municipal Health Department.

A team of medical staff and educators has been visiting brothels every week in seven areas of Phnom Penh, providing information, distributing condoms and lubricant, and offering STI care to sex workers on a voluntary basis. All are invited to contact the mobile team at least once a month, even when asymptomatic. At the first consultation, they are treated systematically for syphilis, as well as for gonococcal and chlamydial infection, regardless of symptoms and clinical signs. At subsequent visits, all sex workers have a risk assessment for cervical infection and are treated for cervicitis if positive. Those with genital ulceration and vaginitis are treated syndromically at each visit.

CASE STUDY

The mobile team intervention has managed to reach most of targeted sex workers. In addition to providing STI care, sex workers are provided with education, condoms are distributed and 100% condom use is advocated and encouraged.

The mobile team intervention is relatively costly because of the time and number of staff required to reach a fairly small and scattered target population. However, it is the only option in areas of the city where no other special services are currently available.

Hours when services are available

The clinic should be open at times when the care seeker can access services. For example, often sex workers will seek services in the afternoon because they work from early evening until late at night. Care seekers will have to be informed of clinic opening hours and notices should be posted for public information.

Costs of services

It is generally recommended that clinic attendees pay a fee for services (clinic, laboratory, medication), but that the cost is made affordable to most of them, particularly if they are mandated to come for check-ups on a regular basis.

Acceptability of services

Stigmatization

Most STI care seekers, including sex workers, feel ashamed to have contracted an STI. Health workers should avoid being negatively judgemental or moralistic. Health workers' attitudes greatly influence the acceptability of services provided, especially to the young FSW. Patients with STIs should be treated like any other patients seeking care and should not be blamed for their "bad behaviour".

Specific programmes need to be developed for freelance sex workers (they often have a higher prevalence of STIs). These women are difficult to reach, as they fear identification, arrest and incarceration, and specific approaches, such as outreach and peer education programmes, are particularly suited to them.

Most STI care seekers, including sex workers, feel ashamed to have contracted an STI.

OUTREACH PROGRAMMES

Sex workers are often described as “hard to reach” in terms of access to services, and outreach has been identified as an important tool in targeting these groups. Health services, HIV/STI prevention, and information about health clinics can be taken to sex workers through outreach.

Outreach to sex workers involves making contact with them on the streets, at night and during the day; establishing good rapport and trust; offering condoms; giving them information about how to reach health clinics; and providing advice about sexual health and STI diagnosis and treatment. Outreach may include visiting entertainment establishments, such as massage parlours, brothels, bars, saunas etc. or having a sex workers’ drop-in centre. Drop-in centres should be situated near the areas where sex workers work or live.

In order to set-up an outreach programme for sex workers, it is necessary to:

- define the types of sex work in the area;
- map sex establishments and estimate the number of active sex workers;
- survey health-seeking behaviour;
- decide on types of outreach work – drop-in centre; mobile clinic;
- select and train outreach workers;
- conduct advocacy meetings with entertainment establishment owners or pimps to build trusting relationships;
- inform the police to avoid harassment of outreach workers;
- provide outreach workers with condoms, lubricants, a dildo for demonstrating how to use a condom, pamphlets and various information leaflets;
- explore the possibility of working with nongovernmental organizations;
- for drop-in centres or mobile clinics, there is a need to explore the capacity of STI clinics to extend this programme.

PEER-LED EDUCATION PROGRAMMES

One method of providing FSW with information and education is through activities conducted by peers. Peer leaders who are identified by the sex workers may be trained as trainers and should be provided with a curriculum to follow. The peer educators should engage in educating other sex workers and promoting the messages of safer sexual behaviour and practices and 100% condom use, and should promote good health-seeking behaviour and voluntary testing for STIs and HIV infection.

In order to develop and implement peer-led prevention activities for FSW it is necessary to:

- develop education messages – enroll the help of sex workers to develop acceptable messages by holding a “writers” workshop and then field test the messages for acceptability;
- develop training materials and training curriculum for peer educators;
- print the materials that will be used in training the educators, as well as educating the sex workers;
- identify peer leaders to act as educators;
- train peer educators according to the curriculum and guide them through the activities needed to train their peers;
- develop a timetable for conducting the training activities;
- commence peer-led education of sex workers and supervise these initially;
- review, revise and modify the training materials according to needs and then allow peer-led activities to continue as scheduled in the timetable;
- monitor and support the activities; and
- evaluate the effects of the activity. Have the behaviour and practices of sex workers in the programme changed? Has there been consistent use of condoms? Has the health-seeking behaviour of sex workers improved?

Privacy and confidentiality

Clinic attendees want to be sure that the information they provide during history taking will not be disseminated to anyone else and that the records will be kept confidential. Health facilities need to be organized to provide privacy and confidentiality during history taking and clinical examination.

Well managed health facility

Services are considered acceptable by patients if they don't take up too much time. Clinics should be clean and hygienic and should have the essential equipment to carry out examinations. The health facility should have examination couches, specula, lights, gloves, disposable consumables and sterilizing equipment.

Supply of drugs and condoms

If the health facility dispenses drugs and/ or provides condoms, continuity of supply should be ensured, if possible at the clinic. If patients are given a prescription to fill in at an outside pharmacy, clinicians should make sure on a regular basis that the drugs and the dosage are available in the dispensary of the clinic or on the market. STI services for sex workers should be free or at least affordable to care seekers, especially if STI check-ups are mandatory.

Professional and competent health care providers

The professionalism of the service provider shows in history taking, physical examination and counselling / education. Patients are more likely to comply with instructions if they believe that they come from competent health staff. Health care providers need to be trained accordingly.

Provision of effective therapy

Drugs prescribed for STIs should provide highly effective therapy with minimum side effects. Standardized treatment protocols for diagnosis and treatment of STIs among sex workers should be developed and distributed, and health workers should be trained to use them.

Clinics should be clean and hygienic and should have the essential equipment to carry out examinations.

Minimum requirements for health facilities providing care for persons with STIs include:

As part of a comprehensive care package, FSW can be educated and counselled and provided with negotiating skills when they attend for STI care or screening.

Premises

At a minimum, STI health facilities must have a registration area, a records storage room, a waiting area, a room where history is taken in private, a room where patients may be examined in private. According to the protocols developed for the diagnosis and treatment of STIs an on-site laboratory may be added to this list.

Examination room equipment

Examination rooms must have a desk and chairs, an examination couch, sheets, a sink with running hot and cold water, towels, soap, overhead lights, an angle-poise lamp, specula and gloves. This list should be complemented according to the needs of diagnosis and treatment protocols. In the case of a laboratory, the list may include swabs, microscope slides and cover slips, blood collecting instruments, specimen jars, blood tubes, and transport media to transport specimens for microbiological tests.

Health education material

As part of a comprehensive care package, FSW can be educated and counselled and provided with negotiating skills when they attend for STI care or screening. This can be done through the use of posters, leaflets, videos or interaction with skilled staff. Training of health care workers in health promotion is important.

Staffing

STI health facilities need a doctor, nurses, clerks, cleaners, counsellors and a pharmacist.

HEALTH SERVICES**Accessibility**

- Location of service close to home or workplace
- Services available at times when client can access them
- Services are free or within an affordable price range

Acceptability

- Services are non-stigmatizing and non-penalizing
- Provider attitudes are non-judgmental and non-moralizing
- Privacy and confidentiality are assured
- Waiting times are not too long
- Health facility has the necessary equipment for examination
- Health facility has an uninterrupted supply of drugs and condoms
- Providers are professional, competent and capable
- Treatment provided is effective in relieving symptoms and, whenever feasible, curing the infection

CHAPTER

3

Clinical services

Management of STI patients or management of FSW attending clinics for regular health check up encompasses:

- making a diagnosis (when a laboratory is available) or presumptive diagnosis (if a syndromic approach is used) of STI or using a risk-assessment;
- providing appropriate antimicrobial agents for the infection;
- providing education on treatment compliance;
- providing information on the nature of the infection and the ways of preventing infection;
- demonstrating the correct use of condoms;
- providing condoms and emphasizing consistent condom use;
- counselling to improve condom-negotiating skills;
- arranging for treatment of regular partners (whenever possible); and
- arranging for follow-up examinations and regular attendances for medical check-ups.

Making a diagnosis of an STI

An STI may be diagnosed in three ways:

- A clinical diagnosis may be made by identifying symptoms and signs.
- An etiological diagnosis may be made after identifying a pathogen through laboratory examinations (with or without symptoms and signs) (see Annex 2).
- A syndromic diagnosis may be made after taking a history, examining the patient and identifying the symptoms and signs.

Assessment of risk

Because a large number (up to 80%) of women with an STI have asymptomatic infections, if a woman attends a health facility without any symptoms, such as for a regular check-up, the only way to exclude or confirm an STI is to perform a laboratory investigation.

In the absence of laboratory facilities, attempts have been made to identify risk factors related to sexual behaviour and practices and signs of STIs that can be identified during an interview and can be good predictors of infection. These may include complaint of vaginal discharge, fever, lower abdominal pain, the number of clients per day, condom use, etc. However, no reliable risk factors have yet been identified and recommendations cannot be made at this stage on the use of risk factors in managing female sex workers attending routine examinations. Risk assessment can be used within the framework of operational research and adapted for the local context of STIs (see example from Viet Nam).

Example of Viet Nam

CASE STUDY

Based on the fact that most sex workers with STIs are asymptomatic, within the framework of the 100% CUP, Viet Nam has started using an algorithm that includes the use of risk assessment. This approach was based on data showing that STIs among sex workers are common, in particular gonorrhoea and chlamydia, and that most health facilities dealing with sex workers have limited laboratory facilities.

Management of sex workers in Viet Nam in health facilities

FIRST-TIME ATTENDEES

Treat all sex workers for cervicitis and early syphilis. Treat for vaginitis as well, depending on signs and symptoms. If complaint of vaginal itching and white vaginal discharge, treat for candidiasis; if complaint of frothy or offensive vaginal discharge, treat for bacterial vaginosis (BV)/trichomoniasis (TV).

Treat all who have not attended for > 3 months as new attendees and treat for cervicitis

FOLLOW-UP CASES

Protocol according to facilities available

- A. With laboratory and speculum
- B. Without laboratory, with speculum
- C. Without laboratory, without speculum

Continued overleaf

Case Study continued**A. With laboratory and speculum***Risk assessment*

- Complaint of vaginal discharge;
- Lower abdominal pain;
- More than three clients per day;
- Condom not used with new clients;
- Fever.

Treat for cervicitis if two or more out of five positive.*If risk assessment negative, determine if either*

- Yellow discharge from cervix;
- 20 white blood cells per high power field;
- Cervical erosion/contact bleeding;
- Pain on bimanual examination.

If any one sign positive, treat for cervicitis

Do laboratory tests and clinical examination for BV, TV and Candida, and treat accordingly.

B. Without laboratory, with speculum*Risk assessment*

- Complaint of vaginal discharge;
- Lower abdominal pain;
- More than three clients per day;
- Condom not used with new clients;
- Fever.

Treat for cervicitis if two or more out of five positive. Ectopic pregnancy or other conditions requiring surgery should be excluded if suspected

If risk assessment negative, determine if either

- Yellow discharge from cervix;
- Cervical erosion/contact bleeding;
- Pain on bimanual examination.

If any one sign positive, treat for cervicitis

If vaginitis with frothy discharge or discharge with offensive smell, treat for BV/TV. If vaginal itching and white discharge, treat for Candida.

C. Without laboratory, without speculum – i.e. Commune level

Risk assessment

- Complaint of vaginal discharge;
- Lower abdominal pain;
- More than three clients per day;
- Condom not used with new clients;
- Fever.

Treat for cervicitis if two or more out of five positive. Ectopic pregnancy or other conditions requiring surgery should be excluded if suspected

Treat for BV/TV if complaint of frothy or offensive discharge. Treat for Candida if complaint of itchy, white vaginal discharge.

Etiological diagnosis

This diagnosis requires a laboratory for microbiological and serological testing of specimens (see Annex 2 on laboratory diagnosis of STIs).

If the clinic has the minimum required equipment, and personnel are trained and experienced in performing tests, some tests may be performed quickly and reliably on site. These include Gram-staining and microscopic examination of fresh wet mounts of secretions and rapid plasma reagin (RPR) testing for syphilis performed on patients' serum.

When laboratory capacity is non-existent or limited, the syndromic diagnosis is recommended, and possibly the integration of a risk-assessment strategy.

Syndromic diagnosis

This approach is only applicable to attendees who have symptoms and signs of STI.

It is based on the observation that a number of sexually transmissible pathogens produce similar symptoms (e.g. pain while urinating) and signs (e.g. vaginal discharge). The syndromic approach does not apply to patients without signs and symptoms. Ideally, for asymptomatic women the laboratory will make the diagnosis of possible STIs. In the absence of laboratory facilities, which is often the case, a strategy should be established.

Standardized treatments are then given for the most common organisms responsible for these syndromes. Syndromes and the pathogens involved are shown in the following table:

STI-related syndromes and their causes

STI syndrome	Pathogens
Urethral discharge	<i>N. gonorrhoeae</i> , <i>C. trachomatis</i>
Genital ulcers	<i>T. pallidum</i> , <i>H. ducreyi</i> , Herpes simplex virus, <i>C. granulomatis</i> , <i>C. trachomatis</i>
Vaginal discharge syndrome	<i>N. gonorrhoeae</i> , <i>C. trachomatis</i> , <i>T. vaginalis</i> , <i>C. albicans</i> , and anaerobic bacteria
Suppurative inguinal lymphadenitis (Bubo)	<i>H. ducreyi</i> , <i>C. trachomatis</i>
Lower abdominal pain (women)	Pelvic inflammatory disease – caused by <i>N. gonorrhoeae</i> , <i>C. trachomatis</i> and other bacteria
Acute scrotal swelling	<i>N. gonorrhoeae</i> , <i>C. trachomatis</i> and other bacteria and viruses
Neonatal purulent conjunctivitis (ophthalmia neonatorum)	<i>N. gonorrhoeae</i> , <i>C. trachomatis</i> and other bacteria

Remember that the syndromic approach *does not* apply to patients without signs and symptoms.

Clinical procedures

Initial visit

At the initial visit, the attendee should be registered, documentation completed, history taken (see “History taking” on page 20) and a physical examination carried out (see “Examination” on page 20).

Women with symptoms of STI should be systematically treated for chlamydial and gonococcal infection (studies have shown that a large majority of sex workers with signs and symptoms of STI will have one or both infections) and for other STI syndromes, if necessary, using the appropriate flowchart (see Annex 4).

If available, a blood test may be performed for syphilis and HIV testing after pre-test counselling.

In some centres it may be possible to take endocervical swabs to identify asymptomatic gonococcal and chlamydial infections.

