



THE REPUBLIC OF UGANDA  
MINISTRY OF HEALTH

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**SEXUALLY TRANSMITTED INFECTIONS**  
**TRAINING MANUAL**  
**FOR TRAINERS OF**  
**OPERATIONAL LEVEL HEALTH WORKERS IN UGANDA**

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**September 2003**

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## ACRONYMS

ACP	AIDS Control Programme
AIM	AIDS Integrated Model district programme
AIDS	Acquired immuno-deficiency syndrome
ART	Anti retroviral therapy
ARV	Anti retroviral
BV	Bacterial vaginosis
ELISA	Enzyme linked immuno-sorbent assay
FP	Family planning
FTA	Flourescent treponemal antibody
GUD	Genital ulcer disease
HBV	Hepatitis B Virus
HIV	Human immuno-deficiency virus
HSV	Herpes simplex virus
IU	International units
IUCD	Intra uterine contraceptive device
LCR	Ligase chain reaction
LGV	Lymphogranuloma venerium
MCH	Maternal Child Health
MU	Mega units
NGU	Non gonococcal urethritis
PCR	Polymerase chain reaction
PHC	Primary Health care
PID	Pelvic inflammatory disease
RPR	Rapid plasma regain
STD	Sexually transmitted Disease
STI	Sexually transmitted infection
TOM	Tubo-ovarian mass
UDS	Urethral discharge syndrome
VCT	Voluntary counseling and HIV testing
VDRL	Venereal Disease Research Laboratories
HPV	Human papilloma virus

## ACKNOWLEDGEMENTS

This training manual was updated with technical assistance and financial support provided by the AIDS Integrated Model District Programme (AIM) to the STD Control Unit of the National STD/AIDS Control Programme of the Ministry of Health. The STD/AIDS Control Programme is particularly grateful to Dr. Paul Waibale, Dr Edward Semafumu and Dr Samson Haumba of the AIM District Programme for their facilitation and support. Consultancy work was undertaken by Dr. Wilford Kirungi, Medical Epidemiologist, STD/AIDS Control Programme. Dr. Fred Kambugu, Head STD Unit, STD/AIDS Control Programme provided invaluable suggestions and guidance.

We thank the participants of the workshop that was held to review the draft for their invaluable contribution and insights. Curriculum critique and guidance was provided by Mr. Ignatio Tabaro of the National Curriculum Development Centre, Kyambogo and Mr. Rwandembo, the Director, Paramedical Training Schools in Mulago.

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## INTRODUCTION

Sexually transmitted infections constitute a major cause of morbidity and mortality world wide, particularly in developing countries. Their public health importance draws from their complications which disproportionately affect women and newborns, their reproductive health consequences and the fact that they facilitate the transmission of HIV. However, all STIs are preventable and most can be cured.

Effective STI case management is the cornerstone for STD control through breaking the chain of transmission from infected to non infected persons. In Uganda, the syndromic approach to STI case management has been adopted as a cost effective intervention for STD case management in primary health care facilities. With syndromic STI case management, STD treatment can be provided at the first point of contact of the patient and the health care delivery system. It also facilitates integration of STI case management into primary health and reproductive health. Syndromic STI case management has been demonstrated to reduce the incidence of HIV infection in a randomised controlled community trail in Mwanza, Tanzania. Other studies have shown the impact of syndromic management on the reduction of HIV shedding in the genital tract.

The syndromic approach requires standardised treatment guidelines as well as availability of trained staff, drugs and support supervision. Since the mid nineties, the Ministry of Health has developed and updated standard guidelines for use in the country based on the best available evidence. In addition, training of health workers in the syndromic approach to STI case management has been decentralised to districts. Districts are now responsible for training of all health care providers in STI case management and supervising its delivery in the field.

The STD training manual for health workers in Uganda was last updated in 1995. Since then several changes have occurred in the overall landscape of STI case management. Data on aetiology and antimicrobial susceptibility of various STI syndromes in the country has become available. In addition, the sensitivity and specificity of common STD complaints for STI infections, particularly for vaginal discharge have been evaluated. Evaluation of case management has shown that the quality of STI case management is improving, but there are still some weaknesses in specific areas that still have to be addressed.

This training manual has been updated taking into account these recent developments, best practices and lessons learned. It is also designed to address the identified weakness in case management. Recommendations of the WHO technical expert panel on STD case management, held in Geneva, November, 2001 have been taken into consideration. All STD treatment guidelines have been updated. The unit on the syndromic approach has been split into seven units to stress the emphasis of this aspect of the training. To take into account other components of STI case management and control, units on counselling, prevention and community education have been extensively updated.

The purpose of this training guide is to provide practical guidance to facilitators (trainers) of operational level health workers who are expected to conduct STI case management in the health facilities. Its aim is to provide trainers with skills to train clinicians in the syndromic management of STDs, provide counselling and community education about STDs. It also provides practical information to plan, execute and evaluate the training. Its objectives are.

- To familiarise facilitators with essential training requirements for health workers conducting STI case management in the health facilities.
- To ensure consistency and quality in implementation of training health workers
- To provide technical information to the facilitators
- To assist facilitators in monitoring and evaluation of the training workshop.

## **SPECIAL NOTE TO TRAINERS:**

This manual is intended for use by trainers responsible for in-service training of operational level health care providers. The trainers should have initially undergone a training of trainers' course and should be conversant with skills for training adults. They should also be conversant with STD clinical management and working in rural health facilities. The STD Unit of the National STD/AIDS Control Programme will conduct training of trainers workshops for all districts.

The training workshop is expected to last for four to five days. Facilitators need to make preparations for the training workshop. The preparations should include drawing the list of trainees, making sure that invitation letters for the training are sent to the trainees well in advance, securing the training venue, full board accommodation facilities for the trainees, preparation of the training schedule, making provisions for teaching materials/resources etc.

The training workshop will target doctors, midwives, nurses, medical assistants and other operational level health care providers involved in STD case management. The accompanying trainees' guide will serve as trainee handouts, reference material and provide practical operational guidance during case management.

Facilitators are encouraged to use Participatory Learning Methods (PLMs) in addition to lectures. Use of PLMs promotes interactive learning and teamwork. PLMs should include exercises done in groups to facilitate team. Following group work, plenary sessions should allow for the exchange of ideas and experiences, encourage interaction, peer assessments and integration of ideas learned. The facilitators should summarise the assignments at the end of the plenary. Other teaching methods include role plays, practical (field work) and demonstrations

Arrangements for field work should include preparing the tasks for the groups, identifying field work facilities early, grouping trainees to ensure skills and professional mix, arranging transport if necessary and summarising results of field work in the plenary

Training materials facilitate training and make learning easy. A facilitator needs to have them to make his/her facilitation easier and attractive. Among the proposed materials are:

- Facilitators' guide to all facilitators
- Teaching aides like newsprint, markers, overhead projectors and transparencies
- Audio-visual aids like LCD, computer(s) for power point presentations etc

The training should use the co-facilitation process, where all facilitators work together as a team, sharing responsibilities and complementing each other during training. The aim of the facilitator is to help trainees learn usually through individual and small group discussions. The facilitator should be familiar with the subject he is covering. He/she is responsible for answering questions, discussing exercises and giving direction.

Finally, knowledge imparted should be limited to information that will be of practical and adapted to the realistic situation in rural health facilities. Participants should not learn one thing in the course only to encounter something else on return to their work.

### **Monitoring and Evaluation of Training Workshop**

The evaluation of the training workshop will be carried out at different stages.

- A diagnostic evaluation should be done at the beginning of the workshop; based on trainees expectations and requirements.
- Formative evaluation of learning processes and daily lessons should be done by interacting with trainees, exchanging views with other facilitators and through evaluating the day's activities during facilitators' meetings at the end of each day.
- Summative evaluation will be made at the end of the workshop to assess whether the workshop met the expectations of the trainees, whether objectives of the workshop were achieved using qualitative methods e.g. discussion and verbal questions.
- Pre and post test evaluation

At the end of the training, facilitators should prepare a report on the training. This report can be used as a reference material in subsequent training. It is necessary to submit the report to relevant institutions eg. Ministry of Health or development partners. The report should consist of an introduction (background, course venue and dates), objectives of the workshop, expected outcomes, workshop organisation, training methods and implementation, workshop findings/proceedings, outcomes, workshop evaluation by the trainees, constraints and issues encountered, suggestions and recommendations and follow-up actions. Annex the list of trainees, training programme and schedule, summary of daily evaluation reports and workshop summative evaluation report.

This manual has been developed based on lessons learnt from previous training workshops. Facilitators should modify the training methods and content to suit each training session. Each unit is accompanied by facilitators' notes designed to update the knowledge of the trainers. Each unit consists of a list of activities and steps to help facilitators teach the unit. In addition, each unit also has a list of recommended readings.

Facilitators are encouraged to acquaint themselves with training methods and content ahead of each session as well as working through the exercises and preparing for demonstrations or role plays. Plan ahead of time the points to emphasize while teaching the module as well as planning ways to assist the trainees through the difficult sections and how to answer questions. The course lays special emphasis on practical training through role plays, field visits as well as practical demonstrations which trainers are encouraged to prepare and use during training sessions.

We hope facilitators will find this guide useful for training and providing practical guidance to the health workers conducting STI case management in Uganda.

## UNIT 1

### **BASIC CLINICAL ANATOMY AND PHYSIOLOGY OF THE GENITAL TRACT**

**Duration:** 1 Hour, 30 Minutes.

**Introduction:**

Knowledge of the anatomy physiology and development is the basis of understanding of abnormalities and disease processes and also for provision of sex education. The main reproductive organs in the female consist of the vagina, vulva, cervix, uterus, fallopian tubes and ovaries. In the male, they consist of the penis, scrotum with testes, prostate glands, seminal vesicles, vas deferens and epididymis.

**Unit goal:**

To enable trainees to understand the normal anatomy and physiology of the reproductive organs and to use this knowledge in STD diagnosis, management and in sex education.

**Learning objectives:**

At the end of the Unit, the trainees should be able to:

- Describe the anatomy and developmental changes of the reproductive organs among males and females.
- Explain the normal physiology of the male and female reproductive organs.
- Discuss physiological and psychological changes associated with sex such as erection of the penis, lubrication of the vagina, etc.

**Content outline:**

- Anatomy of the male reproductive organs.
- Anatomy of the female reproductive organs.
- Physiology of male reproductive organs
- Physiology of the female reproductive organs.
- Growth and developmental changes of the male reproductive organs.
- Growth and developmental changes of the female reproductive organs.
- Physiological and psychological changes during sex in the male
- Physiological and psychological changes during sex in the female.

**Procedures:**

**Activity 1:** Introducing the Unit.

Step 1: Give an introductory lecture explaining the Unit and learning objective.

**Activity 2:** Describing the male and female reproductive organs:

Step 1: Display an unlabeled drawing of the male reproductive organs and ask trainees to name the different organs. Make corrections as necessary.

Step 2: Display the unlabelled drawing of female reproductive organs and ask trainees to name the different organs. Make corrections where necessary.

**Activity 3:** Discussing the normal functions of the reproductive organs.  
Step 1: let trainees describe the functions of the different parts of the male reproductive system.  
Step 2: Repeat the same for the female reproductive tract.  
Step 3: Clarify the functions trainees seem unclear about.