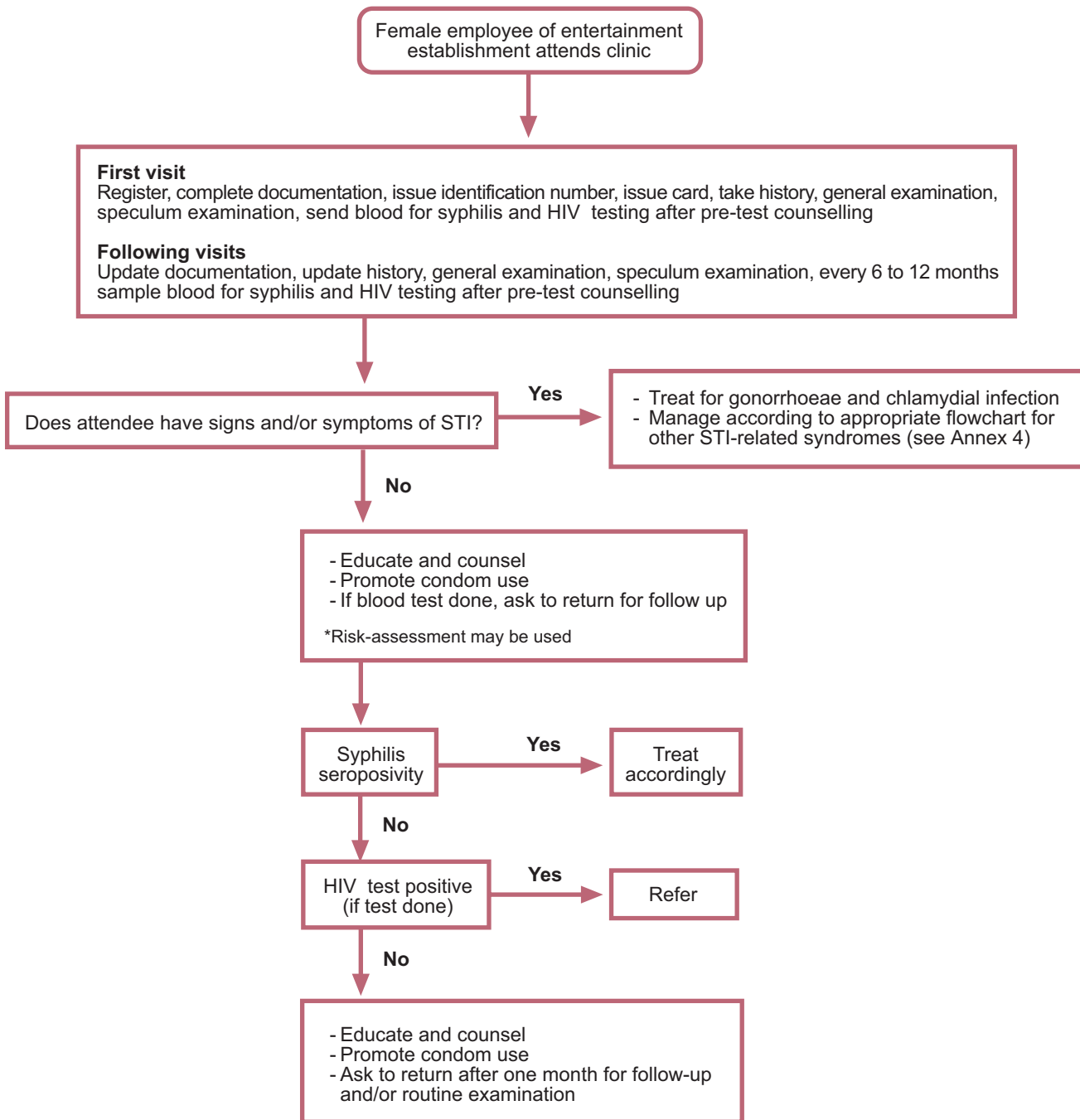
The attendee should be asked to return for the laboratory results.

If she has a positive syphilis test, she should be treated with benzathine benzylpenicillin 2.4 million IU intramuscularly each week for three weeks for latent syphilis. If she is found to be HIV-positive she should be counselled and referred to the appropriate health facility. The available structure for follow-up of HIV-positive patients needs to be identified.

All women attending the clinic should be counselled and encouraged to use condoms consistently. Social, psychological or legal counselling should also be provided (see Chapter 8).

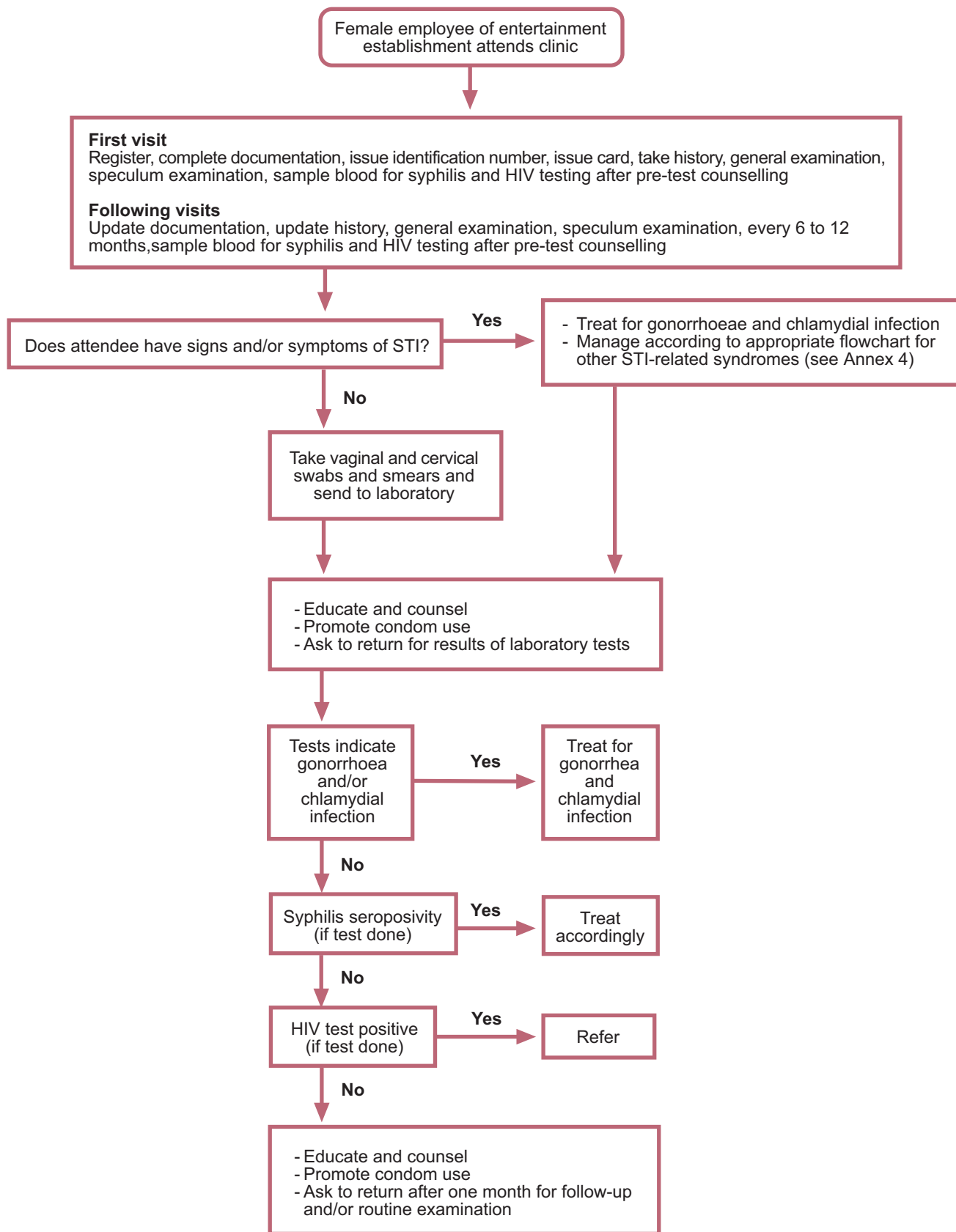
Women with symptoms of STI should be systematically treated for chlamydial and gonococcal infection.

Management of a female employee of an entertainment establishment attending a clinic — no laboratory facilities available



If a patient has been found during a previous visit to have a positive syphilis test result, then, even with adequate treatment, the test will remain positive for months. Therefore, even if a new test is performed six times in the next few months, the laboratory should be informed that the client was previously positive and that they should perform a quantitative non-specific test for syphilis.

Management of a female employee of an entertainment establishment attending a clinic — laboratory facilities available



Subsequent monthly visits

Regular visits to the STI clinic should be encouraged (see flowcharts on the previous pages).

History taking (also see Annex 3)

History taking will inform about sexual behaviour and STI-related symptoms. Female sex workers should be asked whether they have been using condoms and whether they use a condom consistently. Health professionals have to guarantee the confidentiality of the information collected (e.g. by using coded registration numbers instead of names or, if names are registered, by keeping the files in a locked area).

Examination

The examination will begin with an explanation to the patient of the procedure and what may be expected from the examination. The following will be performed:

- General examination;
- Abdominal examination;
- External genital examination;
- Internal speculum examination;
- Bimanual digital examination;
- Collection of specimens if laboratory facilities are available.

The female sex worker attending a health facility should be managed with respect and dignity and all the principles governing the management of any person seeking care at a health facility should be observed. The following guiding principles should be adhered to when managing female sex workers:

- Be courteous, caring and professional.
- Ensure that there is privacy when talking to the patient and when examining her and assure the patient that any information obtained will be kept absolutely confidential.
- Allow the patient enough time to state her problem and discuss her needs; do not rush the patient.

- Avoid moralizing and being judgemental.
- Do not criticise or belittle the patient.
- Show empathy and let the patient know that you care for her and are prepared to help her.

Management of STI-associated syndromes

VAGINAL DISCHARGE

Vaginal discharge may be physiological or pathological. Physiological vaginal discharge is a normal occurrence and does not require treatment. Pathological vaginal discharge requires treatment as it may be due to vaginal infection, cervical infection or infection occurring in the genital tract above the internal os of the cervix. Vaginitis is often caused by *Trichomonas vaginalis*, *Candida albicans* or bacterial vaginosis, while cervicitis is caused by *Neisseria gonorrhoeae* or *Chlamydia trachomatis*.

A spontaneous complaint of abnormal vaginal discharge is most commonly due to a vaginal infection. Bacterial vaginosis is the most common cause, with women complaining of a malodorous vaginal discharge. The discharge is homogeneous, sticky, grey-white in colour and is not copious. The diagnosis of bacterial vaginosis is made on the presence of three of the following four criteria:

In the presence of a laboratory:

- Presence of a homogeneous vaginal discharge;
- Vaginal pH of greater than 4.5;
- Presence of clue cells on microscopy;
- Positive amine test – liberation of a fishy odour after the addition of potassium hydroxide to vaginal secretions (also known as the “sniff test”).

Therefore, all women presenting with vaginal discharge should receive treatment not only for bacterial vaginosis, but also for trichomoniasis, which is a common cause of vaginal infection.

Occasionally vaginal discharge may be the result of mucopurulent STI-related cervicitis. The clinical detection of cervical infection is difficult because a large proportion of women with gonococcal or chlamydial cervical infection are asymptomatic. In addition, microscopy adds little to the diagnosis of cervical infection and is not recommended.

All women presenting with vaginal discharge should receive treatment not only for bacterial vaginosis, but also for trichomoniasis, which is a common cause of vaginal infection.

Local knowledge of the prevalence of gonococcal and/or chlamydial infection in women presenting with vaginal discharge is important for the decision to treat for cervical infection. The higher the prevalence, the stronger the justification for treatment.

Where resources permit, the use of laboratory tests to screen women with vaginal discharge could be considered (for guidelines see annex 4).

In the absence of a laboratory:

Abnormal discharge is highly indicative of vaginal infection, but poorly predictive for cervical infection. All SWs presenting with vaginal discharge should, therefore, receive treatment for gonococcal and chlamydial infection, TV and BV, after excluding STI associated with lower abdominal pain (see Annex 4).

Abnormal discharge is highly indicative of vaginal infection, but poorly predictive for cervical infection.

GENITAL ULCERS

Genital ulcers may be caused by the sexually transmissible pathogens *Haemophilus ducreyi*, *Treponema pallidum*, *Calymmatobacterium granulomatis*, *Chlamydia trachomatis*, and the herpes simplex virus. In addition, there are a number of non-STI-related causes of genital ulcers, such as, abrasions and sores, fissuring of a tight foreskin and bacterial and fungal infections. The epidemiology of genital ulcer disease varies from place to place, though data from Asia are limited.

Clinically it is difficult to differentiate between the different types of genital ulcer, and making a clinical diagnosis is inaccurate, except perhaps in the case of genital lesions caused by the herpes simplex virus. In the presence of HIV infection the clinical pattern of genital ulcers is altered and lesions may persist for long periods.

In patients presenting with a history of genital ulcers, it is important to confirm the presence of genital ulcers and then to give treatment appropriate to the local etiologies and antibiotic sensitivity patterns.

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

For guidelines see Annex 4.

LOWER ABDOMINAL PAIN

One cause of lower abdominal pain in sexually active women is pelvic inflammatory disease (PID), which may be caused by gonococcal, chlamydial or anaerobic bacterial infection ascending from the cervix and reaching internal reproductive organs. Other causes of lower abdominal pain in women that require immediate and urgent management include acute appendicitis, complications of pregnancy, ectopic pregnancy, pelvic abscess and peritonitis.

All women presenting with lower abdominal pain should be carefully examined for the presence of salpingitis and/or endometritis, i.e., pelvic inflammatory disease (PID) or other surgical and gynaecological emergencies. Symptoms suggestive of PID include abdominal pain, dyspareunia, vaginal discharge, irregular menstruation, metrorrhagia, dysuria, pain associated with menses, fever, and sometimes diarrhoea, nausea and vomiting.

In practice, these patients should be urgently referred for a gynaecological consultation.

For guidelines see Annex 4.

CHAPTER

4

Comprehensive case management

The STI consultation provides an opportunity, not only to treat persons with an STI, but also to educate them in ways to prevent becoming infected in the future.

Persons who have an STI have placed themselves at risk of becoming infected with HIV as well. The STI consultation provides an opportunity, not only to treat persons with an STI, but also to educate them in ways to prevent becoming infected in the future. This is especially true when managing FSW with STIs. All sex workers attending for care should receive a complete care “package” and not merely antibiotics for the infection. Comprehensive case management of STI includes the following:

- making a diagnosis of the STI;
- providing appropriate antimicrobial agents for the infection;
- providing education to the client on:
 - treatment compliance;
 - the nature of infection and ways of preventing infection;
 - the correct use of condoms;
 - consistent condom use with regular partners and boyfriends;
- providing condoms; and
- arranging for a follow-up examination.

Making a diagnosis and providing appropriate antibiotics for the infection have been discussed in the preceding chapters. In this chapter some aspects of providing education and counselling during an STI consultation, condom promotion, and partner referral are discussed.

Providing education

The health education message should include information on the following:

- How the patient became infected.
- The nature of the infection and possible complications.
- Treatment compliance.
- Abstinence from sexual activity until cured.
- How to prevent becoming infected in the future.
- How to use a condom.
- The need to use condoms consistently with clients, as well as with regular partners and boyfriends.
- The need to attend for follow-up examinations.

Sex workers should be informed that STIs are acquired through unprotected sexual intercourse. They should be informed of the nature of their infection and the possible complications and that STIs are serious illnesses that can lead to debilitating and long-lasting effects on the body. STIs in women can lead to severe intra-abdominal infections and abscesses, as well as infertility and ectopic pregnancy. They should also be made to understand that some infections can be passed onto the foetus, the neonate and also to the suckling infant, and that babies can become blind as a result of untreated gonococcal eye infection that they pick up from an infected mother at the time of birth. All sex workers should understand that HIV infection is an incurable disease that leads to the death of infected persons and is acquired and transmitted through sexual intercourse like any other STI. Sex workers should be told to complete the full course of treatment that has been prescribed, as incomplete treatment can lead to complications and re-treatment may not be successful as a result of the development of drug resistance. All sex workers should be educated on how to apply a condom. Men are usually reluctant to use condoms and would prefer not to use them. However, if the sex worker is made responsible for applying the condom, she will have put in place one effective method of preventing infection from occurring.

Many female sex workers have regular partners with whom they do not use condoms. It is most important for sex workers to be educated and counselled about the need for consistent condom use, in particular with their regular partners. If they do not use condoms with their regular partners then they are still at great risk of becoming infected, as their partners may be engaging in unprotected sex with other partners.

The importance of regular monthly follow-up examinations should be emphasized.

Counselling persons with STIs

Highly competent, nonjudgemental and sympathetic health workers usually have the confidence and the trust of their patients. They make good counsellors, provided they have the time to listen and talk to their patients. Counselling on a one-to-one basis has a greater impact, motivating persons to change their sexual behaviour. Counselling is an important component in the management of STIs, in particular the “incurable” STIs such as genital herpes and HIV infection. Counselling of persons with STIs may be required when dealing with:

- informing regular partners and boyfriends;
- coping with complications of infection;
- coping with some of the incurable infections;
- modifying sexual behaviour; and
- negotiating condom use.