**Activity 4:** Discussing growth and development of sexual and reproductive organs.  
Step 1: Divide the trainees into groups to discuss developmental changes that take place i.e. pubertal, pre-pubertal, menopausal and post menopausal.  
Step 2: Let each group presents their findings during the plenary.  
Step 3: Correct any mistakes that could have arisen and wrap up.

**Activity 5:** Discussing physiological and psychological changes associated with sex.  
Step 1: Lead a brainstorming session on what sex is and the psychological and physiological changes that occur during sex  
Step 2: Conclude wrap up.

**Hints to facilitator:**

- Facilitators should encourage trainees to name the organs in their local names and indicate those which are culturally acceptable.

**Teaching materials:**

Charts and diagrams of reproductive organs, Newsprint, Markers, tape:

**Evaluation:**

- Questions and answer during sessions
- Observation of trainees

## TRAINER'S NOTES

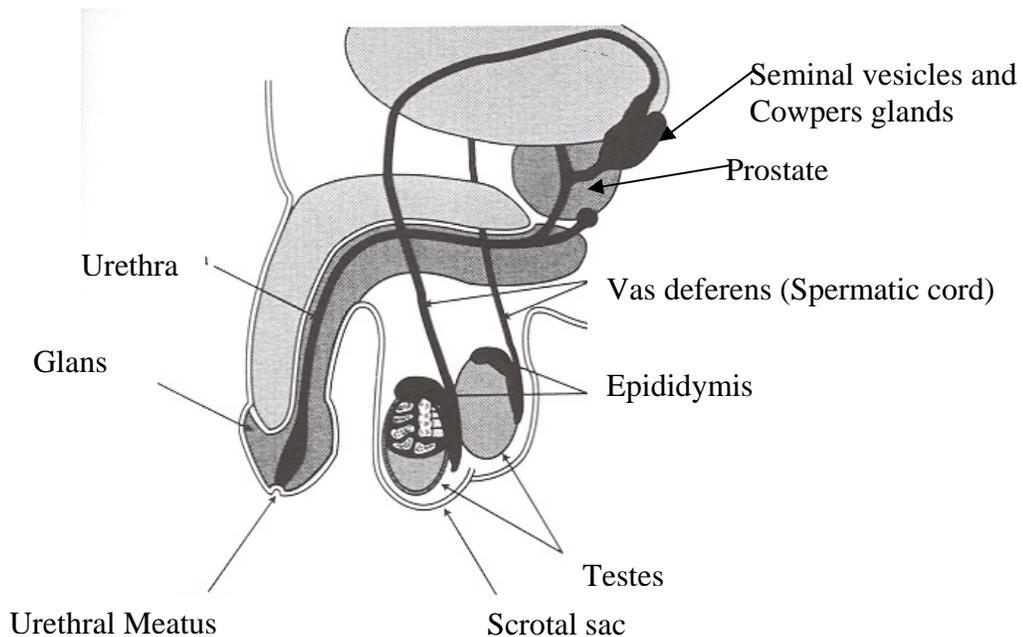
### BASIC CLINICAL ANATOMY AND PHYSIOLOGY OF THE GENITAL TRACT

Knowledge of the reproductive organs is necessary for providing sex education, STD diagnosis and management. Local names of the reproductive and sex organs and local sexual terminology should be encouraged and used.

The male reproductive organs consist of:

- the penis with the shaft, prepuce and glans penis
- the glands (Cowper's glands, prostate, seminal vesicles)
- the urethra which opens into a meatus
- the scrotum
- the testes
- the epididymis
- the vas deferens

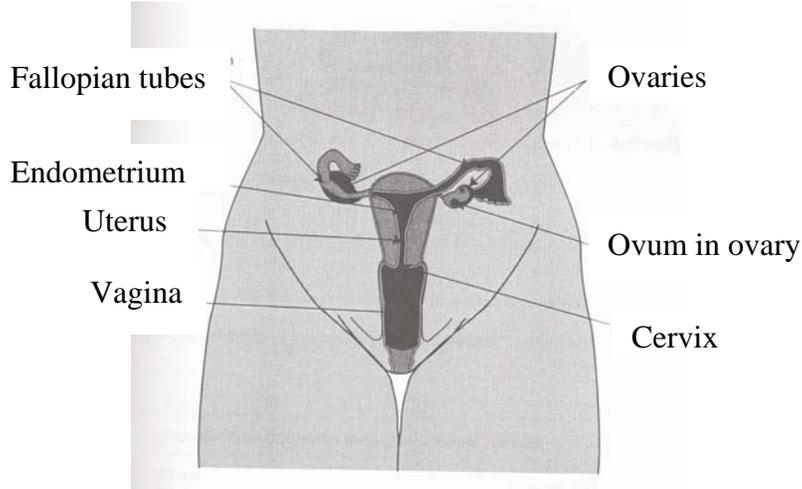
An outline of the male reproductive organs in section is shown below:



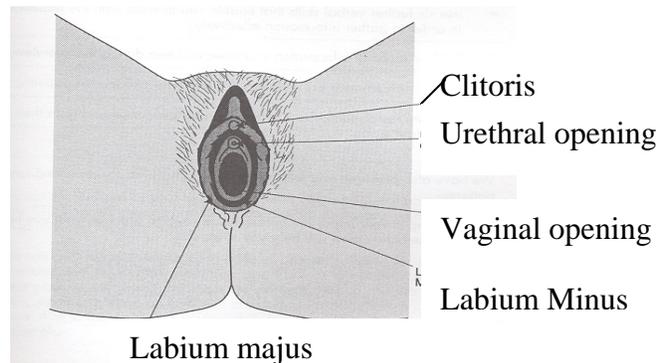
The female reproductive organs consist of:

- Vulva consisting of labia majora and minora, vaginal introitus and urethral meatus
- clitoris
- mons pubis and the pubic hair
- Bartholin's glands
- perineal body
- vagina with the vaginal canal, the anterior and posterior fornices.
- cervix and uterus
- fallopian tubes
- ovaries

The internal female reproductive organs are shown below.



The vulva is the external part of the female sex organs shown below:



### **The normal functions of the reproductive organs:**

The reproductive organs function to propagate the human species, a function that requires sexual union of the male and female organs.

### **The male reproductive organs**

The male reproductive organs are responsible for production and maturation of sperms. The system produces stores and delivers the sperms into the female sex organs during sex with the aim of fertilising the ovum.

The testes hang on the outside in a sac called the scrotum. They manufacture the sperms and are responsible for their maturation. They also produce hormones that are responsible for the male sex characteristics.

The epididymis is attached to the posterior and upper portion of each testis. It contains ducts in which the sperms are stored and through which they pass into the vas deferens. Vas deferens transport sperms from the epididymis to the ejaculatory duct.

The prostate and seminal vesicles are glands that produce seminal fluid, a viscous fluid which nourishes the spermatozoa and serves as a transport medium.

The urethra is a tube through which semen is discharged during ejaculation. It opens at the urethral meatus.

The penis is the organ which takes part in sexual intercourse. It is the organ of copulation. When stimulated, it gets engorged with blood leading to erection. It consists mainly of an erectile and a spongy body. It terminates at the glans which in the uncircumcised is covered by a fore skin - the prepuce

### **The female reproductive organs**

The Vulva consists of the labia majora (outer lip of the vagina) and the labia minora (inner lip of the vagina).

The Clitoris consists mainly of sensitive and erectile tissues.

Bartholini's glands are located near the vaginal introitus and produce lubricating fluids.

The vagina is a tubular structure leading from the uterus to the vaginal introitus. Sexual intercourse takes place in this tube and it acts as the passage for the baby during delivery. It has anterior and posterior fornices.

The cervix is the lower part of the uterus projecting into the vagina and is the external opening of the uterus.

The uterus takes part in menstruation during which its lining is shed. It holds the foetus during gestation and the placenta which nourishes the foetus.

The Ovary produces hormones that are responsible for the female secondary sexual characteristics and also periodically produces the ovum.

The Fallopian tubes are the passage through which the ovum passes to reach the uterus and it is here that fertilization usually occurs.

### **Development changes associated with sexual maturity:**

Prior to puberty, the growth of the reproductive organs proceeds at the same rate as the rest of the body. However, at the stage of puberty, which occurs from 11 - 18 years in girls and from 12 - 21 years in boys, there are significant changes in the reproductive systems which prepare the body for sex, reproduction and child rearing. These changes constitute the secondary sexual characteristics, brought about by hormonal changes.

Secondary sexual characteristics in the male include:

- Deepening of the voice.
- Hair growth in the pubic area, armpits, beards.
- Growth in general body size i.e. height and weight.

- Increase in size of the sexual organs mainly the penis and testes.
- Ejaculation may start with experiencing of “wet dreams”.

Secondary sexual characteristics in the female include:

- Increase in size of the breasts and darkening of the areola.
- Growth of pubic hair and hair in the armpits.
- Increase in body size i.e. the height and weight with the rounding of the figure.
- Changes in the voice.
- Menstruation usually commences.

These physiological changes are accompanied by psychological changes. It is important that the sexual organs fully develop before the body is ready for sex and reproduction. In adolescents, the body is still developing and is not yet ready for sex and reproduction.

### **Physiological and psychological changes associated with sex.**

During puberty, the sexual organs are developing in readiness for sex, reproduction and child rearing. When the individual is ready for sex, he undergoes certain physiological and psychological changes.

In the male, stimulation comes from various sources such as sight, touch, sound or smell or even near imagination or thinking about someone. The higher centres are stimulated and relay messages via the spinal cord to the sexual organs resulting in sexual stimulation. The penis erects in anticipation for penetration of the vagina. This is brought about by engorgement and filling of the blood in the spongy and erectile tissues of the shaft of the penis. There is a slight secretion of fluid at the glans penis which serves a lubricating function. During coitus, the penis penetrates the vagina. During orgasm (the point of maximum physical and psychological excitement), ejaculation of the semen is achieved by contraction of the epididymis and seminal vesicles with expulsion of the semen via the ejaculatory ducts. This is followed by both physical and mental exhaustion and the penis relaxes and becomes flaccid.

In the female, the same factors may precede stimulation. In anticipation for sex, the vaginal walls and the glands in the vulval area secrete lubricating fluids and the size of the vagina is slightly increased. There is in addition engorgement of the vagina and vulva with resultant erection of the clitoris. At the point of orgasm in the females, there is a nervous release that results in muscular tightening and relaxation of the perineal muscles which is accompanied by a pleasurable sensation. This too is followed by a period of both mental and physical relaxation.

### **Further reading:**

1. Graney D, Vontver L. Anatomy and Physical Examination of the Female Genital tract. In Holmes K, Mardh P-A, et al, Eds. Sexually Transmitted Diseases. New York: McGraw-Hill 1999: 685-697
2. Krieger J, Graney D, Clinical anatomy and Physical Examination of the Male Genital tract. In Holmes K, Mardh P-A, et al, Eds. Sexually Transmitted Diseases. New York: McGraw-Hill 1999: 600-721

## UNIT 2:

### BASIC FACTS ABOUT SEXUALLY TRANSMITTED DISEASES (STDs)

**Duration:** 2 Hours

**Introduction:**

Sexually transmitted diseases are infectious diseases caused by one or more microorganisms that are mainly transmitted from one infected person to another during unprotected sexual intercourse. Understanding of STDs is important because they lead to serious complications of their own if they are not treated or if they are poorly treated. In addition, they enhance sexual transmission of HIV. Most people with STI pathogens are asymptomatic or mildly symptomatic, but still infectious and at risk of complications. For this reason, a more inclusive term of “Sexually transmitted Infections” (STI) is recommended.