A sex worker may find it difficult to inform her partner(s) and bring him for treatment. However, a good counsellor may be able to help with this.

Sex workers may not be able to inform their clients about attending STI facilities for care. However, they should be counselled regarding the importance of treatment of at least their regular partners and boyfriends. A sex worker may find it difficult to inform her partner(s) and bring him for treatment. However, a good counsellor may be able to help with this.

Sex workers with STIs can become fearful and even depressed after learning of the possible complications of their illness. Those who have developed a complication may panic and may start seeking care from different providers and from the alternative sector. Counselling is important in this situation, as it will help the woman to understand the complications and how they may impact on her life. Accurate and complete information should be given through a session of listening and informing. Repeated counselling sessions are often necessary.

Most patients are able to cope with their infection, as it is common knowledge that most STIs are curable. However, there are times when a sex worker with an STI will become depressed and will require the support of a counsellor. This is particularly true for persons who have suffered repeated bouts of STI. It should be remembered that sex workers may not be allowed to work and earn a living if they are found to have an infection. Counselling has proved to be particularly helpful in changing people’s sexual behaviour, particularly in encouraging those who are HIV-negative to adopt safe practices to remain negative.

Counselling plays a crucial role in the management of persons found to be infected with HIV and its importance cannot be overstated. In fact, counselling begins even before testing the patient for HIV. After the test result is available, patients are counselled according to whether the result is negative or positive. For persons with a negative HIV test result counselling should be aimed at trying to keep the patient negative. For persons who are found to be HIV-positive, counselling should be directed towards coping with the infection.

Sex workers and their clients should all be encouraged, and even obliged to use condoms 100% of the time. They should be made to realize that their lives may depend on condom use. In addition to providing information and education to SWs, projects may empower vulnerable women to protect their health by increasing their control over their own lives. Activities include improving access to health care, supplying condoms, and making agreements with the police which enable SWs to carry condoms and with the entertainment establishments to give them the right to refuse any sexual encounter without a condom. In addition, negotiation skills may be taught to SWs.

CHAPTER

5

Reporting and monitoring

A universal system of reporting is one in which all health centres report the number of patients seen and treated at health care facilities throughout the city or country.

Introduction

Knowledge of the services currently provided helps in the development and implementation plans for the provision of drugs, equipment, supplies and personnel. Collection of data can also provide information on the effectiveness of any interventions. One simple method of estimating the extent of care needs is to record the number of STI cases seen at health centres. However, the quality of record keeping and the accuracy and regularity of reporting of cases treated at the different centres may vary tremendously and this should be considered when estimating the size of the epidemic.

The objectives of STI reporting are:

- to estimate the extent of care needs;
- to guide planners in providing adequate resources;
- sometimes to monitor the trends in disease patterns; and
- to monitor and evaluate the 100% CUP.

Reporting systems

Universal reporting

A universal system of reporting is one in which all health centres report the number of patients seen and treated at health care facilities throughout the city or country. In this system all health centres submit returns on clinic attendances on a monthly basis. The returns provide essential information. The information is collected on tally sheets and is collated locally and then transmitted to the central epidemiological unit of the Ministry of Health.

If reporting is complete and regular, universal reporting is the ideal method to find out the real magnitude of care needs. However, the system is dependent on the commitment and concerted effort of all health officers.

Reporting from sentinel sites

Reporting from sentinel sites is also a useful method of assessing the size of the epidemic. Sentinel sites are chosen randomly and should represent both urban and rural settings. Details of all STI cases treated at the identified sites are reported in a standard format. Data from sentinel sites can be detailed and may include age, sex, marital status, clinical diagnosis, etiological diagnosis and response to treatment. Information on sexual behaviour and behaviour change may also be collected. The system is dependent on the health worker who fills out the forms. The completed forms are usually collated at a central level, usually at the epidemiological unit of the Ministry of Health, and quarterly reports are sent out from the central level so that front-line health workers can use the information in the local setting.

Reporting from laboratories

A number of infections are diagnosed after laboratory tests have been carried out. In the system where reporting occurs from the laboratory, the laboratory that makes the diagnosis reports the number of cases diagnosed on a monthly basis to the central epidemiological unit. Sometimes age and sex are also reported.

A simplified reporting system

Health facilities involved in the provision of STI care for female sex workers should report cases of STI that are treated. At special clinics for female sex workers, STI episodes, the number of new registrants and the number who come for a follow-up examination after treatment may be reported.

The reporting system need not be a complex one. As part of their health information system, most public health facilities already report the number of cases seen at their clinics. In general, reporting is through the use of tally sheets, which are filled out each day by each health worker. At the end of a week the forms are collected by the clerk and the data collated. At the end of each month the monthly totals are recorded and a watch is

kept over the pattern of attendances and the pattern of STIs seen. The tally sheet has a list of diagnoses, against which appear columns for age groups. Within the columns are a number of circles. Each time a health worker sees a patient a line is placed through one of the circles in the appropriate column against the appropriate diagnosis.

The following STI syndromes can be included in the list: genital ulcers; vaginal discharge; and lower abdominal pain. Women with no symptoms or signs of STI can be recorded, as well as women attending for the first time or for follow-up examinations.

An example of a tally sheet dealing with STI reporting and an example of a tally sheet that reflects etiological diagnosis is in Annex 6.

Monitoring and evaluation of the 100% CUP

Within the framework of the 100% CUP, measurement of STIs is one of the impact indicators of the project.³ Two STI measurements have been identified:

- The proportion of young FSWs with chlamydial infection, and, optionally;
- The number of reported STIs among clients from establishments which could be measured.

³ *Monitoring and Evaluation of the 100% CUP in Entertainment Establishments*. Manila, WHO Western Pacific Regional Office, 2002.

CHAPTER

6

Training health care providers

Coordination with the 100% CUP

As STI services for SWs are an integral part of the 100% CUP, collaboration with condom promotion should be strengthened. In the training of health care providers' module, all possible collaboration should be sought.⁴

Developing standardized STI management guidelines

STI guidelines used throughout a country or region help to standardize treatment protocols and training, leading to better use of drug regimens for treatment and a reduction in the antimicrobial agents needed. STI management guidelines need to be closely developed with national STI experts and with the Essential Drugs Programme.

The STI drugs recommended for use should be efficacious, safe, affordable and widely available. In this manual, the drugs recommended have been selected because of their known efficacy in clinical trials carried out worldwide. It is possible that a particular drug may not be effective against a particular infection in a country due to resistance; therefore, a selection of drugs is given from which to choose.

In the case of minimal STI service, adequate algorithms should be developed, including all possible figures for improvement of diagnosis and treatment among SWs. Assessment may be used. Algorithms should be adapted to the context of the STIs according to setting and different possibilities.

⁴ *Training Course for the 100% CUP. Module 5.* Manila, WHO Western Pacific Regional Office, 2002.

S^{TI}
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Programme.

Developing a training plan

A detailed training plan, outlining the activities that will be carried out to train health workers in providing high quality STI care for female sex workers, should be prepared. The plan should reflect:

- the different categories of health worker to be trained and their needs;
- the development of training materials, as well as the curriculum for trainers and for each category of health worker, according to the flowcharts;
- the type of training that will need to be undertaken for the different groups of trainees; and
- the time frame for the initiation and completion of the training activities.

Developing training materials and a curriculum

T raining should include health worker attitudes, with an emphasis on the provision of non-stigmatizing care.

Training materials suitable for training trainers and each category of health care provider should be developed and field-tested. A curriculum should be developed for trainers and for health care providers. The training should include health worker attitudes, with an emphasis on the provision of non-stigmatizing care. Ideally, the course should contain both theoretical and practical training

Inservice training of health care providers

Health care providers who are already in-post and are currently engaged in providing care for female sex workers should be targeted for training initially.

Theoretical training can be provided through written material that is read under supervision, written exercises, group discussions and individual and group exercises, including role-play.

Practical training will need to be carried out at social hygiene clinics where trainees observe and participate in history taking, carrying out physical

examinations, specimen collection, carrying out laboratory procedures, and educating and counselling patients. Pre- and post-training evaluation should be carried out.

Reviewing and adapting undergraduate and postgraduate curricula

STI sections of existing undergraduate and postgraduate training curricula for nurses, doctors, social workers and allied health professions, should be reviewed. Specific elements on the care of female sex workers should be incorporated.

CHAPTER

7

Educating care seekers

Risk perception and counselling for risk reduction

During the consultation, the FSW should be counselled on how to cope with a situation where unprotected sex may occur.

A female sex worker who presents to a health facility with an STI has engaged in unprotected sex. This may be due to:

- lack of knowledge regarding the prevention of STIs and HIV infection;
- inability to obtain condoms;
- lack of capability to negotiate condom use;
- use of drugs and alcohol.

During the consultation, the FSW should be counselled on how to cope with a situation where unprotected sex may occur. For example, she may lack the ability to negotiate condom use with her male clients and/or boyfriends, and should be counselled on how to cope with that situation. The strength of the 100% CUP is in its support for SWs in negotiating condom use with their clients.

Interventions targeting female sex workers

Print and electronic media may be used, but often some FSW sub-groups do not have access to such educational materials. Special initiatives (such as peer education programmes, outreach programmes) need to be designed for those sex workers who are the most marginalized.

Condom promotion and 100% condom use programme⁵

In the context of sex work, condom use is the most effective method of preventing the sexual transmission of STIs. Countries such as Thailand and Cambodia have demonstrated that mandating 100% use of condoms by female sex workers (see Annex 1) has led to a dramatic decrease in the incidence of STIs and HIV infection. In both countries there has been advocacy for the 100% CUP from the highest level. All female entertainment establishment workers are obliged to use condoms consistently with clients. The practice is monitored closely and sanctions are applied to entertainment establishments not complying with the regulations.

Voluntary counselling and testing for HIV infection

Voluntary counselling and testing for sex workers needs to take into consideration the stigma and legal status of the sex industry in the area in which they work. Stopping risky behaviour completely may reduce sex workers' ability to earn a living. They may be under pressure to perform unprotected sex. Counsellors can help sex workers find ways to work around or reduce the obstacles they face when trying to reduce their risk.

Counselling services should be integrated within service-providing centres. Counselling and testing for HIV is an important component of prevention and control of the spread of HIV. Voluntary counselling and testing services should be widely available and should be offered at minimal or no cost to the patient.

HIV testing can be carried out at either six-monthly or yearly intervals. HIV testing should always be accompanied by pre-test counselling and, once the result of the test is known, post-test counselling should be provided. Persons found to be HIV-positive should be counselled to live with the infection; those found to be HIV-negative should be counselled to remain negative.

⁵ *100% condom use programme in entertainment establishments*. Manila, WHO Western Pacific Regional Office, 2000.

As part of counselling for those found to be HIV-positive, referral to relevant support groups should be included. Other related issues include prevention, such as condom use and care and treatment for opportunistic infections, and the use of ARV where applicable.

CHAPTER

8

Social services

Introduction

The provision of STI care for female sex workers improves their health and the health of the community. As sex workers are usually among the most vulnerable members of the community, their needs extend far beyond health care. In this section, methods to meet those needs are examined.

Needs of female sex workers

The social needs of female sex workers depend on their socioeconomic status and the community in which they work. Women who work part time for an escort agency in a community which respects their rights will have fewer needs than migrant women who are debt-bonded to a brothel during a time of police suppression of sex work. The needs of freelance sex workers may differ from those of establishment-based sex workers. The following sections provide suggestions for addressing the needs of the most vulnerable. They are not presented in order of importance - sex workers themselves know what they need and what they do not. If services are provided they will decide for themselves what their priorities are.

The spiritual needs of sex workers should also be addressed. Sex workers are often discriminated against and stigmatized by the community they live in and by society in general. Most spiritual needs of sex workers can be met through their introduction to other sex workers with similar beliefs and practices. Social service providers can accomplish this through referral.

Physical facilities

It was noted in previous chapters that the physical space in which STI services are delivered affects their accessibility and acceptability.

As sex workers are usually among the most vulnerable members of the community, their needs extend far beyond health care.

Facilities must be within easy reach of sex workers' housing or workplaces and must provide services at times when the sex workers can access them. The same conditions apply to social services.

The simplest way to provide accessible social services is to locate them at the same site as care services. Social services can be provided during clinic hours. This is the most convenient system for female sex workers and provides the greatest accessibility. In clinics where STI care services are only available for a few hours a day, social services can be provided at times when the clinic is not being used for STI care. The SHAKTI project in Bangladesh provided social services first and then located STI care services at the same sites.

THE SHAKTI PROJECT

The SHAKTI project in Bangladesh has been recognized as an example of international best practice. It operates several drop-in centres where STI services contracted to Marie Stopes International are also available a few days a week. The centres are run by the sex workers themselves. There are sewing machines, showers, sleeping rooms, places to cook, and legal training. Children of sex workers are welcome.

Another method is to provide linked referral to social service institutions which are not located in the same space but that maintain links with the institution providing the STI services. Finally, social services may be provided through mobile services that travel to a number of sites, usually with STI care providers.

Nondiscriminatory attitudes, confidentiality and short waiting times are just as important in the provision of social services as they are in health services. Most communities discriminate against sex workers. The sites where they receive health and social services should be havens of nondiscrimination. Women who practice sex work have the same rights to social services as anyone else and will access services that respect that principle.

Health care

STI care and reproductive health alone will not meet all the health care needs of most sex workers. Some clinics serving sex workers provide other health care services on site. The most common ones are treatment

for common illnesses, abortion and family planning services, care for rape and violence victims, and health care for sex workers' children. The Rose Centre in Siem Reap in Cambodia offers general health services in conjunction with its STI care services.

THE ROSE CENTRE

The Rose Centre in Siem Reap in north-western Cambodia aims to improve the well-being of sex workers. Most of its clients work in brothels. The centre offers STI diagnosis and treatment services, a drop-in centre, language courses, vocational skills, and referral services. Non-formal education is offered in a variety of areas chosen by the sex workers themselves. Short educational sessions and terms make it easier for women who are offered limited time away from the brothels by the brothel owners.

A health problem that is increasing among sex workers in several countries in the Region is addiction to opiates and other drugs. This is often considered a legal problem, but addiction is a chronic, lifelong relapsing disease that is too often fatal. Health care system-based addiction services are sometimes available for sex workers in STI clinics in both Malaysia and Hong Kong in the form of 'Twelve Step' models based on Alcoholics Anonymous and Narcotics Anonymous. Harm reduction is also necessary for women who inject drugs. Most of the time, clean syringes and needles are provided in these programmes to prevent HIV infection.

Most female sex workers are poor and may be eligible for government-funded health insurance and social insurance schemes, but they are often unable to obtain insurance. Some sexual health clinics in the Philippines help women who attend clinics for STI care to get health insurance cards.

Education

Literacy classes for sex workers are provided in social services programmes for sex workers in several countries in the Region. Some of these classes are noteworthy as they use teaching and reading materials for nonliterate women that are based on the realities of sex workers' lives. These materials can boost the empowerment of women in general and sex workers in particular. The Cambodian Women's Development Association runs school classes for the children of sex workers in a site distant from the brothel area.

Vocational training is another educational activity that is included in social services for sex workers in most countries of the Region. The most successful programmes have given sex workers the right to choose a vocation and have provided capital and follow-up as the women begin their new work in the community. In Myanmar, both governmental and nongovernmental institutions are involved in this type of initiative.

Security

Sex workers' right to security is often not recognized. In some countries this right is recognized by occupational health and safety regulations or trade union rights. In others the unique vulnerability of sex workers to violence and death related to their work has not been recognized.

There are publications written by sex workers for sex workers on personal safety in sex work, such as *Making Sex Work Safe*.⁶

Legal issues

Recognition of sex work as an occupation whose members have legal rights like any other working person is not common. However, female sex workers may require legal services for a number of issues including:

- arrest and imprisonment for activities related to sex work;
- child custody and access;
- immigration;
- violence;
- credit and debt;
- narcotics;
- union organizing.

They may also need advice about legal issues not directly related to their work, such as residence permits, land issues, divorce or citizenship. Legal services are best provided at the same site as health and social

⁶ *Making Sex Work Safe*. London, Network of Sex Work Projects in collaboration with AHRTAG, 1997.

Recognition of sex work as an occupation whose members have legal rights like any other working person is not common.

services. It is often necessary to provide referral to legal assistants or lawyers in the community who are known to have non-discriminatory attitudes. Services should be affordable or should be at no cost to seekers of legal help.

Many institutions now support decriminalization of prostitution. Decriminalization would resolve the most pressing legal problem that sex workers face, but would not solve all of them.

DECRIMINALIZATION

“Decriminalization” means removing an act from the definition of crime* and enforcement of laws against fraud, abuse, violence and coercion to protect sex workers from abusive, exploitative partners and management.

By “decriminalization” is meant the legislative process that renders lawful certain acts previously prohibited by criminal law e.g. linking carrying a condom to selling sex should be abolished.

* Taken from a website called “Prostitutes’ Education Network” (<http://www.bayswan.org/penet.html>).

Trafficking and children

An issue involving some sex workers is trafficking.

TRAFFICKING

Trafficking in human beings is the recruitment, transportation, transfer, harbouring or receipt of persons, by means of force or the threat of force. It may also involve abduction, fraud, deception, abuse of power or the giving and receiving of payments for the purpose of sexual exploitation, forced labour, slavery-like practices, servitude or the removal of organs.*

* This definition is based on the Protocol to prevent, suppress and punish trafficking in persons, especially women and children, which supplements the United Nations Convention against Transnational Organized Crime. (Definition from the website of UNDCP [http://www.undcp.org/trafficking_human_beings.html])

Women and children who are trafficked may attend clinics where STIs are treated, though most are prevented from attending by the people who control their movements. STI clinics may be entry points for the “three Ps and the three Rs”: Prevention, Protection and Prosecution; Rescue, Return and Reintegration.

Children have their own social service and child protection needs, which differ from those of adults. Social service workers in STI treatment facilities need to have immediate access to child protection services in the rare instances when they have an opportunity to offer emergency support to child sex workers.

Transborder and ethnic migrants

Women who cross national borders to practice sex work or those of different ethnicity from most of the people in the area in which they work have a range of special needs. They often cannot speak the majority language, have few legal rights and protections, and may be subject to racial harassment.

These women deserve care and social services in their own language and outreach workers of the same ethnicity. They have a right to access to the same social services as women from the majority community. The Khemara clinic in the ethnic Vietnamese brothel village of Svay Pak in Cambodia has both Vietnamese and Khmer language services available.

ANNEX 1

Essential components of a 100% CUP

A 100% condom use programme (100% CUP) refers to a type of programme strategy for promoting condom use designed:

- around a particular type of implementing policy at the local level; and
- with a special set of provisions for enforcement.

Policy

The 100% CUP is based on a government “**policy**” (e.g., a law, regulation, decree, etc.) that:

- (1) **Requires the use of condoms** in sexual relations associated with “direct” or “indirect” sex establishments (depending on the local circumstances these might be called brothels, bars, karaoke, saunas or entertainment establishments); in 100% of such establishments, 100% of the time; and
- (2) Makes it **mandatory for entertainment establishment operators** to collaborate with local government, law enforcement, and health services in implementing this policy as a term of their permission to conduct business.

Enforcement

The policy can be **enforced** by:

- (1) defined **sanctions** (e.g. fines, closure) for entertainment establishments failing to implement the programme properly;
- (2) non-condom use, which can be **monitored** through:
 - (a) **interviewing male STI patients** on the source of infection;
 - (b) **regularly screening and treating establishment workers** for STIs;

- (c) **mystery clients** posing as clients;
- (d) **surveys** on condom use as reported by sex workers and clients; and
- (e) **condom supply or sale** in entertainment establishments.

ANNEX 2

Laboratory diagnosis of STIs

Introduction

In order to make a precise diagnosis of an STI, laboratory tests are needed to identify the causal agent of the infection. Laboratory testing is required when there is a need to make an etiological diagnosis of an STI, confirm a diagnosis of a suspected STI, detect infections in asymptomatic individuals, monitor the pattern of antimicrobial resistance of STI pathogens and conduct research. The laboratory tests available to diagnose an STI are described in this chapter.

It is important to remember that the laboratory can be useful only if the clinicians requesting laboratory tests send the correct specimens and request the appropriate tests. In patients with genital discharge, genital secretions should be collected and submitted to the laboratory. In patients with genital ulcers, ulcer exudates should be collected and sent for examination. In patients who have no symptoms or signs, swabs of genital fluid can still be taken for laboratory tests. If syphilis or HIV infection is to be excluded then appropriate tests need to be carried out on the patient's blood.

In order to establish the etiology of a genital ulcer, tests to identify the organism that is causing the condition may be carried out. Tests that may be carried out are shown in Tables 1 to 3.⁷

Collection of specimens for laboratory tests

All specimen collection should be carried out under sterile conditions. Contamination of specimens submitted for tests will lead to false-negative and false-positive results. The type of specimens collected will depend on the symptoms and signs and the availability of specific tests (see laboratory protocols).

Patients with genital ulcers

In order to identify the cause of genital ulcers the following specimens should be collected:

⁷ Some of the tests listed are only available in a limited number of research laboratories.

- Swabs of ulcer exudates
- Venous blood

The following tests can be performed:

- Examination of the fresh wet preparation for motile treponemes
- Examination of Gram-stained smears of ulcer exudates for Gram-negative bacilli
- Examination of Giemsa or Wright-stained ulcer exudates for Donovan bodies
- Examination by fluorescent microscopy of smears of ulcer exudates stained with special monoclonal antibody staining reagents for herpes virus and chlamydial antigens

Table 1: Laboratory tests for the identification of STI pathogens that cause genital ulcers

STI	Organism	Specimen	Tests
Chancroid	<i>Haemophilus ducreyi</i>	Ulcer exudates and bubo aspirate	Gram-stained smear for Gram-negative bacilli Culture on selective media <i>H. ducreyi</i> antigen detection <i>H. ducreyi</i> DNA detection by PCR
Syphilis	<i>Treponema pallidum</i>	Ulcer exudates and venous blood	Dark field microscopy of ulcer exudates for motile spirochetes <i>T. pallidum</i> antigen detection <i>T. pallidum</i> DNA detection by PCR Serological tests for non-treponemal and treponemal anti antibodies
Genital herpes	Herpes simplex virus – Types 1 and 2	Ulcer exudates	Fluorescent microscopy for herpes antigen ELISA test for herpes antigen Herpes simplex virus DNA detection by PCR Culture for herpes virus isolation
Granuloma inguinale	<i>Calymmatobacterium granulomatis</i>	Ulcer exudates and tissue biopsy	Giemsa-stained smear for Donovan bodies Histology of tissue for Donovan bodies
Lymphogranuloma venereum	<i>Chlamydia trachomatis</i>	Ulcer exudates	Fluorescent microscopy for chlamydial antigen ELISA test for chlamydial antigen

Table 2: Laboratory tests for the identification of human papilloma virus and human immunodeficiency virus

STI	Organism	Specimen	Tests
Genital warts	Human papillomavirus	Cervical cells Pap smear	Pap smear for cell morphology DNA hybridization
HIV infection	Human immunodeficiency virus	Venous blood	Detection of HIV antibodies by ELISA, Rapid tests, Western Blot test Detection of HIV antigen – p24 antigen test HIV DNA and RNA detection (viral load)

Table 3: Laboratory tests for the identification of STI pathogens that cause genital discharge

STI	Organism	Specimen	Tests
Gonorrhoea	<i>Neisseria gonorrhoeae</i>	Genital exudates	Gram-stained smear for Gram-negative intracellular diplococci Culture for gonococcal isolation on selective media Ligase chain reaction for <i>N. gonorrhoeae</i>
Chlamydial infection	<i>Chlamydia trachomatis</i>	Genital exudates	Fluorescent microscopy for chlamydial antigen ELISA test for chlamydial antigen Culture for chlamydia isolation LCR for <i>C. trachomatis</i>
Trichomoniasis	<i>Trichomonas vaginalis</i>	Genital exudates	Microscopic examination of wet preparation for motile trichomonads Culture for <i>Trichomonas</i> isolation on selective media <i>T. vaginalis</i> DNA detection by PCR
Candidiasis	<i>Candida albicans</i> and <i>Torulopsis glabrata</i>	Genital exudates	Microscopic examination of wet preparation for budding yeasts Gram-stained smear for identification of yeasts Culture on Sabourauds agar <i>C. albicans</i> DNA detection by PCR
Bacterial vaginosis	Anaerobic bacteria	Genital exudates	Microscopic examination of wet preparation for clue cells Gram-stained smear for identification of clue cells and bacteria Culture for isolation of anaerobic bacteria DNA hybridization

- ELISA tests on ulcer exudates for chlamydial antigen detection
- Culture *H. ducreyi* from ulcer exudates and bubo aspirates on selective media
- Culture herpes virus and *C. trachomatis* on living cell lines
- Serological tests for syphilis, including the non-treponemal tests (RPR and VDRL tests) and the treponemal tests (FTA-Abs and TPHA tests).

Women with vaginal discharge

In order to identify the cause of vaginal discharge the following specimens should be collected:

- Vaginal swabs obtained from the posterior fornix of the vagina
- Endocervical swabs
- Urine

The following tests can be performed:

- Examination of the fresh wet preparation for motile trichomonads, yeasts and clue cells
- Detection of amines liberated after adding 5% potassium hydroxide solution to the discharge (on the speculum)
- Examination of Gram-stained smears of vaginal secretions for yeasts and clue cells
- Culture of vaginal secretions for *Trichomonas vaginalis* and anaerobic bacteria
- Examination of the Gram-stained endocervical smear for intracellular diplococci and polymorphonuclear leukocytes
- Examination of endocervical smears for chlamydial antigen by fluorescent microscopy after monoclonal antibody staining
- Culture of endocervical material for *N. gonorrhoeae* and *C. trachomatis*
- Chlamydial ELISA antigen test on endocervical secretions
- LCR on urine for the detection of *N. gonorrhoeae* and *C. trachomatis*

Asymptomatic women

The following tests should be carried out in women attending health facilities for routine examination and for validation of health cards:

- Vaginal swabs obtained from the posterior fornix of the vagina;
- Endocervical swabs;
- Urine.

The following tests can be performed:

- Examination of the fresh wet preparation for motile trichomonads, yeasts and clue cells
- Examination of Gram-stained smears of vaginal secretions for yeasts and clue cells
- Detection of amines liberated after adding 5% potassium hydroxide solution to the discharge (on the speculum)
- Culture of vaginal secretions for *Trichomonas vaginalis* and anaerobic bacteria
- Examination of the Gram-stained endocervical smear for intracellular diplococci and polymorphonuclear leukocytes
- Examination of endocervical smears for chlamydial antigen by fluorescent microscopy after monoclonal antibody staining
- Culture of endocervical material for *N. gonorrhoeae* and *C. trachomatis*
- Chlamydial ELISA antigen test on endocervical secretions
- LCR on urine for the detection of *N. gonorrhoeae* and *C. trachomatis*

Simple bedside laboratory tests

A number of tests may be performed at the health facility provided that it has the equipment and trained staff to carry out the tests. For such tests to be carried out there is a need for a microscope with a light field and a dark field condenser. There is also a need for microscope slides, Gram-stain reagents, normal saline and microscope cover slips, blood tubes, a centrifuge and RPR test kits, a spirit lamp, a sink and running hot and cold water. With this type of equipment and supplies it is possible to carry out the following tests:

- Dark field microscopy of ulcer exudates — *T. pallidum*
- Microscopy of fresh wet preparations of genital secretions — *T. vaginalis*, *C. albicans*, clue cells
- pH of vaginal secretions — an alkaline pH is suggestive of bacterial vaginosis
- Liberation of amines after the addition of a drop of a 5% solution of potassium hydroxide (KOH) to vaginal secretions — indicative of bacterial vaginosis
- Microscopy of Gram-stained smear of genital discharge fluid, ulcer exudates — *N. gonorrhoeae* (presumptive diagnosis), *H. ducreyi* (presumptive diagnosis), *C. albicans*, clue cells, polymorphonuclear leukocytes
- RPR card test — non-specific test for syphilis (good for screening purposes)
- Urine LE test for indirect evidence of gonococcal and or chlamydial infection

Tests performed at more sophisticated laboratories

Depending on the expertise and equipment available, a broad range of tests may be carried out at more sophisticated laboratories, including:

- Microscopy — *T. pallidum*, *T. vaginalis*, *C. albicans*, clue cells, *N. gonorrhoeae*, *H. ducreyi*, *Gardnerella vaginalis*, *Calymmatobacterium granulomatis*
- Fluorescent microscopy and ELISA tests carried out on genital secretions — Herpes simplex virus and *C. trachomatis* antigen
- Culture and isolation — *T. vaginalis*, *C. albicans*, anaerobic bacteria, *N. gonorrhoeae*, *H. ducreyi*, *Gardnerella vaginalis*, *C. trachomatis*, Herpes simplex virus, *Ureaplasma urealyticum*
- Histological examination of tissue biopsies — *C. granulomatis*, genital human papilloma virus
- Specific tests for syphilis — FTA-ABS, TPHA
- Non-specific tests for syphilis — RPR test, VDRL test, quantitative non-specific tests for syphilis

- ELISA test for HIV antibody and Western Blot confirmatory test for HIV infection
- LCR — for the detection of gonococcal and/or chlamydial infection
- DNA hybridization tests for most STI pathogens are now available, though not widely (see tables at the beginning of this chapter)

Interpretation of laboratory test results

All laboratory tests are extremely costly and need a laboratory, laboratory equipment, laboratory reagents and the technical capacity to perform the tests. The facilities available at any particular laboratory may not include all the tests listed. It is necessary to obtain a list of tests available at the laboratory and use the services rationally.

Simple laboratory tests

GRAM STAIN AND MICROSCOPY

This is a very useful and easy test to do and is not costly. However, it does require a laboratory scientist experienced in staining techniques and microscopy.

Table 4: Interpretation of Gram stain microscopy of vaginal secretions

Gram stain result	Interpretation
Numerous epithelial cells seen, no polymorphonuclear leukocytes, with or without large Gram-positive bacilli	Normal result, bacilli are probably lactobacilli. If vaginal discharge present then do a wet preparation and examine the specimen for motile trichomonads
Numerous epithelial cells seen, no polymorphonuclear leukocytes, with or without large Gram-positive bacilli and Gram-positive budding yeast cells with or without pseudohyphae	Patient has candidiasis. Bacilli are probably lactobacilli and the budding yeast cells and pseudohyphae are of <i>Candida</i> .
Numerous epithelial cells seen, few polymorphonuclear leukocytes and clue cells (i.e., epithelial cells covered with small Gram-negative rods)	The patient has bacterial vaginosis

Table 5: Interpretation of Gram stain microscopy of endocervical secretions¹

Gram stain result	Interpretation
Few epithelial cells seen, less than 20 polymorphonuclear leukocytes per high power microscopic field, no organisms seen	Normal result.
Numerous polymorphonuclear leukocytes and Gram-negative intracellular diplococci	This patient has gonococcal cervicitis. This patient could also have non-gonococcal cervicitis, i.e., mixed gonococcal and chlamydial infection.
More than 20 polymorphonuclear leukocytes but no Gram-negative intracellular diplococci	This patient has non-gonococcal cervicitis. The patient could still have gonococcal infection.

¹ The interpretation of an endocervical Gram stain is difficult in women. It is also unreliable as an index of infection. The number of polymorphonuclear leukocytes in the cervix of any woman varies from day to day. However if Gram-negative intracellular diplococci are found then a presumptive diagnosis of gonococcal infection can be made. The absence of these organisms does not rule out gonorrhoea.