**Unit goal:**

To provide an overview of STDs, their causative organisms and their complications

**Learning objectives:**

At the end of the Unit, the trainees shall be able to:

- Define STDs and STIs
- List the common STDs
- Describe clinical features, causative agents and incubation periods of STIs
- Describe the common complications of STDs.

**Content outline:**

- Common STDs
- Causative agents of common STDs.
- Incubation periods of common STDs
- Major clinical features of common STDs
- Complications of gonorrhoea, syphilis, non-gonococcal urethritis / cervicitis and other STIs

**Procedures:**

**Activity 1:** Defining STIs and STD

Step 1: Let trainees to define STDs, STIs and describe the difference between the two terms.

Step 2: Discuss the STDs that are not always sexually transmitted, i.e. endogenous reproductive tract infections.

Step 3: Wrap up

**Activity 2:** Brain storming on common STDs, causative agents, main clinical features and incubation period.

Step 1: Let trainees name all STDs they are familiar with. Write down the list on the chalk board or newsprint.

Step 2: Let trainees state the main clinical features, causative agents and incubation period of each STD listed.

Step 3: Discuss the STDs that seem unclear to trainees

**Activity 3:** Categorisation of STDs.

Step 1: Let trainees categorise STDs by aetiology i.e. bacterial, viral, fungal, protozoal and infestations and to list the STDs in each category

Step 2: Wrap up

**Activity 4:** Slides demonstration of STDs.

Step 1: Using slides or photographs, ask trainees to identify the STDs shown in the slides. Gradually build in the idea of syndromic approach.

**Activity 5:** Brain storming on common complications of STDs.

Step 1: Ask trainees what they understand by STD complications

Step 2: Let trainees brainstorm the complications of Syphilis, gonococcal and non gonococcal urethritis and cervicitis

Step 3: Ask trainees to list the complications of other common STDs

Step 4: Build on the list using slides, photographs or charts illustrating the complications.

Step 5: Wrap up

**Hint to facilitator:**

1. During the slide demonstration of STDs, gradually build in the justification of syndromic approach to STD management.
2. Discuss endogenous reproductive tract infections that are not always sexually transmitted and discuss the implications on partner notification and treatment.

**Teaching materials:**

Chalk and board, Newsprint, masking tape, markers, slides, slide and LCD projector, slides and photographs of STDs

**Evaluation:**

Daily evaluation

Questions and answers during the session.

Observation of trainee's participation

**TRAINER’S NOTES:**

**BASIC FACTS ABOUT SEXUALLY TRANSMITTED INFECTIONS**

Sexually transmitted diseases are infectious diseases caused by one or more microorganisms that are mainly transmitted from one infected person to another during unprotected sexual intercourse. The table below summarises the most common STDs.

<b>STD</b>	<b>Main Clinical Features</b>	<b>Causative agent</b>	<b>Incubation period</b>
Gonorrhoea	Pus discharge from the urethra or the cervix, dysuria, frequency.	<i>Neisseria gonorrhoea</i>	2 - 6 days
Genital candidiasis	White curd like discharge coating the walls of the vagina that is itchy. Soreness, excoriation and cuts.	<i>Candida albicans</i>	May be endogenous and recurrent
Trichomoniasis	Greenish itchy discharge from the vagina with offensive smell	<i>Trichomonas vaginalis</i>	Variable
Chancroid	Dirty painful ulcer, Usually one that is undermining	<i>Haemophilus ducreyi</i>	1 - 3 weeks
Herpes genitalis	Recurrent small multiple painful ulcers which begin as vesicles	<i>Herpes simplex virus</i>	2 -7 days ( initial infection)
Lymphogranuloma venerium ( LGV )	Swollen painful inguinal glands (buboes) occasionally with an ulcer and may occasionally be bilateral	<i>Chlamydia</i> organism - LGV strains	3 - 30 days.
Granuloma inguinale	Heaped up (beefy) ulcer, usually painless which may be associated with inguinal lymph node swellings	<i>Calymatobacteria granulomatis</i>	1 - 10 weeks
Syphilis	Primary chancre is a painless, well demarcated ulcer. Other features depend on the clinical stage.	<i>Treponema pallidum</i>	2 - 4 weeks
Non gonococcal urethritis / cervicitis	Thin non itchy discharge from the cervix or urethra	<i>Chlamydia</i> , <i>Mycoplasma hominis</i> and others	7 - 14 days
Bacterial vaginosis	Thin discharge with a fishy smell from the vagina	Overgrowths of <i>Gardenerella vaginalis</i>	May be endogenous
Hepatitis B virus infection (HBV)	Jaundice with inflammation of the liver	<i>Hepatitis B Virus</i>	
HIV / AIDS	According to WHO clinical criteria for the case definition for AIDS	<i>Human Immuno deficiency Virus</i>	Months – 10 years or more
Scabies	Vesicles containing the mites in pubic area	<i>Sarcoptes scabiei</i>	30 days
Venereal warts	Finger like growths on the genitals	<i>Human papilloma virus</i>	weeks - months
Pediculosis	May see knits in pubic hair, itching in pubic area.	<i>Phthrius pubis</i> ( <i>pubic Lice</i> )	days
Ring worm	Patches of hypo / hyper-pigmentation in the pubic area.	<i>Tinea organisms</i>	

In most instances, STIs present asymptotically or mildly symptomatic. However, individuals with such infections are infectious and at risk of complications. That is why the term STI is recommended to cater for both symptomatic and asymptomatic infections.

Some of the STIs listed above, mainly vaginal candidiasis and bacterial vaginosis are not always sexually transmitted. They can be endogenous infections. This has implications on partner notification. This fact should always be explained to patients to avoid uncalled for discord in marriage or relationships.

### **Aetiological classification of STDs:**

STDs can be grouped into 5 groups according to causative agents namely:

- i. Bacterial STIs: This category includes: gonorrhoea, syphilis, chancroid, LGV, non gonococcal genital infection and bacterial vaginosis
- ii. Viral STIs: This category includes: Genital herpes, viral warts, HIV, HBV.
- iii. Protozoal STIs: This includes trichomoniasis
- iv. Fungal infections: e.g genital candidiasis and ring worms
- v. Infestations e.g. pubic lice and scabies.

### **Common complications of STDs**

Complications of STDs are long term outcomes or sequelae of untreated or poorly treated STDs. Most STDs are associated with serious complications that can be avoided if early and appropriate treatment is provided to patients. STI complications include:

#### **1. Complication of gonorrhoea and non gonococcal genital Infections:**

The complications of gonococcal and non gonococcal genital infections vary by sex and anatomical site affected.

##### *a) Complications in the male include:*

- Urethra: urethral stricture
- Seminal Vesicles: seminal vesiculitis
- Epididymis and testes: epididymorchitis

These complications can result in reduction of spermatozoa in semen and male infertility.

##### *b) Complications in the female include:*

- Bartholin's gland: Bartholinitis and Bartholin's abscess
- Fallopian tubes: Salpingitis. This may be further complicated by:
  - Pelvic inflammatory disease (PID).
  - Tubo - ovarian masses (TOM)
  - Irregular and painful and heavy menstrual bleeding
  - Ectopic pregnancies
  - Secondary infertility

##### *c) Complications in the babies:*

- Eyes: - Ophthalmia neonatorum with risk of corneal ulceration and blindness

#### **2. Complications of Syphilis:**

Untreated or poorly treated syphilis can lead to:

*a) Secondary syphilis (4 weeks to months)*

Secondary syphilis is characterized by lesions on different parts of the body such as:

- Skin : - non itchy skin rash extending to the palms and soles  
- Alopecia
- Lymph nodes: - painless enlarged discrete lymph nodes especially behind the ears ( post auricular) and above and behind the elbows (epitrochlear)
- Wet areas: Flat topped swellings (condylomata lata or syphilitic warts)

*b) Latent syphilis:*

This may occur from two years, characterized by asymptomatic infection and may only be detected by blood test such as VDRL or RPR.

*c) Late syphilis:*

This stage may occur from four years. It can affect any part of the body and lead to:

- Skin with characteristic lesions referred to as gummata
- Bone leading to swelling and thickening of affected bones
- Eyes characterized by iritis and choroidoretinitis
- Cardiovascular system lesions eg. aortic valve incompetence and aortic aneurysm
- Nervous system characterized by “general paralysis of the insane”, and loss of sensation of the feet leading to painless sores of the feet.

*d) Syphilis and pregnancy outcomes:*

The complications of syphilis on pregnancy are characterised by an apparent “improving obstetric performance” i.e. if a mother infected with syphilis is not treated, she can experience the following pregnancy outcomes in a consecutive order.

- late abortions
- intra uterine foetal deaths with macerated still births
- premature delivery
- intra uterine foetal growth retardation
- live child born with congenital syphilis

*e) Congenital syphilis (Disussed in more detail in Unit 12):*

The features of a baby with congenital syphilis are similar to secondary syphilis together with other congenital abnormalities, growth retardation and mental sub-normality.

### **3. Complications of other STDs:**

Other STIs are also associated with complication that may include:

1. Genital ulcers can lead to fibrosis of affected organs
2. Venereal warts due to HPV are associated with cancer of the cervix
3. HBV can cause chronic hepatitis that may predispose to hepatocellular carcinoma
4. LGV often results in fistulae, sinuses and fibrosis

#### **Further reading:**

1. Holmes K, Handsfield H. Sexually Transmitted Diseases. In Harrison's Text Book of Medicine

## UNIT 3

### PUBLIC HEALTH IMPORTANCE AND EPIDEMIOLOGY OF STIs

**Duration:** 2 Hours

**Introduction:**

Sexually Transmitted Infections are among the most common causes of illnesses world wide particularly in developing countries, with far reaching health, social and economic consequences. For many years, they had not been accorded high public health importance had not been recognised in many countries. However, since the outbreak of the HIV epidemic, they have increasingly assumed high priority.

**Unit Goal:**

The trainees will be able to appreciate the public health importance and epidemiology of STIs and to advocate for prioritization of STI public health interventions.

**Learning Objectives:**

At the end of the Unit, trainees should be able to:

- Demonstrate an understanding of the global and local magnitude of STIs
- Discuss the public health importance of STIs
- Discuss the determinants of high prevalence and incidence of STIs in developing countries
- Demonstrate an understanding of the STI epidemiological model
- Discuss the implications of the STI epidemiological on interventions essential for containing the silent STI epidemic.

**Content Outline:**

- Global and local statistics of the magnitude of STIs
- Reasons why STDs should be a public health priority
- Determinants of high HIV prevalence and incidence in developing countries
- Operational model for STIs in developing countries
- Implications of the STI operational model on intervention for STI control

**Procedures:**

**Activity 1:** Recap on the concept of STI, STD and endogenous reproductive tract infections.

Step 1: Let trainees brainstorm the difference between STIs and STDs.

Step 2: Highlight the endogenous nature of reproductive tract infections

Step 3: Wrap up.

**Activity 2:** Discussion of the magnitude of STIs

Step 1: Let participants brainstorm the magnitude of STIs in their health facilities or districts

Step 2: Give a short lecture highlighting the magnitude of STIs globally, Sub Saharan Africa and in Uganda

Step 3 Wrap up

**Activity 3:** Discussing why STIs should be a public health priority

Step 1: Let trainees brainstorm on why STIs should be a public health priority in their districts and country

Step 2: Clarify and wrap up

**Activity 4:** Discussing the epidemiological model of STIs

Step 1: Give a short lecture with a graphic illustration of the Oval and Piot operational model of STIs in developing country communities

Step 2: Ask trainees to explain the dynamics at each stage. Stress the barriers to STD control at each step.

Step 3: Wrap up

**Activity 5:** Discussing the implications of the STI epidemiological model on STI interventions.

Step 1: Let trainees brain storm the interventions necessary at each step in the STI operational model

Step 2: Wrap up

**Activity 6:** Brainstorming the factors for the high incidence and prevalence of STIs in developing countries

Step 1: Lead a brainstorming session on the determinants of the high prevalence and incidence of STIs in Sub Saharan Africa

Step 2: Wrap up

**Teaching Materials:**

Newsprint, markers, transparencies, overhead projector, masking tape, hand outs, LCD projector with slides, Graph of Piot and Oval operational model of STIs.

**Evaluation:**

Observation of trainees

Questions and answer.

## **TRAINERS NOTES:**

### **PUBLIC HEALTH IMPORTANCE AND EPIDEMIOLOGY OF STIs**

STIs constitute a significant cause of morbidity and mortality world wide, particularly in developing countries. However, their importance had not been realized till only recently, in the wake of the HIV epidemic.

#### **Why should STIs be a public health priority?**

There are several reasons in favour of prioritizing STIs on the public health agenda world wide, particularly in developing countries. Some of the most important include the following:

1. **Magnitude:** The burden of STIs is high world wide in terms of their associated morbidity, mortality and socio-economic impact. WHO estimates about 333 million new cases of curable STIs each year, the disproportionate share of which is in Sub Saharan Africa. In Uganda, STI or related complications have consistently ranked among the leading causes of out patient consultations in public health facilities, accounting for about 20% of adult out patient consultations in public health facilities for many years. At population level, one study in rural Uganda found high prevalence of STIs, with up to 50% of adults 15-49 having at least one STI.
2. **Complications:** Untreated or poorly treated STIs lead to very serious complications particularly among women where they are associated with adverse reproductive health consequences. Among children STIs cause blinding eye infections, congenital malformation, premature deliveries, low birth weight, growth retardation, mental sub-normality, etc. Among men and women, they can lead to secondary infertility and chronic debilitating conditions. The psychological consequences of such complications to affected individuals can be very disturbing.
3. **Socio-economic consequences:** It is indisputable that STDs are associated with significant socio-economic consequences. These include costs of treatment, cost of absenteeism from work, social stigmatization, psychological consequences of complications such as secondary infertility, etc. The World Bank estimates that STIs excluding HIV rank second only to maternal causes as the leading cause of healthy years of productive life lost among women of reproductive age in developing countries.
4. **STIs are infectious and transmissible.** As such, effective public health interventions are necessary to break the chain of transmission.
5. **STIs are preventable and many are curable:** The realization that the serious consequences of STIs can be averted through preventive interventions and effective case management renders it incumbent on all public health managers to accord to high priority to STD control.

6. Cost effectiveness of interventions: Interventions for STI control have been proved to be cost effective. STI control interventions directly benefit the individual and the community. A cost effectiveness analysis by the World Bank group showed that STD control interventions were comparable to tuberculosis control and measles immunization since their impact is felt beyond the affected individual. STI case management is therefore a public health measure, whose cost should not be born only by the affected individual.
7. Enhancement of HIV transmission: This fact has been demonstrated in many epidemiological and biological studies. Many symptomatic STDs enhance the transmission of HIV through increased viral shedding as well as providing a weakened barrier for acquisition of HIV. Effective case management of STIs not only reduces viral shedding in genital secretions, but was demonstrated in a community randomized longitudinal study in Mwanza region to reduce HIV incidence by 42%.
8. Stigma: In many societies, STIs are associated with stigma, a fact that reduces health seeking behaviour. However, this only serves to drive the epidemic even more underground. Public investment and involvement is vital to break this conspiracy of silence.

#### **Determinants of STI Epidemiology in Sub Saharan Africa:**

The high incidence and prevalence of STIs in developing countries is partly explained by the prevalence of many risk factors. They include the following:

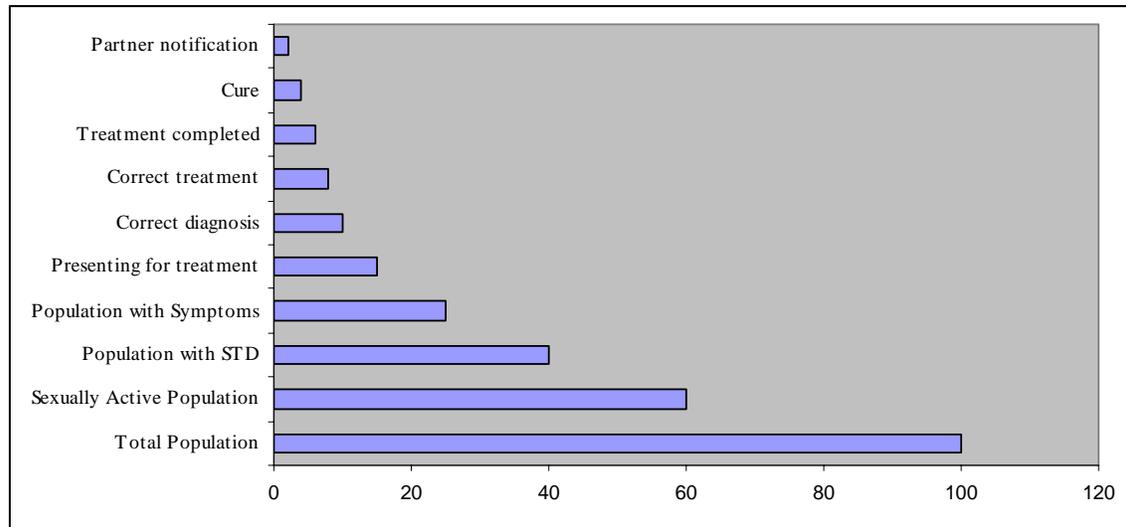
1. Young age structure: Youth constitute the majority of the population in Sub Saharan Africa. Young people are more likely to engage in multiple sexual relationships with a concomitant increased risk of HIV/STI. In addition, they are more likely to lack access to barrier methods and STD care services which increase the period of infectiousness. In addition, young women are more susceptible to STI acquisition due to hormonal changes.
2. Gender inequalities, poverty, wars and urbanization all combine to lead to break down in traditional social values with a resultant increase in such high risk activities as commercial sex that are associated with high rates of partner change and attendant increase in risk of STIs.
3. Poor health seeking behaviour and lack of effective services for STD care in most developing countries imply that the period of infectiousness is increased which ultimately leads to increased incidence and prevalence of STIs.
4. Social and cultural beliefs, attitudes and customary practices that encourage risky sexual behaviour such as multiple sexual partnerships by men are highly prevalent in African communities.
5. Sub clinical or asymptomatic infection especially among women which results in delayed treatment while at the same time infectious to others.

#### **STI Epidemiological/Operational Model:**

While effective STI case management represents the cornerstone of STD control, STI control efforts must go beyond case management, given that only a small proportion of

people with STIs actually access health care services. The epidemiological model of STIs developed by Oval and Piot summarises this situation.

### Operational model of STDs in a community:



The model clearly shows that the proportion of people in any community who have or at the risk of STDs exceeds those seen in clinics.

### **Implications of the model for STD Control:**

The scenario presented by the STI operational model mandates various interventions to contain the STI epidemic. They include:

- Reduce risk through education to communities and specific groups
- Condoms promotion through improving their availability to the sexually active
- Case finding through partners notification and screening programmes such as routine antenatal syphilis serological screening.
- Promotion of health seeking behaviour through early STI symptom recognition.
- Provision of user friendly services and increase accessibility of services particularly for youth and other vulnerable groups
- Other innovative approaches for STD service delivery e.g. training pharmacists, traditional healers, birth attendants etc in STI recognition and referral.
- Social marketing of STI treatment kits e.g. urethral discharge treatment kits
- Improve STI case management in health facilities through training and supporting health workers to make correct diagnosis and provide correct treatment
- Provision of full package of STI case management including partner notification

### **Further reading:**

1. Over M. The Public Interest in a Private Disease: Why should government play a role in STD control. In Holmes K, Mardh P-A, et al, Eds. Sexually Transmitted Diseases. New York: McGraw-Hill 1999: 3-14
2. Holmes K, Delay P, et al. STD Control, a public Health Priority. In Delabetta G, Laga M, Lamptey P. Eds. Control of Sexually Transmitted Diseases: A Handbook For The Design And Management Of Programs: AIDSCAP/Family Health International

## UNIT 4

### BASIC FACTS ABOUT HIV / AIDS AND RELATIONSHIP WITH STI:

**Duration:** 2 Hours

**Introduction:**

STIs and HIV infections are both mainly sexually transmitted. They share the same behavioural and sexual risk factors. In addition, epidemiological and biological studies have demonstrated that STDs enhance the sexual transmission of HIV; on the other hand, HIV/AIDS alters the clinical course of most STIs.

**Unit goal:**

The goal of the unit is to enable trainees to acquire a better understanding of HIV/AIDS and the association between HIV/AIDS and the traditional STIs that is essential for integration of interventions.

**Learning objective:**

Trainees will by the end of the unit be able to

- Define HIV and AIDS.
- Describe the modes of HIV transmission
- Discuss the magnitude of HIV/AIDS in Uganda and the clinical staging of AIDS
- Discuss the cofactor relationship between HIV infection and other STDs.
- Discuss the other cofactors for HIV sexual transmission.
- Discuss the signs and symptoms of AIDS
- Discuss the major considerations in care and support of people with HIV/AIDS.
- Discuss prevention of HIV transmission.

**Content outline:**

- Definition of HIV / AIDS.
- Modes of HIV transmission.
- Magnitude of HIV/AIDS in Uganda
- Signs and symptoms of AIDS and WHO clinical stages of AIDS
- Prevention of HIV transmission
- HIV/AIDS care and support including VCT
- Relationship between HIV/AIDS and other STDs.
- Other cofactors in HIV sexual transmission

**Procedures:**

**Activity 1:** Defining HIV and AIDS.

Step 1: Ask trainees to define and explain HIV and AIDS.

Step 2: Wrap up

**Activity 2:** Discussing modes of HIV transmission.

Step 1: Let trainees brainstorm on ways of transmission of HIV  
Step 2: Clarify misconceptions and wrap up

**Activity 3:** Discussion of the relationship between HIV infection and other STDs.

Step 1: Trainees brainstorm on ways STDs increase the transmission of HIV.  
Step 2: Clarify misconceptions and highlight key issues.

**Activity 4:** Discussion of other cofactors in HIV sexual transmission.

Step 1: Let trainees brainstorm on the other cofactors of HIV sexual transmission.  
Step 2: Wrap up

**Activity 5:** Discussion of prevention of HIV transmission:

Step 1: In small groups, let trainees discuss the different strategies for HIV prevention.  
Step 2: Plenary for feed back  
Step 3: Let trainees explain HIV prevention strategies that they will implement and how they will do so.