MICROSCOPIC EXAMINATION OF THE WET PREPARATION

The microscopic examination of a wet preparation of vaginal secretions is useful in making a diagnosis of bacterial vaginosis, trichomoniasis and candidiasis. The examination is quick and easy to perform, but does require a microscope and a trained microscopist. Trichomonads, yeasts and pseudohyphae and clue cells are easily visible on direct microscopy of a fresh wet preparation of genital secretions in women as well as in men.

In persons with genital ulcers a fresh wet mount of ulcer exudate may be examined by dark field microscopy for the presence of treponemes.

AMINE TEST FOR BACTERIAL VAGINOSIS

In women with bacterial vaginosis the vaginal discharge is alkaline and has a fishy odour. This odour, which is caused by aromatic amines, if only subtle may be made obvious by the addition of a drop of 5% potassium hydroxide (KOH) solution. This test is normally carried out after the speculum is withdrawn, when a drop of KOH is added to the discharge on the speculum and sniffed.

Table 6: Characteristics of *Candida* detection assays

	Microscopy wet mount	Culture >10³cfu/ml	Antigen detection	DNA detection
Sensitivity ¹	35-45%	67%	61-81%	80%
Specificity ¹	99%	66%	97%	98%
Advantages	rapid, inexpensive	sensitive	rapid, also detects Trichomonas	rapid, objective, also detects Trichomonas and Gardnerella
Disadvantages	subjective	requires 24 hours	expensive	expensive, requires special equipment and test read immediately after completion
Level of use	exam room, on-site lab	on-site lab, intermediate lab	exam room, on-site lab	intermediate lab, referral lab
Training	moderate	moderate	minimal	moderate
Equipment	light microscope	incubator, light microscope	none	heat block, special processor
Ease of performance	easy	moderate	easy	easy to moderate, automated
Cost	US\$ 1.00	US\$ 2.00	US\$ 12.00 (includes detection of Trichomonas)	US\$ 12.00 (includes detection of Trichomonas and Gardnerella)

¹ Sensitivity and specificity are for clinical signs and symptoms of vulvovaginal candidiasis.

Table 7: Characteristics of *Trichomonas* detection assays

	Microscopy	Culture	Antigen detection	DNA detection	
				Hybridization assay	PCR
Sensitivity ¹	38-82%	98%	86%	88-91%	93%
Specificity ¹	100%	100%	99%	100%	96%
Advantages	rapid, inexpensive	sensitive, diagnosis in men	rapid	rapid, objective, also detects <i>Gardnerella</i> and <i>Candida</i>	very sensitive, allows patient self-sampling
Disadvantages	low sensitivity, must be performed immediately, subjective	takes 1-4 days	expensive	expensive, requires special equipment and test read immediately after completion	expensive, requires expertise
Level of use	exam room on-site lab	on-site lab, intermediate lab	exam room, on-site lab	intermediate, referral lab	referral lab
Training	moderate	moderate	moderate/ minimal	moderate	extensive
Equipment	light microscope	incubator, light microscope	light or fluorescent microscope/ none	heat block, special processor	thermal cycler, microwell plate reader
Ease of performance	easy	easy	moderate/ easy	easy to moderate, automated	complex, automated
Cost	US\$ 1.00	US\$ 3.00	US\$ 6.00-12.00 (includes detection of <i>Candida</i>)	US\$ 12.00 (includes detection of <i>Candida</i> and <i>Gardnerella</i>)	US\$ 11.00

¹ Sensitivity and specificity are for detection of *T. vaginalis* by combined wet prep and culture results.

Table 8: Characteristics of bacterial vaginosis detection assays

	Microscopy and metabolic production detection			DNA detection Hybridization assay
	3 of 4 criteria	Gram stain	<i>Proline aminopeptidase</i>	
Sensitivity ¹	81%	89%	93%	94%
Specificity ¹	94%	93%	93%	81%
Advantages	rapid, inexpensive	reproducible, standardized, inexpensive	objective	objective, can also detect <i>Candida</i> and <i>Trichomonas</i>
Disadvantages	subjective, some criteria nonspecific	requires expertise	takes longer than wet mount or stain	expensive, requires special equipment, test read immediately after completion
Level of use	exam room, on-site lab	on-site lab,	on-site lab, intermediate lab	intermediate lab, referral lab
Training	moderate	moderate	minimal	moderate
Equipment	light microscope	light microscope	centrifuge, incubator	heat block, special processor
Ease of performance	easy	easy	easy	easy to moderate, automated
Cost	US\$ 1.00	US\$ 0.50	US\$ 1.00	US\$ 12.00 (includes detection of <i>Candida</i> and <i>Trichomonas</i>)

¹ Sensitivity and specificity are for diagnosis of BV by presence of 3 of 4 criteria and/or positive Gram stain.

Table 9: Characteristics of *Chlamydia* detection assays

	<u>Microscopy</u>	<u>Antigen detection</u>		<u>RNA detection</u>	<u>Amplification and detection</u>	
	DFA	EIA	Rapid	Chemoluminescent DNA probe	PCR	LCR
Sensitivity ¹	74%-90%	71%-97%	52%-85%	75%-85%	90%	90%-97%
Specificity ¹	98%-99%	97%-99%	> 95%	98%-99%	99%-100%	99%-100%
Advantages	rapid, easy	can batch samples	rapid, easy	also detects <i>N. gonorrhoeae</i> , automated	can detect <i>N. gonorrhoeae</i> in same sample	less affected by inhibitors
Disadvantages	labour intensive, subjective	requires confirmation	insensitive, requires confirmation	less sensitive than PCR, requires confirmation	<p style="text-align: center;">Allow noninvasive sampling</p> false negatives	no test for sample inhibitors
Level of use	on-site lab, intermediate	intermediate, referral lab	exam room, on-site lab	intermediate, referral lab	intermediate, referral lab	intermediate, referral lab
Training	moderate to extensive	moderate	minimal	moderate	moderate to extensive	moderate
Equipment	fluorescent microscope	microwell plate reader	none	heat block, luminometer	thermal cycler, incubator, microwell plate reader	thermal cycler, LCx processor
Ease of performance	moderate	moderate	easy	moderate	moderate to difficult, automated	moderate, automated
Cost	US\$ 6.00	US\$ 6.00	US\$ 13.00-16.00	US\$ 8.00	US\$ 11.00 (US\$ 14.00 for <i>N. gonorrhoeae</i> detection also)	US\$ 16.00

¹ Sensitivity and specificity is for detection of *C. trachomatis* by culture or by DNA amplification

Table 10: Characteristics of *N. gonorrhoeae* detection assays

	Microscopy	Culture	DNA detection	Amplification and detection	
			Hybridization assay	PCR	LCR
Sensitivity ¹	90%-95%	81%-100%	86%-100%	89%-97%	95%-100%
Specificity ¹	98%-100%	100%	99%	94%-100%	98%-100%
Advantages	rapid, inexpensive	gold standard, isolates available for further testing	rapid, viable organisms not required	viable organisms not required, extremely sensitive, allows non invasive sampling, can detect <i>C. trachomatis</i> in same sample	
Disadvantages	insensitive for females	stringent handling, requires up to 3 days	expensive	expensive, requires expertise, no test for sample inhibitors	
Level of use	on-site lab	on-site lab, intermediate	intermediate, referral lab	intermediate, referral lab	intermediate, referral lab
Training	moderate	moderate	moderate	moderate to extensive	moderate
Equipment	light microscope	incubator, light microscope, candle jar	water bath, luminometer	microfuge, thermal cycler, incubator, microwell reader	heat block, thermal cycler, microfuge, Imx processor
Ease of performance	easy	moderate	moderate	moderate to difficult, automated	moderate, automated
Cost	US\$ 0.50	US\$ 1.00 (+1-3 to confirm positive isolates)	US\$ 6.00	US\$ 11.00 (US\$ 14.00 for <i>C. trachomatis</i> detection also)	US\$ 14.00

¹ Sensitivity and specificity are for detection of *N. gonorrhoeae* in urethral, endocervical and urine samples by culture except for microscopy, which is for detection in urethral samples from symptomatic men.

Table 11: Characteristics of syphilis detection assays

	Microscopy Dark-field	Antibody detection		Antigen Detection	DNA detection Multiplex PCR
		Nontreponemal RPR	Treponemal MHA-TP		
Sensitivity ¹	74%-86%	72%-100%	69%-90%	81%	91%
Specificity ¹	97%-100%	93%-98%	98%-100%	89%	99%
Advantages	positive early, rapid, specific, inexpensive	inexpensive, rapid, easy, antibody titer to follow treatment	specific, confirms non treponemal tests	detects <i>T. Pallidum</i> before antibodies are positive	sensitive, specific, allows self-collected sample
Disadvantages	insensitive, no oral sample, requires live treponemes	false positives, less sensitive for early disease	more difficult, more expensive	time consuming, expensive	inhibitors of PCR reaction cause false-negative results, complex, expensive
Level of use	exam room, on-site lab	on-site lab, intermediate lab	intermediate lab, referral lab	intermediate lab, referral lab	referral lab
Training	extensive	minimal	moderate	moderate	extensive
Equipment	light microscope with dark-field condenser	centrifuge, rotator	centrifuge	spectrophotometer	microfuge, thermal cycler, incubator, microwell plate reader
Ease of performance	easy	easy	moderate	moderate	complex
Cost	US\$ 0.40	US\$ 0.50	US\$ 1.40	US\$ 3.00	US\$ 14.00 (includes detection of <i>H. ducreyi</i> and HSV)

¹ Sensitivity and specificity is for detection of primary syphilis. The sensitivity of both nontreponemal and treponemal antibody detection increases for detection of secondary syphilis. The sensitivity of nontreponemal antibody detection decreases for detection of latent and tertiary syphilis. The tests for *T. pallidum* are only relevant when lesions are present in primary and secondary syphilis, but can detect latent untreated infection which can be important for patient outcomes, such as in pregnancy.

THE RAPID PLASMA REAGIN (RPR) TEST

The RPR test is performed on sera of patients. The test is carried out on a white card and takes no more than 10 minutes to perform. The test is a non-specific test for syphilis and becomes positive about five weeks after infection has occurred. With treatment, the test becomes negative over a period of 12 to 24 months. It is a good screening test and ideally the results of the test should be confirmed with a specific test for syphilis. The test may be quantified and titres can be observed as they decrease gradually. As the test can be performed at the clinic, the patient can be asked to wait for the results. It is particularly useful when screening pregnant women attending antenatal clinics.

Table 12: Characteristics of chancroid detection assays

	Culture	Antigen detection	DNA detection — PCR
Sensitivity	56%-90% ¹	not determined	77%-98% ²
Specificity	100%	not determined	98%-100%
Advantage	isolates available for further testing	faster	very sensitive
Disadvantages	insensitive, proper medium difficult to obtain	not commercially available	inhibitors of PCR cause false-negative results, complex, expensive
Level of use	on-site lab	referral lab	referral lab
Training	moderate	moderate	extensive
Equipment	incubator, light microscope, candle jar	fluorescent microscope or microwell plate reader	microfuge, thermal cyclers, incubator, microwell plate reader
Ease of performance	difficult	moderate	complex
Cost	US\$ 2.00 (without confirmation)	not available	US\$ 14.00 (also detects T. Pallidum and HSV)

¹ The sensitivity of culture varies depending on the type of medium used and can only be estimated since there is no gold standard on which to base the diagnosis of chancroid.

² Resolved sensitivity of PCR vs. H. ducreyi culture.

Testing for HIV

A large number of tests are now available for the diagnosis of HIV infection. It is standard practice to perform a screening test initially and, if this is positive, to repeat the test using an alternative test or a confirmatory test. WHO has published a series of guidelines addressing this issue.

Most control programmes use an ELISA test for detecting HIV antibodies in patients' serum. If this is positive another ELISA test is performed. If both ELISA tests are positive then a confirmatory test such as the Western Blot test or one of the amplification tests, such as PCR, are used. It is now possible to measure the concentration of HIV particles in the body fluids of infected persons. The viral load tests are used to monitor the response to treatment with antiretroviral agents of persons who are infected.

Persons who are to have an HIV test should be pre-test counselled so that they may be prepared for a positive result and so that they understand the consequences of being HIV-positive. Once the HIV test result is available, all persons, whether positive or negative, should then receive post-test counselling.

Table 13: Characteristics of HIV detection assays

	Antibody detection		Antigen detection	DNA detection — PCR	RNA detection — Quantitative
	EIA	Dot			
Sensitivity	100%	100%	detect earlier than antibody tests	as sensitive as culture	earliest detection
Specificity	95.8%-100%	99%-100%	100%	100%	100%
Advantage	sensitive, inexpensive, automated	sensitive, specific, differentiate HIV-1 and 2	early detection	perinatal diagnosis, sensitive	monitor HIV levels
Disadvantages	false-positive results, no serotyping	expensive	insensitive	expensive, time-consuming	expensive, time-consuming
Level of use	intermediate lab	on-site lab, intermediate lab	referral lab	intermediate lab, referral lab	referral lab
Training	moderate	minimal	moderate	moderate	extensive
Equipment	centrifuge, microwell plate reader	none	centrifuge, microwell plate reader	microfuge, thermal cycler, microwell plate reader	depends on method ¹
Ease of performance	moderate	easy	moderate	moderate	extensive
Cost	US\$ 2.00-3.00	US\$ 6.00-7.00	US\$4.00-5.00	US\$ 12.00	US\$ 60.00

¹ For RT-PCR: microfuge, thermal cycler, incubator, microwell plate reader. For bDNA: ultracentrifuge, luminometer. For NASBA: microfuge, luminometer.

ANNEX 3

History taking and examination

Clinical procedures

All female sex workers attending for STI care or for a routine medical examination should have a history taken and should undergo a physical examination. From the history it is important to note whether the patient has STI-related symptoms and whether she has any other problems. It is also important to obtain details of her sexual history. Female sex workers should be asked whether they have been using condoms and whether their condom use is consistent. Patients attending clinics should be assured that information obtained will remain confidential. Patients should be interviewed and examined in privacy in a well-lit room. Case record forms should be filled out as accurately and completely as possible, and all specimens taken should be clearly labelled.

History taking

In order to obtain a truthful and accurate history from patients it is necessary that privacy is assured and patients are made to understand that confidentiality will be maintained at all times.

DEMOGRAPHIC DETAILS

Demographic details should be obtained and entered into a standardized case report form. Ask the patient what her occupation is and why she has come to the clinic. If she is working in the entertainment industry she may have come simply for a mandatory examination to maintain her health certificate. If it is the practice to keep anonymity then the name should not be entered — use the patient's personal identification number (if this is the patient's first visit then issue a personal identification number). This number should appear on all the case sheets, as well as on the specimen tubes and the laboratory request forms.

SYMPTOMATOLOGY

Find out if the patient has any symptoms and list these chronologically together with duration and progression of the symptoms. Find out

GUIDE FOR HISTORY-TAKING

General details	Age Number of children Locality or address Employment
Present illness	Presenting complaints and duration
For men only	If a urethral discharge — Pain while passing urine? Frequency? If scrotal swelling — History of trauma?
For women only	If a vaginal discharge — Pain while passing urine? Frequency? Risk assessment positive (see note below)? Lower abdominal pain — Vaginal bleeding or discharge? Painful or difficult pregnancy or childbirth? Painful or difficult or irregular menstruation? Missed or overdue period?
For men and women	If a genital ulcer — Is it painful? Recurrent? Appearance? Spontaneous onset? Other symptoms, such as itching or discomfort
Medical history	Any past STI — Type? Dates? Any treatment and response? Results of any prior tests? Other illness — Type? Dates? Any treatment and response? Results of tests? Medications Drug allergies
Sexual history	Currently active sexually? New sex partner in the last three months? Risk assessment (see note below)

Note: Risk assessment is a specific set of questions to ask female patients who complain of vaginal discharge. It is included in the flow-chart to help providers decide where the infection is localized.

specifically, if this has not already come up, whether the patient has symptoms related to the genitourinary system, dysuria, frequency, vaginal discharge, swelling and/or pain in the groin, sores around the genitals and anus, lower abdominal pain, dyspareunia, skin rashes, warts or any swellings or lumps anywhere. Obtain details of her menstrual cycle, paying particular attention to irregularities in menstruation, dysmenorrhoea, menorrhagia and delay in menses. Find out if the patient has had any major illnesses or STIs in the past. Note whether the patient is currently taking any kind of medication and also whether she is allergic to any medications.