**Activity 6:** Discussion of HIV /AIDS care, support and VCT

Step 1: In small groups, trainees discuss the fears and myths surrounding AIDS care in the community.  
Step 2: Present in plenary  
Step 3: Clarify misconceptions and wrap up.  
Step 3: Introduce the concept of counseling.  
Step 4: Build in the concept of counseling in AIDS care  
Step 5: Summarise key aspects of AIDS care and counseling.

**Activity 7:** Brainstorming the relationship between STIs and HIV/AIDS

Step 1: Trainees brainstorm how STIs affect HIV transmission  
Step 2: Trainees brainstorm how HIV/AIDS affect STIs  
Step 3: Summarise and wrap up

**Activity 8:** Other cofactors in the sexual transmission of HIV

Step 1: Explain what is meant by cofactors  
Step 2: Trainees brainstorm the cofactors in the sexual transmission of HIV/STIs  
Step 3: Summarise and wrap up.

### **Teaching materials:**

Newsprint, markers, masking tape, role play scripts, LCD projector, etc

### **Hint to facilitator:**

- Facilitators may use the ease with which a burglar can break into a burglar proofed relative to a non burglar proofed house in discussion of the association between HIV transmission and STIs.

### **Evaluation**

Questions and answer, observation of trainees

## TRAINER'S NOTES

### **BASIC FACTS ABOUT HIV / AIDS AND RELATIONSHIP WITH STI:**

The Acquired immunodeficiency syndrome (AIDS) is caused by a retro virus of the lenti virus family known as the Human immunodeficiency virus (HIV). The HIV epidemic which was first reported in the early 1980s in the United States and later in Africa is now widespread, with over 60 million people infected since then, of whom about 20 million have since then died. In Sub Saharan Africa HIV mainly sexually transmitted unlike other parts of the world where intravenous drug use and gay sexual relationships are the leading modes of transmission. The length of the interval between HIV infection and manifestation of AIDS is varied. However studies done in developed countries show that 50% of infected people develop full blown AIDS in 10 years. The rate is thought to be faster in Africa, perhaps due to interaction with endemic infections and infestations, malnutrition, stress and other factors. Use of anti retroviral drugs alters the clinical course of the disease, although at the moment, there is still no definitive cure or vaccine for HIV.

After primary infection with HIV, the infection goes through the following distinct stages.

- i. Window period, lasting several weeks or months, average 6 weeks. The infected individual is still antibody negative on serological tests for HIV.
- ii. Asymptomatic phase, lasting from several months to several years but individuals are HIV sero positive, median 7 years in the absence of without anti retroviral therapy
- iii. Symptomatic and HIV positive (AIDS), lasting from several months to few years.

### **Epidemiology of HIV / AIDS in Uganda:**

Uganda has been experiencing a severe HIV epidemic for over 2 decades to date. The first cases were reported towards the end of 1982 in Rakai district. From this epicenter, the epidemic spread very rapidly throughout the country, so that by early nineties, every district had reported cases AIDS. It is estimated that as of the end of 2003, about 2 million people in Uganda had been infected, with about 800,000 people were living with the infection and over one million deaths. The main source of HIV data in the country is sentinel surveillance of HIV based on seroprevalence among antenatal mothers attending selected antenatal clinic surveillance sites. According to the available data, HIV prevalence is higher in major urban areas currently estimated at 5-10% of adults relative to rural areas where it is less than 5%.

*Trends:* The HIV prevalence in most antenatal sites represents a decline of over 50% since 1992. This is most marked in urban areas and more particularly among the younger women aged less than 25 years. This is likely to be due to declining HIV incidence.

*Age and Sex:* The males: female ratio is nearly 1:1, but there are age group specific differences. Most affected is 15 - 49 years, followed by 0 - 4 years. AIDS cases and HIV prevalence are higher among young women, with men catching up 5-10 years later.

Among young people 15-24 years, HIV prevalence among girls is 5-6 times higher than males in the same age group. This is due to cross generational sex with girls becoming sexually active at an earlier age and having sex with older men.

**Modes of HIV transmission:**

HIV is found in blood, semen, vaginal and cervical sections, sweat, tears, saliva, and breast milk. However it is infective mainly in the blood, semen, vaginal, and cervical secretions. The three main modes of HIV transmission are:

- i. Sexual intercourse - i.e. from an infected person to his or her sexual partners.
- ii. From exposure to infected blood, blood products or transplanted organs or tissues. exposure to HIV - infected blood may occur as a result of the transfusion of unscreened blood and the re-use of contaminated piercing instruments
- iii. From an infected mother to her foetus during or shortly after birth (vertical and peri-natal transmission)

The Efficiency of transmission of HIV is: Blood transfusion, 90%, perinatal transmission, 20 - 40%, sexual contact, 0.1 - 1%, needlesticks injury, < 0.5%

**Clinical features of AIDS:**

The clinical criteria for the case definition of AIDS in adults:

*A: Major signs / symptoms:*

- i. Fever of over 1 month duration - intermittent or constant
- ii. Weight loss of over 10% of body weight
- iii. Chronic diarrhoea of over 1 month duration.

*B: Minor signs / symptoms:*

- i. Cough of over 1 month without evidence of TB
- ii. Generalised pruritic dermatitis
- iii. Herpes zoster
- iv. Oral thrush
- v. Chronic and ulcerative and aggressive herpes simplex
- vi. Persistent generalised lymphadenopathy

AIDS is diagnosed if at least 2 major and 1 minor signs are present. AIDS is also diagnosed on the basis of either of the definitive signs/symptoms below. A serological test should be done to confirm the diagnosis.

*C: Definitive signs/symptoms among others include:*

- i) Disseminated Kaposi's sarcoma
- ii) Cryptococcal meningitis

***Clinical criteria for diagnosis of AIDS in Children:***

Paediatric AIDS is suspected in children presenting with at least 2 major signs /symptoms and at least 2 minor signs / symptoms in the absence of a other known causes of immuno suppression such as severe malnutrition.

*Major signs / symptoms:*

- i) Weight loss or failure to thrive
- ii) Chronic diarrhoea of over 1 month
- iii) Fever for more than a month

*Minor signs and symptoms:*

- i) Generalised lymphadenopathy
- ii) Oral pharyngeal thrush
- iii) Repeated common bacteria infection e.g. otitis media, tonsillitis, pneumonia, skin infections.
- iv) Persistent cough for more than a month
- v) Generalised dermatitis
- vi) Confirmed maternal HIV infection.

The presence of disseminated Kaposi's sarcoma and or cryptococcal meningitis also confirms AIDS. A serological HIV especially in children above 18 months should be done.

### **WHO Clinical stages of HIV/AIDS**

*WHO Clinical Stage 1:*

- No clinical symptoms
- May have persistent generalised lymphadenopathy (PGL)
- Normal activity, Performance scale 1

*WHO Clinical Stage 2:*

- Weight loss < 10%
- Minor skin rash
- Herpes zoster
- Recurrent upper respiratory infection
- Symptomatic but normal activity, Performance scale 2

*WHO Clinical Stage 3:*

- Weight loss > 10%
- Chronic diarrhoea > 1 month
- Recurrent fevers > 1 month
- Oral thrush
- Pulmonary tuberculosis
- Bedridden < 50% of day, Performance scale 3

*WHO Clinical Stage 4:*

- Cryptococcal meningitis
- Toxoplasmosis of the brain

- Kaposi' sarcoma
- Dementia
- Bedridden > 50% of day, Performance scale 4

### **HIV prevention and control:**

In the absence of a cure or a vaccine, prevention is the cornerstone in the control of HIV transmission. This is done through:

#### *1. For sexual transmission:*

- i) Total abstinence from sex
- ii) Zero grazing or mutual monogamy.
- iii) Correct and consistent use of condoms and other safer sex methods.
- iv) Early diagnosis, prevention and treatment for STDs.

#### *2. For transmission through blood and blood products:*

- i) Screening of blood and blood products prior to transfusion and limiting blood transfusion to cases that really need it for saving life.
- ii) Observing universal precautions of infection control including correct sterilisation of instruments and needles used in clinical settings and traditional practices
- iii) Screening of donors organs, tissues and semen.

#### *3. For mother to child transmission:*

- i) Use of sterile instruments during labour and delivery
- ii) Providing voluntary contraception to HIV infected mothers of reproductive age
- iii) Prevention of HIV in women of reproductive age especially use barrier methods during pregnancy and puerperium
- iv) Administration of delivery to the mother during labour and to the newborn shortly after delivery significantly reduces perinatal transmission
- v) Safe breast feeding practices for HIV infected mothers, either through exclusive breast feeding with early weaning or no breast feeding.

### **INTERACTION BETWEEN HIV AND OTHER STDs**

The relationship between STIs and HIV/transmission has been described as an epidemiological synergy. In addition, HIV and STIs share the same risk factors.

#### *1. STDs enhance the sexual transmission of HIV through:*

- a) STDs that primarily cause ulcers e disrupt the integrity of the skin barrier enabling HIV easy access through such defects in the skin. The presence of genital ulcers is known to increase the risk of HIV transmission from 0.1% -10% to nearly 100%
- b) STDs that primarily cause inflammation such as gonorrhoea, trichomoniasis, and chlamydial infections present a weak barrier to HIV.
- c) In both a and b above, infected lymphocytes among HIV infected individuals are attracted to the lesions and hence increase likelihood of infection to the partner
- d) Increased viral shedding has been reported in genital fluids of patients with STIs and STI treatment has been demonstrated to significantly reduce viral shedding.

## 2. HIV infection affects STIs through:

- a) Altering susceptibility of STD pathogens to antibiotics. This has been reported for chancroid and syphilis
- b) Clinical appearance and natural history of STDs may be grossly altered as in genital herpes and syphilis.
- c) Increased susceptibility to STDs among immuno suppressed individuals

In conclusion, STDs both as a marker of contact with increased number of sexual partners and high risk partner selection, and in their own right are associated with increased heterosexual HIV transmission. Conversely, HIV infection alters the clinical presentation and anti microbial susceptibility of STIs. This epidemiological synergy has been followed by public health action in many countries with STI control considered as a key strategy in the primary prevention of HIV transmission. At community level, one randomized community study in Mwanza region of Tanzania demonstrated a reduction in HIV incidence of 42% after STI syndromic treatment in health facilities.

### **Other cofactors for HIV sexual transmission:**

Other factors related to sexual activity which may enhance HIV transmission include:

- a. Rough sex especially with insufficient lubrication, sometimes with bruising and bleeding and can lead to micro-ulcers which can facilitate HIV transmission. Such situations include rape, sex with virgins of young people and sex without fore play.
- b. Cervical ectopy: This occurs when the usually weaker mucosal lining within the endocervical canal extends outside the cervical opening towards the vaginal walls. HIV crosses this weak mucosa more easily. This can happen in females around puberty and those taking combined contraceptive pills.
- c. ***Intrauterine contraceptive devices: (IUCD):*** Although no conclusive data exists on the relationship between HIV transmission and IUCDs, some concerns abound. This might be due to the micro trauma to the glans penis caused by the projecting threads or the chronic inflammation of the cervix leading to a cervicitis and presenting a weakened barrier. Women who are using IUCDs and who are at high risk should be advised to use condoms with their partners.
- d. ***Lack of male circumcision:*** There is increasing evidence suggesting this as an independent risk factor for HIV transmission. Reasons postulated include the prepuce presenting a larger surface area through which HIV may traverse and it also increases the risk of trauma. The circumcised penis has a harder surface which reduces the risk.
- e. ***Sex during menstruation*** or shortly after delivery exposes raw bleeding areas which increases the chances of transmission.

### **Care of people with AIDS:**

This is an area that has seen dramatic changes over the last few years as more breakthroughs in knowledge about HIV has emerged. There is currently a paradigm shift to care

in most countries. However, there is still no cure, currently available care and support measures significantly improve the quality of life and delay onset of AIDS.

Diagnosis: History and physical examination to establish presence of HIV/AIDS and to identify associated complications. Serological tests for HIV are increasingly available through VCT programme. VCT is now considered a cornerstone in HIV control through promotion of behaviour change and opening avenues to prevention and care.

### ***Levels of care for HIV/AIDS***

- i) Home and community based care: Aims at not to disrupt normal life, reduce hospital burden and to promote early detection of problems
- ii) General clinics and specialized HIV clinics
- iii) In-patient care indicated for very sick patient, with no isolation required. But standard guidelines for infection control e.g. safe and proper handling of sharps should be followed on the ward.

### ***Treatment of HIV/AIDS:***

Treatment of HIV/AIDS takes several forms including:

- i) Supportive care e.g. counseling, good nutrition
- ii) Early diagnosis and treatment of opportunistic diseases
- iii) Counseling and psycho social support
- iv) Health promotion: education of patients to prevent deterioration, prevention and early treatment of infection, avoidance of cofactors e.g. malnutrition and use of Insecticide treated mosquito networks (ITNs) for prevention of malaria.
- v) Prophylaxis against opportunistic infections such as with PCP prophylaxis, TB prophylaxis, cryptococcal prophylaxis etc.
- vi) Anti retroviral drugs: Are becoming increasingly accessible and more convenient dosing schedules with low toxicity are increasingly available
- vii) Terminal care: This requires laying down good plans for death. Introduce the topic of death through counseling. Help clients in deciding whether to die, either at home or hospital, by balancing social, cultural and economic considerations

Treatment, care and support are is the responsibility every health workers. Regular follow up is often necessary.

Support in the care of AIDS patients can be from various sources including:

- i. The patient providing own care, just like diabetics and hypertensives
- ii. Health workers
- iii. Traditional healers who share common socio-cultural environment, provide medication and some form of counseling
- iv. Non governmental and Community based organisations

- v. Extended family members and community members. These need education and counseling especially in home care, nursing care and prevention, psychosocial and material support, protective wear and other clinical supplies.

**Further reading:**

1. Wasserheit JN: Epidemiological Synergy. Interrelationships between human immunodeficiency virus infection and other Sexually Transmitted Disease. *Sex. Transm. Dis* 1992, **9** 2565-2569
2. Wasserheit JN: From Epidemiological Synergy to public Health policy and practice - the contribution of other sexually transmitted diseases to sexual transmission of HIV infection. *Sex Transm Infect.* 1999 Feb;**75**(1):3-17
3. Laga M, Diallo M, et al. Inter-relationship of sexually transmitted Diseases and HIV: where are we now? *AIDS* 1994, **8** (Suppl 1): S119-S124

## UNIT 5

### INTRODUCTION TO SYNDROMIC APPROACH TO STD MANAGEMENT:

**Duration:** 1 Hour, 30 minutes

**Introduction:**

Syndromic STD case management is the ideal approach to diagnosis and management of STDs in settings where facilities for laboratory diagnosis to support aetiological diagnosis are lacking. This approach recommended by WHO was adopted in Uganda and many developing countries during the nineties. The diagnosis is based on identification of a group of consistent symptoms and easily recognized signs (syndromes) and the provision of treatment that deals with the majority or most serious organisms responsible for the syndrome.

**Unit Goal:**

The trainees will be able to appreciate the justification for the syndromic approach to STI management and identify the most common STI syndromes and their aetiologies

**Learning Objectives:**

At the end of the Unit, trainees should be able to:

- List treatment approaches for STDs
- State what STD syndromes are
- Explain the rationale for the syndromic approach to STD management.
- Explain the advantages and disadvantages of syndromic STD management.
- State the major STD syndromes.

**Content Outline:**

- Approaches to STI management
- Definition of STI syndromes.
- The rationale for syndromic approach to STD management.
- Advantages and disadvantages of syndromic management.
- The major STI syndromes.

**Procedures:**

**Activity 1:** Discussing treatment approaches for STDs

Step 1: Trainees brainstorm on the approaches available for case management of STIs and their limitations

Step 2: Wrap up

**Activity 2:** Defining STI syndrome

Step 1: Ask trainees define the term STI syndrome

Step 2: Wrap up.

**Activity 3:** Discussing the rationale for the syndromic approach to STD management.

- Step 1 Using visual aides such as slides of STDs for which it is difficult to make a specific aetiological diagnosis, ask the trainees to state the diagnosis.
- Step 2 Using the above as a basis, justify the use of syndromic diagnosis in the management of STDs.
- Step 3 Wrap up by explaining the rationale for the syndromic approach

**Activity 3:** Listing the Major STD syndromes.

- Step 1 Ask trainees to list the major STI syndromes.
- Step 2 Guide trainees to identify the causative organisms for the STD syndromes.
- Step 3 Wrap up

**Activity 5:** Discussing the advantages and disadvantages of syndromic approach to STD management.

- Step1 Trainees brainstorm on the advantages and disadvantages of the syndromic diagnosis and management.
- Step 2 Wrap up

**Teaching Materials:**

Newsprint, markers, transparencies, overhead projector, masking tape, hand outs, slides projector with slides, STD management flow charts etc.

**Evaluation:**

- Observation of trainees
- Questions and answer

## TRAINER'S NOTES

### SYNDROMIC APPROACH TO STD MANAGEMENT:

Most developing countries including Uganda have adopted the syndromic approach to STI management that was recommended by WHO in the nineties as the cost effective approach to the management of STIs.

#### **Definition of STD syndrome**

STD syndromes refer to a group of consistent symptoms and/or easily recognisable signs caused by two or more STD agents. Syndromic diagnosis is based on identification of a group of consistent symptoms and easily recognized signs (syndromes) and the provision of treatment that deals with the majority or most serious organisms responsible for producing the syndrome, rather than for specific STDs.

#### **Rationale for syndromic Approach:**

In most health care settings in developing countries, health care providers lack time and/or equipment to diagnose STDs with laboratory tests. In addition, the reliability of test results in most setting is affected by the sensitivity and specificity of the available STI tests and competence of the laboratory staff. In addition, use of laboratories is time consuming for patients and clinicians. In fact, it is common for many patients not to return for test results that are usually not available on the day of consultation and the opportunity to treat them is lost. For these reasons, many health workers often diagnose STDs basing on clinical judgment alone. However, in most cases, such clinical impressions turn out to be wrong for various reasons. First, mixed infections with STI agents that produce similar signs and symptoms are common which would require many laboratory tests not only to confirm the causative organisms, but also to rule out the other possible co-infections. Secondly, the clinical presentations of STIs can be altered by prior medication or immunosuppression.

The syndromic approach overcomes the above set backs and makes diagnosis more accurate without extensive laboratory tests and allows treatment on a single visit. Considered with improved drug supply, the approach can make STD services more widely available through primary care clinics.

Traditionally, health care providers relied on two approaches to diagnosing STDs.

- i. Aetiological diagnosis: Identifying the organism causing the symptoms with laboratory tests is not only expensive, manpower intensive, but also time consuming.
- ii. Clinical diagnosis: Identifying the STD based on clinical experience. However, even experienced STD service providers often make wrong diagnoses of STDs when they rely only on their clinical experiences.

A third approach, i.e. the syndromic approach is now recommended. A syndromic diagnosis is made and treatment provided for the possible or serious causative agents for the symptoms or syndrome, e.g. treatment is given for genital ulcer or vaginal discharge

rather than syphilis or gonorrhoea. Since several STD agents can cause a particular syndrome, providers may need to treat for several STDs at the same time.

STD Syndromes and Causative Organisms

STD Syndromes	Causative Organisms
<b>1. Urethral discharge</b> (urethritis) Gonococcal Non gonococcal	<i>Neisseria gonorrhoeae</i> -common <i>Chlamydia trachomatis</i> - common <i>Trichomonas vaginalis</i> -uncommon <i>Ureaplasma urealyticum</i> - common <i>Herpes simplex</i> – uncommon
<b>2. Vaginal discharge</b> i) Vaginitis / vaginosis Trichomoniasis Candidiasis Bacterial vaginosis  ii) Cervicitis Gonococcal Non gonococcal	<i>Trichomonas vaginalis</i> <i>Candida albicans</i> <i>Gardnerella vaginalis</i>  <i>N. gonorrhoeae</i> <i>Chlamydia trachomatis</i>
<b>3. Genital Ulcer Disease (GUD)</b> Syphilis Chancroid Genital herpes Granuloma inguinale Lympho granuloma venerium	<i>Treponema pallidum</i> <i>Haemophilus ducreyi</i> <i>Herpes simplex</i> <i>Calymato bacteria granulomatis</i> <i>Chlamydia LGV strain</i>
<b>4. Lower abdominal pain ( Pelvic inflammatory disease)</b>	<i>N. gonorrhoeae</i> <i>C. trachomatis</i> <i>Mycoplasma hominis</i> Anaerobic bacteria Other miscellaneous bacteria
<b>5. Inguinal adenopathy( buboes)</b> Lymphogranuloma venerium Chancroid Syphilis	<i>Chlamydia LGV Strains</i> <i>Haemophilus ducreyi</i> <i>Treponema pallidum</i>
<b>6. Painful scrotal swelling ( epididymorchitis)</b>	<i>N. gonorrhoeae</i> <i>C. trachomatis</i> Other miscellaneous bacteria
<b>7. Bartholins abscess</b>	<i>N. gonorrhoeae</i> <i>C. trachomatis</i>
<b>8. Conjunctivitis with pus in the New born (ophthalmia neonatorum)</b> Gonococcal Non gonococcal	<i>N. gonorrhoeae</i> <i>C. trachomatis</i>
<b>9. Genital growths (warts)</b> Syphilitic (condylomata lata) Viral (condylomata acuminata) Molluscum contagiosum	<i>T. pallidum</i> <i>Human papilloma virus</i> <i>Molluscum contagiosum virus</i>
<b>10. Balanitis</b>	<i>Candida albicans</i> <i>Chlamydia trachomatis</i>

## **Advantages and disadvantages of syndromic approach**

The advantages of the syndromic approach to STD management:

1. Improved clinical diagnosis, avoids wrong diagnoses and ineffective treatment.
2. It is easy for primary health care workers to learn
3. It enables treatment of symptomatic patients in one visit; otherwise patients would spend time queuing or being referred for laboratory tests, results of which may not be available the same day necessitating a return visit.
4. Treatment is provided at the first point of contact with the health care delivery system enabling treatment for STIs to be provided even in peripheral health units. Referrals are limited to complicated cases since the same kind of treatment is provided at most health units in the country.

The disadvantage of the syndromic approach to STD management include

1. It doesn't adequately care for people with STDs who have no symptoms, especially women with STDs as they are often asymptomatic
2. Wasting drugs, on treatment for STDs that patients do not actually have.
3. In some cases, especially women, the symptoms and signs are poorly predictive of STI e.g. vaginal discharge for gonococcal and chlamydial infections.