SEXUAL HISTORY

When talking about sexuality reassure the patient that the information is being obtained only to help in treating her, that the information will not be divulged to anyone else, and that all information will be kept absolutely confidential. It is often helpful to start off the questions regarding sexuality by saying, *“I would now like to ask you some very personal questions, please try to answer the questions as best you can. The answers to your questions will help me plan your treatment.”*

Details of her sexual history should be obtained by direct questioning. Obtain details of her sexual history and find out whether she is using condoms. Ask specifically whether she exchanges sex for money. If possible, find out the number of partners she has had sex with in the last two weeks. Find out if she has a regular partner and whether he is using condoms with her.

IDENTIFYING SEX WORKERS

There are no specific characteristics that allow for the identification of sex workers. From the history one will have noted whether the patient has multiple partners. Ask the patient directly whether she engages in sex for money. The behaviour at the clinic, the mannerism and the dress of the patient may be indicators of her profession BUT these should not be taken as absolutely sure signs that she is a sex worker.

Examination

At the beginning of the examination explain to the patient what you are about to do and what she may expect from the examination. Explain that you will not hurt her and that if she relaxes then the procedure will not be painful. Examine the patient in privacy in a well-lit room. The patient should strip from the waist down and should lie on a couch. Make sure to cover the patient with a sheet and only expose those parts of the body that you are examining.

GENERAL EXAMINATION

Do a general examination. Look for rashes, swellings and sores on the chest, back and abdomen. Palpate the neck, the axillae, supraclavicular, submandibular and epitrochlear areas for enlarged lymph nodes. Look in the mouth and inspect for sores and for candida.

STEPS FOR EXAMINING FEMALE PATIENTS FOR STI SYNDROMES

1. Ask the patient to remove her clothing from the waist down, and then to lie on the couch. To avoid embarrassment, use a sheet to cover the parts of her body that you are not examining. If the patient is wearing a skirt, a discreet examination can be conducted simply by removing the underwear.
2. Ask the patient to bend her knees and separate her legs, then examine the vulva, anus and perineum.
3. Palpate the inguinal region in order to feel for the presence or absence of enlarged lymph nodes.
4. Palpate the abdomen for pelvic masses and tenderness, taking care not to hurt the patient. Record the presence or absence of:
 - ulcers;
 - vaginal discharge, noting the type, colour and amount.

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

ABDOMINAL EXAMINATION

Palpate the abdomen feeling for areas of tenderness and for swellings. Check particularly for tenderness deep in the pelvis. Examine the pubic area and palpate for any inguinal lymph nodes.

GENITAL EXAMINATION

Inspect the labia, the urethral meatus, clitoris, introitus and the perineum and perianal areas. Note any discharge, ulcers, warts or growths.

SPECULUM EXAMINATION

Wear gloves to carry out a speculum and manual examination. Separate the labia and insert a warm well-lubricated bivalve speculum and inspect the vaginal walls and the cervix. Look carefully for ulcers, warts and cervical and vaginal discharge. In order to carry out a speculum examination, the patient should lie with her legs bent at the knees and her feet and knees separated. A good, bright light source is necessary in order to inspect inside the vagina. If you need to take specimens for laboratory tests make sure that the speculum is lubricated with water only. Take the specimens while the speculum is inside the vagina and while inspecting the vagina and cervix directly.

BIMANUAL EXAMINATION

When you have completed inspecting the vagina and cervix, remove the speculum, insert the index and middle fingers of your hand into the vagina and carry out a digital bimanual examination. The bimanual

examination is carried out with the two fingers inside the vagina and with the other hand placed on the lower abdomen. With your fingers inside the vagina and the other hand on the abdomen, examine the pelvis for swellings and tenderness. Check for cervical motion tenderness by moving the cervix gently laterally. Remember that if a patient has extensive, painful genital ulcers, it may not be possible to perform a speculum examination. Do not hurt your patient.

Specimen collection

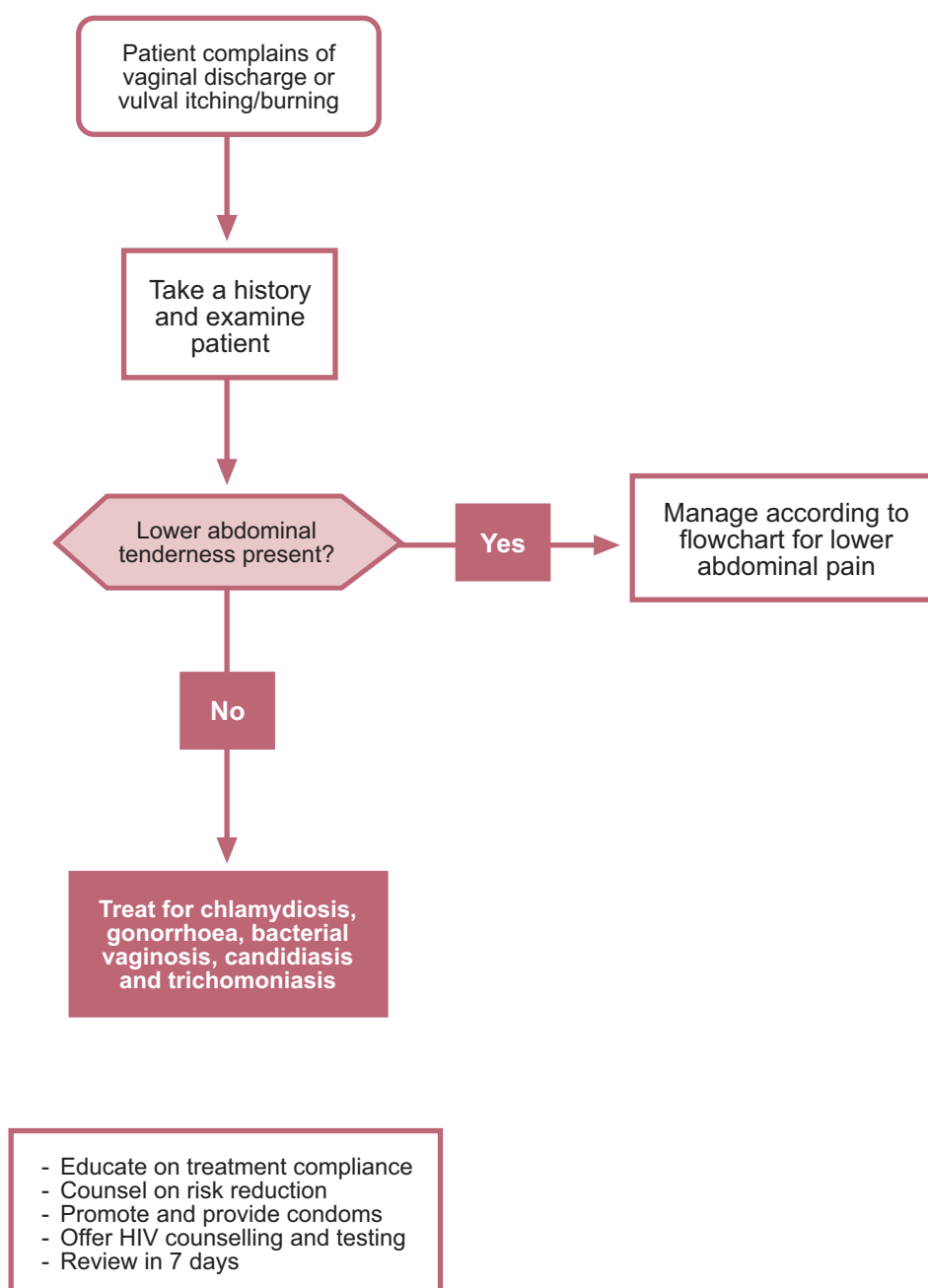
If it is necessary to take specimens, follow the laboratory protocol that has been developed for the clinic. Specimens should be collected while the speculum is inside the vagina. The procedure is as follows:

- Take one swab from the vagina behind the cervix (high vaginal swab); make a smear of this on a microscope slide and place the swab into Stuarts transport medium.
- Wipe the cervix with a cotton wool swab and discard the swab.
- Take a swab and insert it into the cervix, roll it around inside the cervix for 30 seconds and then remove it and make a smear on a glass slide, then place the swab into transport medium for the culture of *N. gonorrhoeae*.
- Take another swab and insert it into the cervix, roll it about inside the cervix for 30 seconds and then remove it and place it in transport medium for the detection of chlamydial antigen by ELISA test.
- If there are ulcers inside the vagina, on the cervix or on the external genitalia or perineum, take a swab of ulcer exudates by rolling the swab over the surface of the ulcer, make a smear of this and then place the swab in another bottle of transport medium for the culture of bacteria such as *H. ducreyi*.
- If there are genital ulcers, take another ulcer swab and this time place it in transport medium for the detection of herpes simplex virus by ELISA test.
- Finally, after the examination is over, take 10mls of venous blood from the arm and place it in a clotted blood tube and send it to the laboratory for syphilis tests.
- If the patient has agreed and would like to have an HIV test then pre-test counsel the patient and take another specimen of blood for HIV antibody tests.

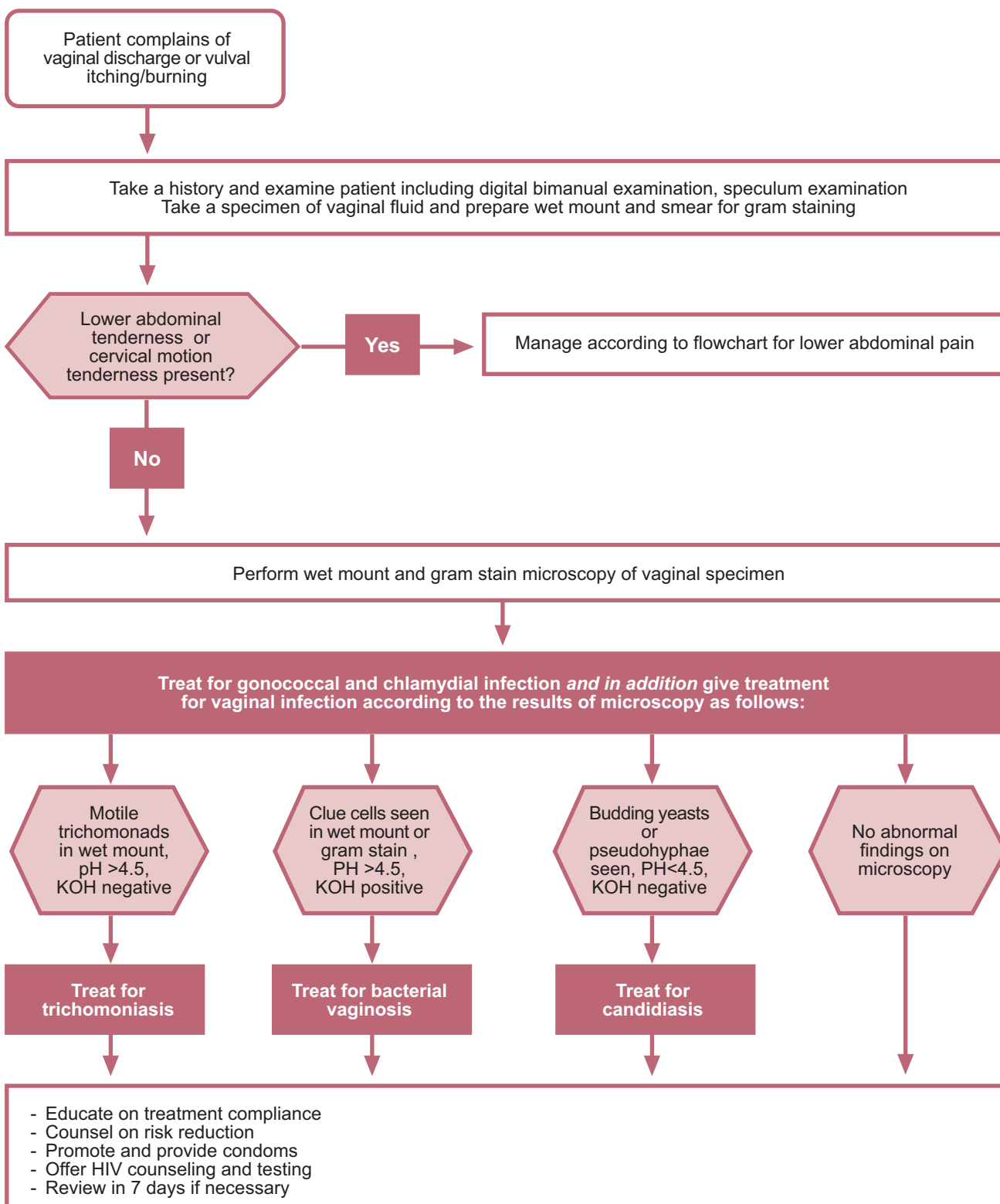
ANNEX 4

Flowcharts for the diagnosis and treatment of STI-associated syndromes

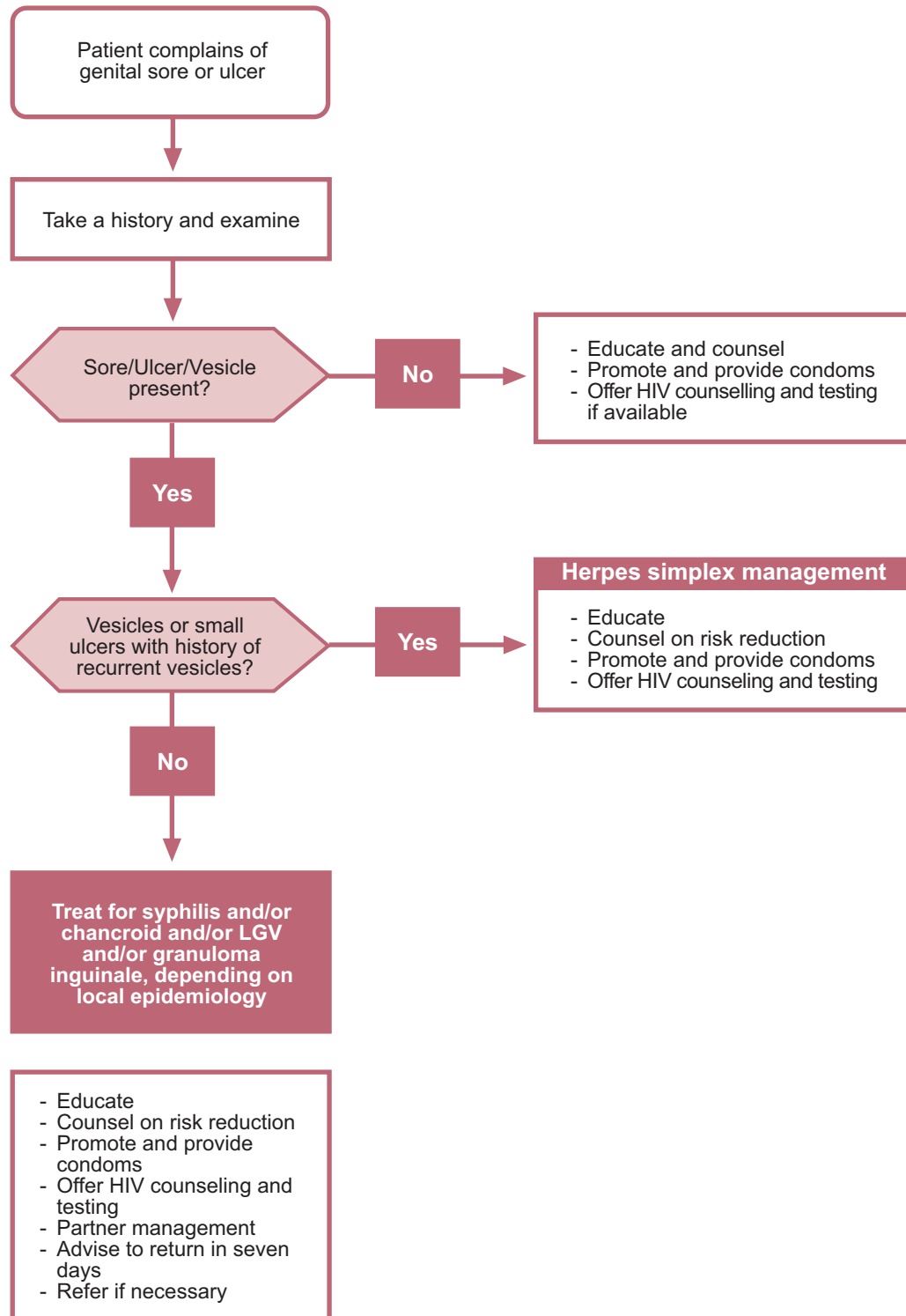
Management of vaginal discharge when laboratory facilities are not available



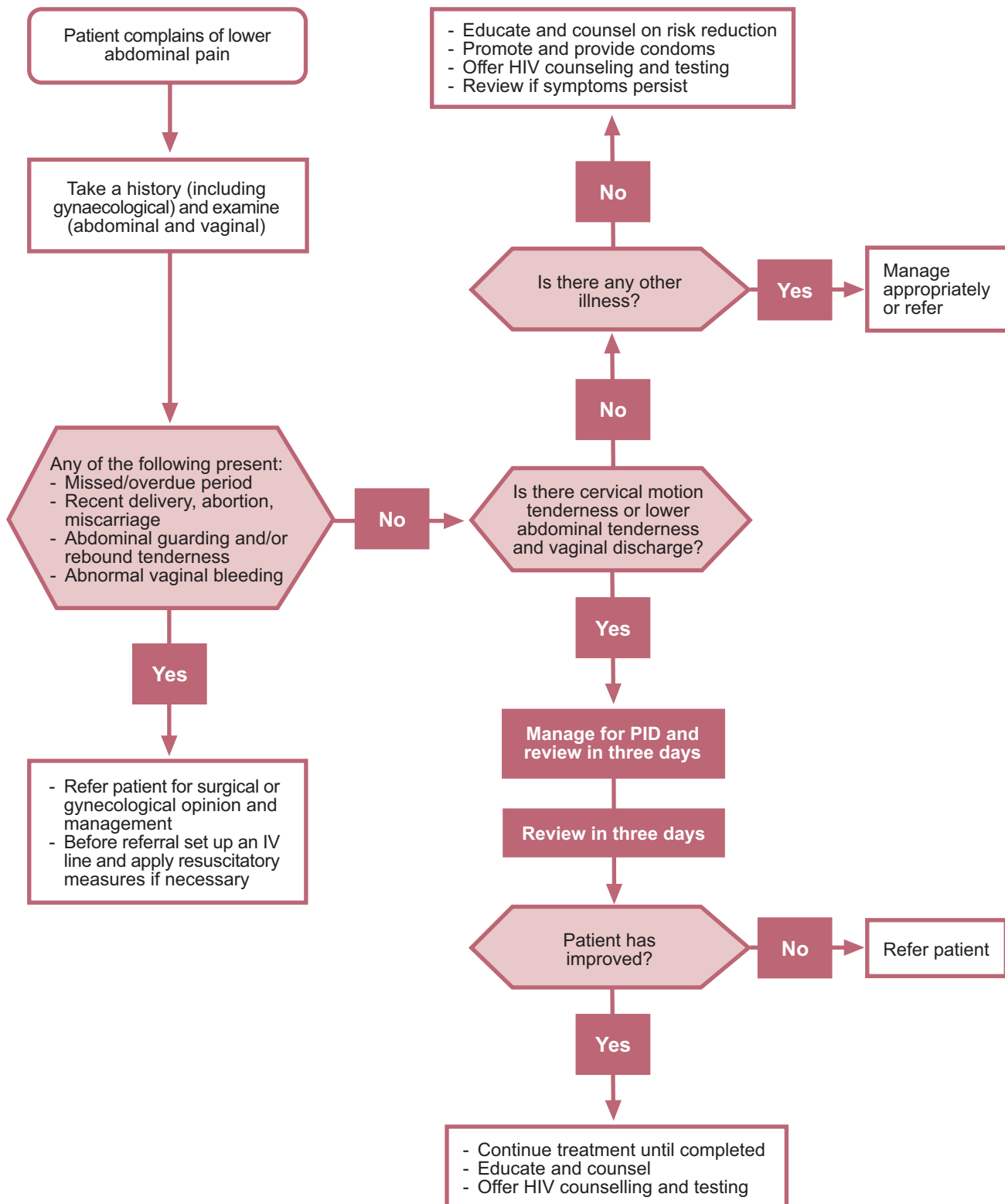
Management of vaginal discharge when speculum examination is possible and laboratory facilities are available



Management of genital ulcers



Management of lower abdominal pain in women



Outpatient therapy for PID

Recommended syndromic treatment:

All patients should be treated for gonococcal, chlamydial and anaerobic bacterial infection. Patients treated on an outpatient basis should be reviewed 72 hours after starting treatment, or sooner if their symptoms become worse. At the 72-hour review, if patients are not improving, they should be referred for specialist (surgical or gynecological) opinion. If they are improving, treatment should be continued for a total of 14 days. Intrauterine contraceptive devices should be removed after starting therapy.

On an outpatient basis PID may be treated as follows:

Single-dose therapy for uncomplicated gonorrhoea with ceftriaxone 250 mg by intramuscular injection (other single-dose regimens for gonorrhoea have not been assessed in acute PID)

Plus

Treatment for chlamydial infection with doxycycline, 100 mg orally twice daily, or tetracycline, 500 mg orally, 4 times daily for 14 days

Plus

Treatment for anaerobic bacterial infection with metronidazole, 400 or 500 mg orally, twice daily for 14 days.

Review the patient in 72 hours after starting treatment and, if she has improved, continue treatment. If she has not improved, refer her to a health facility where specialist surgical and gynaecological opinion may be obtained

Notes

- Patients taking metronidazole should avoid taking alcohol.
- Metronidazole is contraindicated in the first trimester of pregnancy.
- Where single-dose therapy for gonorrhoea is not available, trimethoprim (80 mg) / sulphamethoxazole (400 mg) is given in a dose of 10 tablets daily for 3 days and then 2 tablets twice daily for 10 days. *This regimen should only be used in areas where trimethoprim/sulphamethoxazole has been shown to be effective in the treatment of uncomplicated gonorrhoea.*

The intrauterine contraceptive device (IUD) is a risk factor for the development of PID. It is recommended that the IUD be removed soon after antimicrobial therapy for PID is commenced. When an IUD is removed contraceptive counselling is necessary.

All patients treated on an outpatient basis should be reviewed 72 hours after commencing treatment. If the patient is not improving, she should be admitted or referred for admission and for specialist opinion and management. IUD is not recommended for women with multiple sex partners.

Inpatient therapy for PID

Recommended syndromic treatment:

Acute PID may be a life-threatening condition as it can lead to the development of intra-abdominal abscesses and peritonitis. Patients may develop septicaemia and septic shock. Bowel fistulae are also known to occur. Therefore, women who have PID and also signs of tubo-ovarian abscess or pelvic and generalized peritonitis need to be referred for inpatient management. In addition, women with lower abdominal pain in whom a surgical cause cannot be ruled out and women in whom a complication of pregnancy, such as threatened, incomplete or septic abortion, and retained products of conception, need to be referred for specialist opinion.

For patients hospitalized with acute PID any of the following three regimens may be used:

Regimen 1

Ceftriaxone 250 mg by intramuscular daily for at least 2 days after the patient has improved

Plus

Treatment for chlamydial infection with doxycycline, 100mg orally twice daily or tetracycline, 500mg orally, 4 times daily for 14 days

Plus

Treatment for anaerobic bacterial infection with metronidazole, 400 mg (or 500 mg) orally, twice daily for 14 days OR Chloramphenicol 500mg orally or IV 4 times daily for 10 days

Regimen 2

Clindamycin 900mg IV every 8 hours for at least 2 days *after* the patient has improved

Plus

Gentamicin 1.5mg/kg IV 8 hourly for at least 2 days *after* the patient has improved

Followed by

Doxycycline, 100 mg orally twice daily, or tetracycline, 500 mg orally, 4 times daily for 14 days AND Metronidazole 400 mg (or 500 mg) orally or by intravenous injection, twice daily, OR Chloramphenicol, 500 mg orally or by intravenous injection, 4 times daily.

Regimen 3

Ciprofloxacin 500 mg orally twice daily for at least 2 days *after* the patient has improved

Plus

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

Plus

Metronidazole 400 mg (or 500 mg) orally or by intravenous injection, twice daily, OR Chloramphenicol, 500 mg orally or by intravenous injection, 4 times daily.

Notes

- Patients taking metronidazole should avoid taking alcohol.
- Metronidazole is contraindicated in the first trimester of pregnancy.
- The intrauterine contraceptive device (IUD) is a risk factor for the development of PID. It is recommended that the IUD be removed soon after antimicrobial therapy for PID is commenced. When an IUD is removed contraceptive counselling is necessary.

ANNEX 5

Treatment of specific STIs

There are a large number of STIs and each infection is treated differently. The recommended treatment regimens are based on the results of clinical trials carried out in different parts of the world and it is possible that the local antimicrobial susceptibility of pathogens may vary. It is important to carry out studies periodically to determine local drug resistance and susceptibility patterns.

Syphilis

Early syphilis (Primary, secondary, or latent syphilis of not more than two years duration)

- Benzathine benzylpenicillin, 2.4 million IU, by intramuscular injection, OR,
- Procaine benzylpenicillin, 1.2 million IU daily, by intramuscular injection, for 10 consecutive days.

Alternative regimen for penicillin-allergic non-pregnant patients:

- Doxycycline, 100 mg orally, twice daily for 15 days, OR
- Tetracycline, 500 mg orally, 4 times daily for 15 days

Alternative regimen for penicillin-allergic pregnant patients:

Erythromycin 500 mg orally, 4 times a day for 15 days

Late latent syphilis (Syphilis of more than two years duration in the absence of any symptoms and signs)

- Benzathine benzylpenicillin, 2.4 million IU by intramuscular injection, once weekly for 3 weeks, OR,
- Procaine benzylpenicillin, 1.2 million IU, by intramuscular injection, once daily for 20 days.

Alternative regimen for penicillin-allergic non-pregnant patients:

- Doxycycline, 100 mg orally, twice daily for 30 days, OR,
- Tetracycline, 500 mg orally, 4 times daily for 30 days

Alternative regimen for penicillin-allergic pregnant patients:

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

Late syphilis (Gummatous, neurologic and cardiovascular syphilis of any duration)

Aqueous benzylpenicillin, 12-24 million IU by intravenous injection, administered daily in doses of 2-4 million IU every 4 hours for 14 days.

Alternative regimen:

Procaine benzylpenicillin, 1.2 million IU by intramuscular injection, once daily, and probenecid, 500 mg orally, 4 times daily, both for 10-14 days.

Alternative regimens for penicillin-allergic non-pregnant patients:

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

Alternative regimens for penicillin-allergic pregnant patients:

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

Congenital syphilis

All infants born to seropositive mothers should be treated with a single intramuscular dose of benzathine benzylpenicillin, 50,000 IU/kg whether or not the mothers were treated during pregnancy (with or without penicillin). Hospitalization is recommended for all symptomatic babies born to mothers who were seropositive.

Early congenital syphilis (up to two years of age) AND infants with abnormal cerebrospinal fluid:

- Aqueous benzylpenicillin, 50,000 IU/kg by intramuscular or intravenous injection, daily in 2 divided doses for a minimum of 10 days, OR,

- Procaine benzylpenicillin, 50,000 IU/kg by intramuscular injection, as a single daily dose for 10 days.
- Congenital syphilis of 2 or more years' duration:
- Aqueous benzylpenicillin, 200 000 – 300 000 IU/kg/day by intravenous, OR, intramuscular injection, in divided doses for 10-14 days.

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

Erythromycin, 7.5-12.5 mg/kg orally, 4 times daily for 30 days.

Chancroid

- Ciprofloxacin, 500 mg orally, twice daily for 3 days, OR,
- Erythromycin base, 500 mg orally, 4 times daily for 7 days, OR,
- Azithromycin, 1 g orally, as a single dose.

Alternatively, use:

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

Management of lesions:

No special treatment is required. Ulcerative lesions should be kept clean, and fluctuant lymph nodes should be aspirated as required through the surrounding healthy skin. Incision and drainage or excision of nodes may delay healing and is not recommended.

Granuloma inguinale (Donovanosis)

- Azithromycin, 1 g orally on first day, then 500 mg orally once a day for 14 days, OR,
- Doxycycline, 100 mg orally, twice daily for 14 days

Alternatively, use:

- Erythromycin, 500 mg orally, 4 times daily for 14 days, OR,
- Tetracycline, 500 mg orally, 4 times daily for 14 days, OR,
- Trimethoprim (80 mg)/sulfamethoxazole (400 mg), 2 tablets orally, twice daily for a minimum of 14 days

Gonorrhoea

Uncomplicated anogenital infection

- Ciprofloxacin, 500 mg orally, as a single dose, OR,
- Azithromycin, 2 g orally, as a single dose, OR,
- Ceftriaxone, 125 mg by intramuscular injection, as a single dose, OR,
- Cefixime, 400 mg orally, as a single dose, OR,
- Spectinomycin, 2 g by intramuscular injection, as a single dose.

Disseminated gonococcal infection

- Ceftriaxone, 1g by intramuscular or intravenous injection, once daily for 7 days (alternative third-generation cephalosporins may be required where ceftriaxone is not available, but more frequent administrations will be needed), OR,
- Spectinomycin, 2g by intramuscular injection, twice daily for 7 days.

For gonococcal meningitis and endocarditis the same dosages apply but the duration of therapy will need to be increased to 4 weeks for endocarditis.

Adult gonococcal conjunctivitis

- Ceftriaxone, 125 mg by intramuscular injection as a single dose, OR,
- Spectinomycin, 2 g by intramuscular injection as a single dose, OR,
- Ciprofloxacin, 500 mg orally, as a single dose.

Alternative regimen where the recommended agents are not available:

Kanamycin, 2 g by intramuscular injection as a single dose.

Follow-up:

Careful monitoring of clinical progress is important.

Neonatal gonococcal conjunctivitis

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

Alternative regimen where ceftriaxone is not available:

- Kanamycin, 25 mg/kg by intramuscular injection as a single dose (maximum of 75 mg), OR,
- Spectinomycin, 25 mg/kg by intramuscular injection as a single dose (maximum of 75 mg).

Follow-up:

Patients should be reviewed after 48 hours.

Prevention of ophthalmia neonatorum:

Using timely eye prophylaxis should prevent gonococcal ophthalmia neonatorum. The infant's eyes should be carefully cleaned immediately after birth and the application of 1% silver nitrate solution or 1% tetracycline ointment to the eyes of all infants at the time of delivery is strongly recommended as a prophylactic measure. However, ocular prophylaxis provides poor protection against *C. trachomatis* conjunctivitis.

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

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

Alternative regimen where ceftriaxone is not available:

- Kanamycin, 25 mg/kg by intramuscular injection as a single dose, to a maximum of 75 mg, OR,
- Spectinomycin, 25 mg/kg by intramuscular injection as a single dose, to a maximum of 75 mg.