In our current circumstances, the advantages outweigh the disadvantages. A theoretical comparison of the cost effectiveness of the three approaches to diagnose 500 patients with genital ulcer, 500 patients with urethral discharge, and 500 with vaginal discharge found that the clinical and laboratory approach to diagnosis and management, each cost 2 - 3 times as much as syndromic diagnosis. The cost of personnel and consequences of incorrect diagnosis accounted for most of the difference. By treating for all STDs that cause a syndrome, syndromic diagnosis avoids many complications. Even in developed countries, many health care providers prefer to use the syndromic approach to avoid delay in treating their patients while waiting for laboratory results.

### **STD syndromic treatment flow charts (Algorithms):**

Diagnosis and treatment flow charts formalising the syndromic approach have been developed. They provide health workers with step by step instructions to diagnose and treat STDs with recommended drugs. The advantages of STD treatment algorithms are:

- i) They are problem oriented and improve clinical diagnosis
- ii) Can be used as a training tool for primary care providers
- iii) Enable standardisation of treatment
- iv) Enables disease surveillance
- v) Enables evaluation of training
- vi) Enables treatment in one visit.

### **Further reading:**

1. World Health Organisation: Guidelines for the Management of Sexually Transmitted Infections. WHO, Geneva, Switzerland. 2001

## UNIT 6

### COMPONENTS OF SYNDROMIC STI CASE MANAGEMENT AND THE CLINICAL ASSESSMENT OF STI PATIENTS

**Duration:** 3 hours

**Introduction:**

Case management of STIs refers to the care of a person with an STI syndrome or with a positive laboratory test result STIs. The objective of effective STI case management is to cure the patient, break the chain of transmission, prevent re-infection and avoid complications. Appropriate STI case management comprises of a package that includes proper clinical assessment, correct diagnosis, prescription of appropriate medication, education about risk reduction, treatment compliance, condom use and partner management.

**Unit Goal:**

The trainees will be able to offer comprehensive STI case management to STI patients.

**Learning Objectives:**

At the end of the Unit, trainees should be able to:

- State the goals of STI case management
- List the components of effective STI case management.
- List the conditions required for proper clinical assessment of STI patients
- Demonstrate ability to conduct appropriate clinical assessment (history taking and physical examination)

**Content Outline:**

- Goals of STI case management.
- Components of the STI case management package.
- Conditions necessary for proper clinical evaluation of STD patient.
- History taking: Questioning techniques and format for history taking.
- Physical examination: General and specific (genital) examination
- Principles and guidelines of treatment

**Procedures:**

**Activity 1:** Brainstorming on goals of STD case management:

Step 1: Lead a brainstorming session on the goals of STD case management

Step2: Wrap up

**Activity 2:** Components of STD case management package:

Step 1: Let trainees list the components of the package that should be provided during STI consultation

Step 2: Lead a brainstorming session on each component and practical constraints providers face in delivering the package and suggest solutions

Step 3: Wrap up

**Activity 3:** Listing conditions and requirements for clinical assessment.

Step 1: Let trainees brainstorm on the conditions required for proper history taking and physical examination.

Step 2: Wrap up.

**Activity 4:** Discussing information required in history taking.

Step 1: Lead a brainstorming session on information required for history taking and the order in which this information is sought.

Step 2: Discuss the questioning techniques required for eliciting the responses.

Step 3: Wrap up

**Activity 5:** Explaining the techniques of physical examination.

Step 1: Guide a brainstorming session in which trainees state which and where to look for specific signs of STDs. Position, place and order of examination.

Step 2: Wrap up emphasizing important issues in physical examination.

**Activity 6** Role playing the ability to carry out a clinical evaluation

Step 1: Invite volunteers to role play a clinical evaluation scenario

Step 2: Invite comments from trainees

Step 3: Wrap up.

### **Teaching Materials:**

Newsprint, markers, transparencies, overhead projector, masking tape, hand outs, slides projector with slides, role play scripts

### **Hints to Facilitator:**

Make arrangements to have a practical session in a clinic if this is practical

### **Evaluation:**

Observation of trainees,  
Questions and answer

## TRAINERS NOTES

### COMPONENTS OF SYNDROMIC STI CASE MANAGEMENT AND THE CLINICAL ASSESSMENT OF STI PATIENTS

Case management of STIs refers to the care of a person with an STI syndrome or with a positive laboratory test result for one or more STIs. The goal of STI case management is not only to cure the client, but also to break the chain of transmission and avoid complications. For this reason, the STI case management package that goes beyond diagnosis and prescription, to include patient education and partner treatment as well as provision of condoms.

#### **Goals of STD case management:**

1. To make a correct diagnosis based on appropriate clinical assessment
2. To provide proper antimicrobial therapy in order to, obtain cure, decrease infectivity and avoid complications
3. To reduce and prevent future risk taking behaviour
4. To treat sexual partners in order to break the transmission chain.

#### **Components of STD case management:**

- i) Clinical assessment based on appropriate history taking and physical examination (to be seen shortly)
- ii) Syndromic diagnosis as previously discussed
- iii) Specific antimicrobial therapy for STD syndromes as will be seen under each syndrome.
- iv) Education / counseling on:
  - a. treatment compliance for patients to take all the prescribed medication even when the symptoms resolve before completing medication
  - b. nature of infection
  - c. mode of transmission of infection
  - d. risk reduction
  - e. proper use of condoms and other safer sex methods
  - f. early STD care seeking behaviour
- v) **Provision of condoms:** All STI patients should receive from the attending clinician, advice on condom use in the future. In addition, clinicians must demonstrate condom use to all STI clients using a penis model or other material. Lastly, health workers must provide condoms to all STIs patients as part of their prescription.
- vi) **Partner notification:** All recent sexual contacts of STI patients should be treated for the syndrome corresponding to that of the index patient. Index patients should be encouraged to contact their recent sexual partners and notify them about the need for treatment. Partner notification cards may be used whenever available and where appropriate. All recent sexual partners should be treated irrespective of whether they have symptoms or not. However, when the index patient has a

- diagnosis of an endogenous reproductive tract infection, health workers should exercise caution in notifying partners.
- vii) Counsel and provision or referral for HIV Voluntary counseling and testing. STI patients should be counseled about their increased risk of HIV and encouraged to seek HIV VCT services if their HIV status is not already known.
  - viii) Follow up examination - only if such a visit will be convenient for the patient.

The patient should be advised to avoid sexual contact until:

- He / she has completed taking all prescribed medication
- The STD symptoms have completely resolved
- All the sexual partners have been properly treated
- If possible, he/she has been re-evaluated by the clinician.

Here, we deal in detail with the first component of case management i.e. clinical assessment of patients. Appropriate antimicrobial treatment and other aspects of STI case management are dealt with in subsequent units.

### **CLINICAL ASSESMENT OF STD PATIENTS:**

The aim of clinical assessment is to make a correct diagnosis necessary for choosing the correct treatment option for the patient. It comprises of taking appropriate history, performing clinical examination and if necessary laboratory investigations.

In order to make the correct diagnosis, the patient should be questioned carefully about the nature of symptoms such as a “discharge, sores, warts, swollen lymph nodes, abdominal pain. In addition, history relating to the duration of the complaints and the recent sexual partners is necessary.

Physical examination should commence with a general examination and conclude with a genital examination. Remember that many patients will incorrectly describe their symptoms or fail to report a symptom, so the examination is extremely important part of clinical assessment. Mixed infections with different STDs are common, any patient reporting symptoms of one STD should be examined for presence of other STDs.

Conditions necessary for proper clinical evaluation of STD patients include:

- i. The setting should have adequate privacy for sensitive information to be solicited from the patient. A room separated from the waiting area or screens will suffice.
- ii. The clinical facility where the assessment is conducted should have adequate light
- iii. Good communication between patient and clinician and confidence setting
- iv. Adequate time for attending to the patient
- v. Informed consent for clinical examination
- vi. An assistant or chaperon of the same sex of the patient should be around throughout the assessment. This is essential to meet medical legal requirements.
- vii. Adequate facilities for examination such as examination couch, speculum, gloves

### **A: History taking.**

If the health worker is seeing the patient for the first time, a comprehensive history should be taken. The following points should be noted and the reason for each question should be appreciated by the clinician.

a) *Questioning technique:* Beginning by asking open ended questions which allow the patient to express his/her problems to the clinician. Close ended questions should be used at the end to clarify issues as necessary.

b) *Format for history taking:* The following order is recommended:

- i. Names, Age, address, sex, marital status, occupation, date of consultation.
- ii. Presenting complaint, nature of symptoms and their duration
- iii. History of previous medication for the complaint and duration of treatment
- iv. Previous history of STDs
- v. Past medical history and treatment for allergies.
- vi. Recent sexual partners:
  - a. Last sexual intercourse, with who, when, and condom use.
  - b. Previous sexual intercourse with another person before the one above, with who, when and condom use.
  - c. Number of sexual partners in the last one and three months.
  - d. Whether any of the partners have an STD complaint

In addition, for females:

- i. Last normal menstruation period and pregnancies
- ii. Regularity of flow and the amount of blood
- iii. Number of children with their ages from the youngest to oldest.
- iv. Number of abortions with ages of gestation in order of occurrence.

### **Clinical Examination:**

Before commencing the physical examination, the patient should be informed and permission sought. The following should be included in the clinical examination.

#### ***General Physical Examination:***

Look for important findings in: hair and skin and the palms and soles, preauricular and epitrochlear lymph nodes, eyes, mouth, abdomen and inguinal lymph nodes

***Genital examination:*** Important findings in the genital examination may be in:

- i) ***Males:*** pubic hair, scrotum, inguinal lymph nodes, testes, epididymis, shaft of penis, prepuce (circumcised / uncircumcised), glans / coronal sulcus, urethral meatus, genital discharge after milking the penis, and lastly, the perineum
- ii) ***Females:*** pubic hair, inguinal lymph nodes, labia, vulva, urethral opening, bimanual palpation, cervical excitation, tenderness, masses, discharge on examining finger (colour, smell, consistency), and perineum.

#### **Further reading:**

1. World Health Organisation: Guidelines for the Management of Sexually Transmitted Infections. WHO, Geneva, Switzerland. 2001

## UNIT 7

### URETHRAL DISCHARGE SYNDROME:

**Duration:** 1 Hour

**Introduction:**

Urethral discharge is one of the commonest STI syndromes among men. The main complaint is of a purulent urethral discharge or dysuria. The pathogens that cause this syndrome are mainly *N.gonorrhoeae* and *C. trachomatis*.

**Unit Goal:**

Trainees will be able to offer comprehensive case management to patients with UDS

**Learning Objectives:**

At the end of the Unit, trainees should be able to:

- State the case definition and clinical features for urethral discharge
- List the common causative organisms for this syndrome.
- Describe the recommended treatment for urethral discharge in Uganda
- Demonstrate an understanding of the syndromic management algorithm for UDS.

**Content Outline:**

- Case definition for male urethral discharge
- Aetiology of urethral discharge
- Recommended treatment for male patients with urethral discharge
- Syndromic management flow chart for males with urethral discharge syndrome (UDS)

**Procedures:**

**Activity 1:** Discussing the Case definition and clinical presentation of UDS

- Step 1      Lead a brainstorming session on the clinical presentation of UDS  
Step 2      State the case definition for UDS  
Step 3      Wrap up

**Activity 2:** Brainstorming the aetiology of urethral discharge

- Step 1:      Let trainees list the major causes of male urethral discharge  
Step 2:      Let trainees cite the other rare causes of urethral discharge  
Step 3:      Wrap up

**Activity 3:** Discussing the recommended treatment for UDS

- Step 1:      Let trainees state the recommended antibiotic treatment for UDS  
Step 2:      Ask trainees to state the alternative treatment and give reasons  
Step 3:      Wrap up emphasizing policy recommendations.