Chlamydial infection

Uncomplicated urethral, endocervical, or rectal infections

- Doxycycline, 100 mg orally, twice daily for 7 days, OR,
- Azithromycin, 1 g orally, in a single dose

Alternative regimens:

- Amoxicillin, 500 mg orally, three times a day for 7 days, OR,
- Erythromycin, 500 mg orally, four times a day for 7 days, OR,
- Ofloxacin, 300 mg orally, twice a day for 7 days, OR,
- Tetracycline, 500 mg orally, four times a day for 7 days.

Note: Tetracyclines are contraindicated during pregnancy and lactation.

Chlamydial infection during pregnancy

- Erythromycin, 500 mg orally four times a day for 7 days, OR,
- Amoxicillin, 500 mg orally three times a day for 7 days.

Note: Erythromycin estolate is contraindicated during pregnancy because of drug-related hepatotoxicity, so only erythromycin base or erythromycin ethylsuccinate should be used.

Neonatal chlamydial conjunctivitis

- All cases of conjunctivitis in the newborn should be treated for both *N. gonorrhoeae* and
- *C. trachomatis*, because of the possibility of mixed infection.
- Erythromycin syrup, 50 mg/kg per day orally, in 4 divided doses for 14 days

Alternative regimen:

Trimethoprim 40mg with sulphamethoxazole 200mg orally, twice daily for 14 days.

Lymphogranuloma venereum

Results of controlled trials on the treatment of lymphogranuloma venereum have not been published, and recommendations are based on expert opinion.

- Doxycycline, 100 mg orally, twice daily for 14 days, OR,
- Erythromycin, 500 mg orally, 4 times daily for 14 days.

Alternative regimens:

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

Notes

- Tetracyclines are contraindicated in pregnancy.
- Fluctuant lymph nodes should be aspirated through healthy skin. Incision and drainage or excision of nodes may delay healing.
- Some patients with advanced disease may require treatment for longer than 14 days, and sequelae such as strictures and/or fistulae may require surgery.

Genital herpes

First clinical episode

There is no known cure for genital herpes, but the course of symptoms can be modified if systemic therapy with acyclovir, or its analogues, is started as soon as possible following the onset of symptoms. For the first clinical episode of genital herpes it is advisable to give specific anti-herpes virus treatment. Give the patient:

- Acyclovir, 200 mg orally, 5 times daily for 7 days, OR,
- Acyclovir, 400 mg orally, 3 times daily for 7 days, OR,
- Famciclovir, 250 mg, 3 times daily for 7 days, OR,
- Valaciclovir, 1 g, 2 times daily for 7 days

Recurrences

- Acyclovir, 200mg orally, 5 times daily for 5 days, OR,
- Acyclovir 400mg 3 times daily for 5 days, OR,
- Acyclovir 800mg orally twice daily for 5 days, OR,
- Famciclovir 125mg orally twice daily for 5 days, OR,
- Valaciclovir 500mg orally twice daily for 5 days, OR,
- Valaciclovir 1000mg orally once daily for 5 days

Suppressive treatment

- Acyclovir, 400 mg orally, 2 times daily, continuously, OR,
- Famciclovir 250mg orally twice daily, OR,
- Valaciclovir 500mg orally once daily, OR,
- Valaciclovir 1000mg orally once daily

Herpes in pregnancy

During the first clinical episode of genital herpes, treat with oral acyclovir.

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

Trichomoniasis

Adults

- Metronidazole, 2 g orally, in a single dose, OR,
- Tinidazole, 2 g orally, in a single dose.

Alternative regimen:

- Metronidazole, 400 or 500 mg orally, twice daily for 7 days, OR,
- Tinidazole, 500 mg orally, twice daily for 5 days.

Neonatal infections

- Infants with symptomatic trichomoniasis or with urogenital colonization persisting past the fourth month of life should be treated with metronidazole.
- Metronidazole, 5 mg/kg orally, 3 times daily for 5 days.

Trichomonas vaginalis urethritis

- Metronidazole, 400 or 500 mg orally, twice daily for 7 days, OR,
- Tinidazole, 500 mg, orally twice daily for 5 days.

Candidiasis

Adults

- Miconazole 200 mg intravaginally daily for 3 days, OR,
- Clotrimazole, 200 mg intravaginally, daily for 3 days, OR,
- Clotrimazole, 500 mg intravaginally, as a single dose, OR,
- Fluconazole, 150 mg orally, as a single dose.

Alternative regimen:

Nystatin, 100 000 IU intravaginally, daily for 14 days

Vulvovaginal candidiasis during pregnancy

Only topical azoles should be used to treat pregnant women:

Miconazole, clotrimazole, butoconazole and terconazole.

Recurrences :

It is recommended that predisposing factors, such as antibiotic use, the use of antiseptic / antibiotic vaginal preparations or vaginal douching be reduced or eliminated. Simultaneous treatment of a rectal focus with oral nystatin or fluconazole is not useful in preventing recurrences. Other underlying factors for recurrent vulvovaginal candidiasis include uncontrolled diabetes mellitus, immunosuppression, and corticosteroid use.

Vulvovaginal candidiasis and HIV infection

Candidiasis at several sites, including the vulva and vagina, is an important correlate of HIV disease. It is often quite severe and frequently relapses.

Prolonged treatment is generally required, and chronic suppressive therapy is frequently employed.

Candidial balanoposthitis

Topical application of a nystatin or clotrimazole lotion or cream twice daily for 7 days.

Bacterial vaginosis

Adults

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

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

Alternative regimens:

- Metronidazole, 2 g orally, as a single dose, OR,
- Clindamycin vaginal cream 2%, 5 g at bedtime intravaginally for 7 days, OR,
- Metronidazole gel 0.75%, 5 g twice daily intravaginally for 5 days, OR,
- Clindamycin, 300 mg orally twice daily for 7 days.

Follow-up:

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

Bacterial vaginosis and surgical procedures

Women with bacterial vaginosis, scheduled to undergo reproductive tract surgery or a therapeutic abortion, should receive treatment with metronidazole.

Bacterial vaginosis in pregnant women

There is evidence that bacterial vaginosis is associated with an increased incidence of adverse pregnancy outcomes (e.g., premature rupture of membranes, pre-term delivery and low birth-weight). Symptomatic pregnant women should be treated, and those with a history of previous pre-term delivery should be screened to detect asymptomatic infections. Pregnant women with recurrence of symptoms should be re-treated. Screening of asymptomatic pregnant women without a history of prior pre-term delivery is not recommended.

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

Notes

- Metronidazole is not recommended by the manufacturer for use in the first trimester of pregnancy, but it may be used during the second and third trimesters.
- Lower doses of metronidazole are recommended throughout pregnancy, to reduce the risks of any adverse effects.

Alternative regimens:

- Metronidazole, 2 g orally, as a single dose, OR,
- Clindamycin, 300 mg orally twice daily for 7 days, OR,
- Metronidazole gel, 0.75%, 5 g twice daily intravaginally for 7 days.

Genital warts

Chemical

Patient applied:

- **Podofilox** 0.5% solution or gel twice daily for 3 days, followed by 4 days of no treatment, and the cycle repeated up to 4 times. Total volume of podofilox should not exceed 0.5ml per day, OR,
- **Imiquimod** 5% cream applied with a finger at bedtime, left on overnight, 3 times a week for as long as 16 weeks. The treatment area should be washed with soap and water 6-10 hours after application.

Note: The safety of both podofilox and imiquimod during pregnancy has not been established.

Provider administered:

- **Podophyllin** 10-25% in compound tincture of benzoin, applied carefully to the warts, avoiding normal tissue. External genital and perianal warts should be washed thoroughly 1-4 hours after the application of podophyllin. Podophyllin applied to warts on vaginal or anal epithelial surfaces should be allowed to dry before removing the speculum or anoscope. Treatment should be repeated at weekly intervals, OR,
- **Trichloroacetic acid (TCA)** (80-90%) applied carefully to the warts avoiding normal tissue, followed by powdering of the treated area with talc or sodium bicarbonate (baking soda) to remove unreacted acid. Repeat application at weekly intervals.

Notes

- Some experts advise against the use of podophyllin for anal warts.
- Large amounts of podophyllin should not be used because it is toxic and easily absorbed.
- Do not use during pregnancy and lactation.

Physical

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

Vaginal warts:

- Cryotherapy (with liquid nitrogen), OR,
- Podophyllin, 10-25% (allow to dry before removing speculum), OR,
- Trichloroacetic acid, 80-90%

Cervical warts:

Surgical removal is advised

Notes

- Management should include consultation with an expert and regular pap smears.
- *Do not use* TCA or podophyllin; most experts advise against the use of podophyllin or trichloroacetic acid for cervical warts.

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

- Meatal and urethral warts
- Cryotherapy
- Surgical removal

Molluscum contagiosum

The lesions of molluscum contagiosum need to be individually destroyed. Concentrated phenol should be applied to each lesion after the lesion has been pierced with a sharpened wooden orange stick or a needle.

Alternatively:

Each lesion should be removed by cryotherapy

Notes

- Care should be taken not to contaminate normal skin with phenol.
- *Do not* let the phenol get into the eyes.
- The treatment should be provider-administered.

Pediculosis pubis (pubic lice)

- **Lindane**, 1% lotion or cream, rubbed gently but thoroughly into the infested area and adjacent hairy areas and washed off after 8 hours, OR,
- **Lindane** (1%) shampoo, applied for 4 minutes and then thoroughly washed off, OR,
- **Pyrethrins plus piperonyl butoxide** applied to the infested and adjacent hairy areas and washed off after 10 minutes. Re-treatment is indicated after 7 days if lice are found or eggs are observed at the hair-skin junction. Clothing or bed linen that may have been contaminated by the patient in the two days prior to

the start of the treatment should be washed and well dried, or dry-cleaned, OR,

- **Permethrin 5%** cream applied to the infested and adjacent hairy areas nightly for 3 nights; patients may bathe before reapplying the product and should bathe 24 hours after the final application.

Notes

- Lindane is not recommended for pregnant or lactating women.
- Pediculosis of the eyelashes should be treated by the application of an occlusive ophthalmic ointment to the eyelid margins daily for 10 days to smother lice and nits. The ointment should not be applied to the eyes.

Scabies

Adults, adolescents and older children:

- **Lindane 1%** lotion or cream applied thinly to all areas of the body from the neck down and washed off thoroughly after 8 hours, OR,
- **Permethrin cream (5%)** applied to the entire body from the neck down, nightly for
- 3 nights; patients may bathe before reapplying the product and should bathe 24 hours after the final application, OR,
- **Benzyl benzoate 25%**, lotion, applied to the entire body from the neck down, nightly for 2 nights; patients may bathe before reapplying the drug and should bathe 24 hours after the final application, OR,
- **Crotamiton 10%**, lotion, applied to the entire body from the neck down, nightly for 2 nights and washed off thoroughly 24 hours after the second application; an extension to 5 nights is found necessary in some geographical areas (crotamiton has the advantage of an antipruritic action), OR,
- **Sulphur 6%, in petrolatum** applied to the entire body from the neck down, nightly for 3 nights; patients may bathe before reapplying the product and should bathe 24 hours after the final application.

Note

- Lindane is not recommended for pregnant or lactating women.
- Resistance to Lindane has been reported in some areas.

Infants, children under 10 years of age, pregnant or lactating women:

- Crotamiton 10%, as above, OR,
- Sulphur 6%, as above, OR,
- Permethrin 5%, cream, applied in the same way as the sulphur regimen described above.
- Contacts
- Sexual contacts and close household contacts should be treated as above.
- Special considerations
- Pruritus may persist for several weeks after adequate therapy.
- A single treatment after 1 week may be appropriate if there is no clinical improvement.
- Additional weekly treatments are warranted only if live mites can be demonstrated.
- If re-infection can be excluded and compliance assured, topical anti-inflammatory therapy may be considered, as an allergic reaction may be the reason for clinical manifestation.
- Clothing or bed linen that may have been contaminated by the patient in the 2 days prior to the start of treatment should be washed and well dried, or dry-cleaned.

ANNEX 6

Reporting

Reporting of STI episodes in sex workers attending health facilities

Name of health centre _____

Period covered (from) _____ (to) _____

Tally sheet completed by _____

Date tally sheet completed _____

Diagnosis	Age group (years)						Total
	< 15	15-19	20-29	30-39	40-49	> 49	
Vaginal discharge	0000	0000	0000	0000	0000	0000	
	0000	0000	0000	0000	0000	0000	
	0000	0000	0000	0000	0000	0000	
	0000	0000	0000	0000	0000	0000	
Lower abdominal pain	0000	0000	0000	0000	0000	0000	
	0000	0000	0000	0000	0000	0000	
	0000	0000	0000	0000	0000	0000	
	0000	0000	0000	0000	0000	0000	
Genital ulcers	0000	0000	0000	0000	0000	0000	
	0000	0000	0000	0000	0000	0000	
	0000	0000	0000	0000	0000	0000	
	0000	0000	0000	0000	0000	0000	
Inguinal bubo	0000	0000	0000	0000	0000	0000	
	0000	0000	0000	0000	0000	0000	
	0000	0000	0000	0000	0000	0000	
Other STIs	0000	0000	0000	0000	0000	0000	
	0000	0000	0000	0000	0000	0000	
	0000	0000	0000	0000	0000	0000	
No STIs found	0000	0000	0000	0000	0000	0000	
	0000	0000	0000	0000	0000	0000	
	0000	0000	0000	0000	0000	0000	
	0000	0000	0000	0000	0000	0000	
New clients attending for registration and check-up	0000	0000	0000	0000	0000	0000	
	0000	0000	0000	0000	0000	0000	
	0000	0000	0000	0000	0000	0000	
	0000	0000	0000	0000	0000	0000	
Clients attending for follow-up after treatment	0000	0000	0000	0000	0000	0000	
	0000	0000	0000	0000	0000	0000	
	0000	0000	0000	0000	0000	0000	
	0000	0000	0000	0000	0000	0000	
	0000	0000	0000	0000	0000	0000	
Total							

Note: Each time you see a client who is attending for a routine visit put a line through one of the zeros "O" in the appropriate row and column. In addition, indicate in the appropriate row and column those clients who are new or are attending for a follow-up after having received treatment for an infection found previously.

Reporting of STI episodes by etiological diagnosis in sex workers attending health facilities

Name of health centre _____

Period covered (from) _____ (to) _____

Tally sheet completed by _____

Date tally sheet completed _____

Diagnosis	Age group (years)						Total
	< 15	15-19	20-29	30-39	40-49	> 49	
Gonococcal cervicitis	00000	00000	00000	00000	00000	00000	
	00000	00000	00000	00000	00000	00000	
Chlamydial cervicitis	00000	00000	00000	00000	00000	00000	
	00000	00000	00000	00000	00000	00000	
Pelvic inflammatory disease	00000	00000	00000	00000	00000	00000	
	00000	00000	00000	00000	00000	00000	
Bacterial vaginosis	00000	00000	00000	00000	00000	00000	
	00000	00000	00000	00000	00000	00000	
Chancroid	00000	00000	00000	00000	00000	00000	
	00000	00000	00000	00000	00000	00000	
Genital herpes	00000	00000	00000	00000	00000	00000	
	00000	00000	00000	00000	00000	00000	
Primary syphilis	00000	00000	00000	00000	00000	00000	
	00000	00000	00000	00000	00000	00000	
Lymphogranuloma venereum	00000	00000	00000	00000	00000	00000	
	00000	00000	00000	00000	00000	00000	
Granuloma inguinale	00000	00000	00000	00000	00000	00000	
	00000	00000	00000	00000	00000	00000	
Latent syphilis	00000	00000	00000	00000	00000	00000	
	00000	00000	00000	00000	00000	00000	
No infection found	00000	00000	00000	00000	00000	00000	
	00000	00000	00000	00000	00000	00000	
	00000	00000	00000	00000	00000	00000	
Total							

Note: Each time you see a client who has been found to have an STI confirmed by laboratory tests put a line through one of the zeros "O" in the appropriate row and column.