**Activity 4:** Management flow chart for UDS

- Step 1:      Lead trainees through the flow chart for UDS

- Step 2: Let trainees list other components of the management package for UDS  
Step 4: Wrap up

**Teaching Materials:**

Newsprint, markers, transparencies, overhead projector, masking tape, hand outs, slides projector with slides, STD management flow charts etc.

**Evaluation:**

- Observation of trainees
- Questions and answer.

## TRAINER'S NOTES

### URETHRAL DISCHARGE SYNDROME

Urethral discharge is one of the commonest STI syndromes among men, and is associated with serious complications. It is characterized by purulent urethral discharge with or without dysuria. The amount of discharge varies depending on the causative pathogens as well as prior antibiotic treatment.

Patients with this syndrome often complain of a discharge from the urethra. They may have symptoms of burning sensation while passing urine and frequency of micturition. Examination might reveal a purulent discharge from the urethra. If the discharge is not readily apparent, it may be necessary to milk the penis and massage it forwards before the discharge becomes apparent. If the discharge is copious, do not milk or squeeze the penis. If the patient is not circumcised, you should examine with the fore skin retracted so that you ascertain whether the discharge is from the urethra or from beneath the prepuce. The discharge may be frank pus or may be mucopurulent.

**Case definition:** Urethral discharge in men with or without dysuria

**Aetiology:** This syndrome is commonly caused by *Neisseria gonorrhoeae* and *Chlamydia trachomatis* in over 98% of cases. Other infectious agents associated with urethral discharge include *Trichomonas vaginalis*, *Ureaplasma urealyticum* and *Mycoplasma* spp. Mixed infections especially of *Neisseria gonorrhoeae* and *Chlamydia trachomatis* occur.

**Management of Urethral Discharge:** All male patients with urethral discharge should be managed according to the syndromic chart on the next page. Treatment should be provided to cover the commonest causes. The drugs of first choice are ciprofloxacin for *N.gonorrhoeae* and Doxycycline for chlamydia. In the absence of these, cotrimoxazole may be given to cover gonorrhoea while tetracycline could be used to cover chlamydial infections. However, increased resistance to cotrimoxazole has been reported in the region.

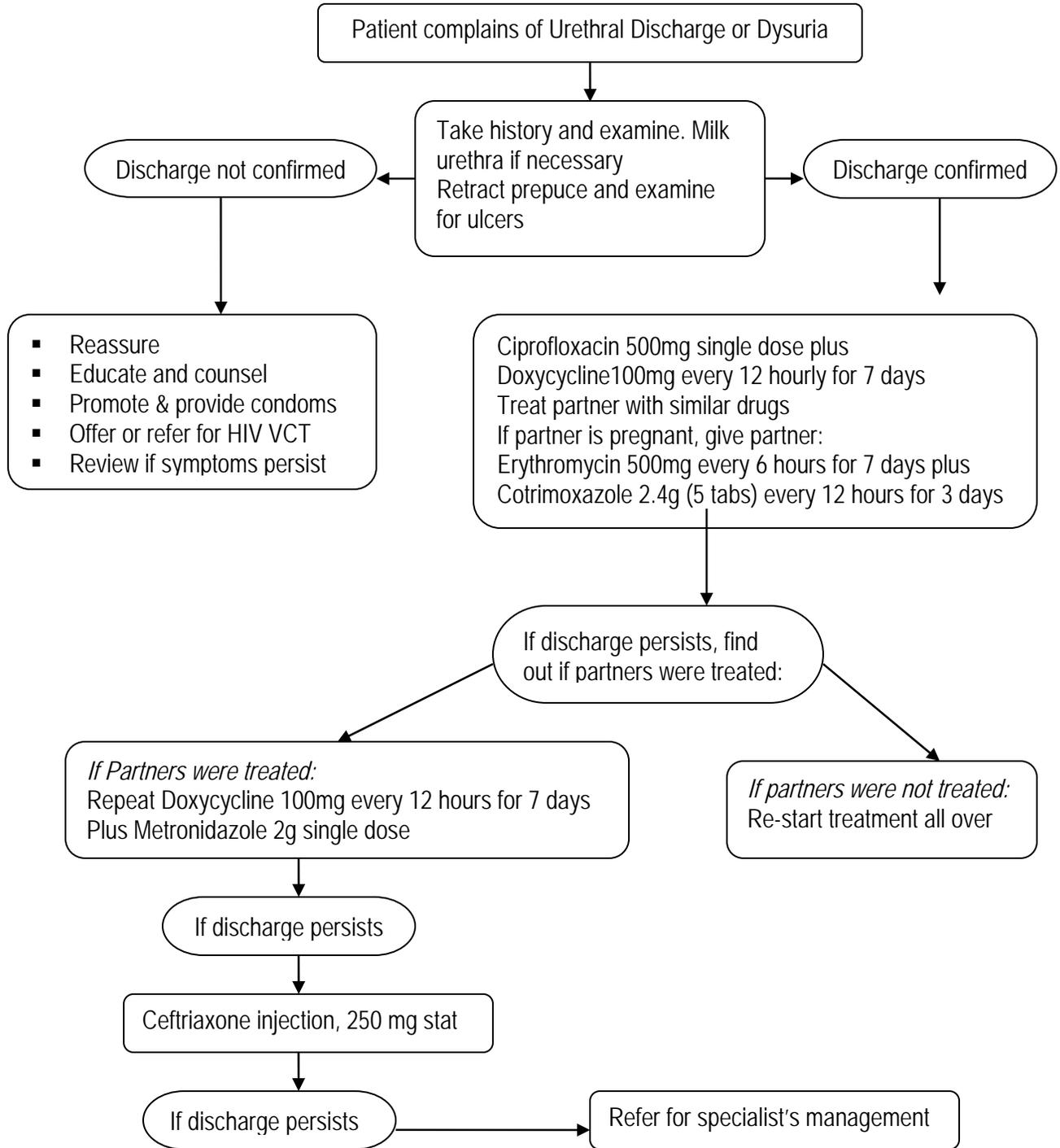
Besides antibiotic treatment, all the other components of STD case management package should be provided to patients presenting with this syndrome. They include: i) Education on treatment compliance ii) Promotion and provision of condoms and demonstrating their use, iii) Partner notification and offering treatment, iv) Offering or referring for HIV VCT services if necessary

Partners should be treated irrespective of whether they are symptomatic or not. Persistent or recurrent urethritis may be due to drug resistance, poor compliance or re-infection. There is increasing evidence of high prevalence of *Trichomonas vaginalis* among men in Sub Saharan Africa, for which patients with recurrent urethritis should be treated.

**Further reading:**

1. World Health Organisation: Guidelines for the Management of Sexually Transmitted Infections. WHO, Geneva, Switzerland. 2001

## MANAGEMENT OF URETHRAL DISCHARGE



### Counsel and educate all clients on:

- Treatment compliance
- Condom use and provide condoms
- Partner management
- Offer or refer for HIV VCT services if necessary
- Schedule a return visit
- Abstinence from sex till all symptoms have resolved

## UNIT 8

### GENITAL ULCER DISEASE:

**Duration:** 1 Hour

**Introduction:**

Genital ulcer is one of the commonest syndromes among men and women. Clinical features vary according to aetiology which varies in different parts of the world, and may be affected by HIV infection. Patients with this complaint should be examined to confirm the presence of genital ulcer including retracting the prepuce (males) and separating the labia (females) and inspecting for

**Unit Goal:**

The trainees will be able to offer appropriate case management to male and female patients with genital ulcers

**Learning Objectives:**

At the end of the Unit, trainees should be able to:

- State the case definition of genital ulcer syndrome
- List the organisms that cause genital ulcer syndrome
- State the recommended antibiotic treatment for this syndrome
- Demonstrate an understanding of the management flow chart for genital ulcers

**Content Outline:**

- Case definition and clinical features of genital ulcer syndrome
- Aetiological agents for genital ulcer syndrome
- Recommended treatment for genital ulcers in Uganda
- Syndromic management flow chart for genital ulcer syndrome

**Procedures:**

**Activity 1:** Brainstorming on the case definition and clinical presentation of genital ulcer

Step 1: Let trainees brainstorm the clinical presentation of genital ulcers

Step 2: Wrap up by stating the case definition for GUD

**Activity 2:** Brainstorming on the aetiology of genital ulcers

Step 1: Let trainees cite the causes of genital ulcer and their clinical presentation

Step 2: Wrap up stressing the commonest causes in Uganda

**Activity 3:** Brainstorming on the recommended treatment of GUD

Step 1: Let trainees state the treatment for GUD, giving their reasons

Step 3: Wrap up with policy recommendations.

**Activity 4:** Brainstorming on the management flow chart for GUD

- Step 1: Guide trainees through the recommended flow chart for GUD, interactively explaining each step of the flow chart
- Step 2: Find out if they have understood all the issues
- Step 3: Let trainees list the other components of the management package of GUD
- Step 4: Wrap up.

**Activity 5:** Lecture on relationship between genital ulcers and HIV transmission

Step 1: Give a short lecture on how HIV affects the clinical presentation and response to antimicrobial treatment of GUD

Step 2: Give a short lecture on how GUD affects HIV transmission

**Teaching Materials:**

Newsprint, markers, transparencies, overhead projector, masking tape, hand outs, slides projector with slides, STD management flow charts etc.

**Evaluation:**

Observation of trainees

Questions and answer.

## TRAINER'S NOTES

### GENITAL ULCER SYNDROME

Genital ulcer disease is one of the commonest syndromes that affect men and women. The aetiology of the syndrome varies in different geographical areas and can change over time. Single or multiple ulcers can present. In addition, the clinical manifestations are quite variable and can be altered by HIV infection. Furthermore, mixed infections are common.

Genital ulcers have an epidemiologically synergistic relationship with HIV. There are reports that HIV alters the natural history of syphilis as well as increasing treatment failure with single dose therapies. For chancroid, the natural history is also altered where more aggressive lesions may manifest as well as treatment failure especially with single dose therapies. Genital herpes can also be affected by HIV resulting in more persistent lesions. On the other hand, the evidence of enhanced HIV transmission in presence of STIs is more conclusive for ulcerative STIs.

In Men, genital ulcer disease occurring under the prepuce may present as a discharge, similarly, GUD in women may also present as a discharge underlying the importance of clinical examination. Uncircumcised Male patients with a genital discharge should have the prepuce retracted and examined for ulcer lesions, while female patients should have the labia separated and inspected. Speculum examination may be necessary.

**Case definition:** Non-vesicular Genital ulcer: Ulcer on penis, scrotum or rectum in men and on labia, vagina or rectum in women with or without inguinal adenopathy. Vesicular ulcers is an ulcer with the presence or history of vesicles

Non vesicular ulcer syndrome is typically caused by syphilis, chancroid, lymphogranuloma venereum, granuloma inguinale or atypical cases of genital herpes on the other hand are caused by HSV infection. In Uganda, the aetiology of genital ulceration has not been ascertained recently. However, the most frequent causes are Herpes genitalis, syphilis and chancroid.

#### **Management of Genital ulcer:**

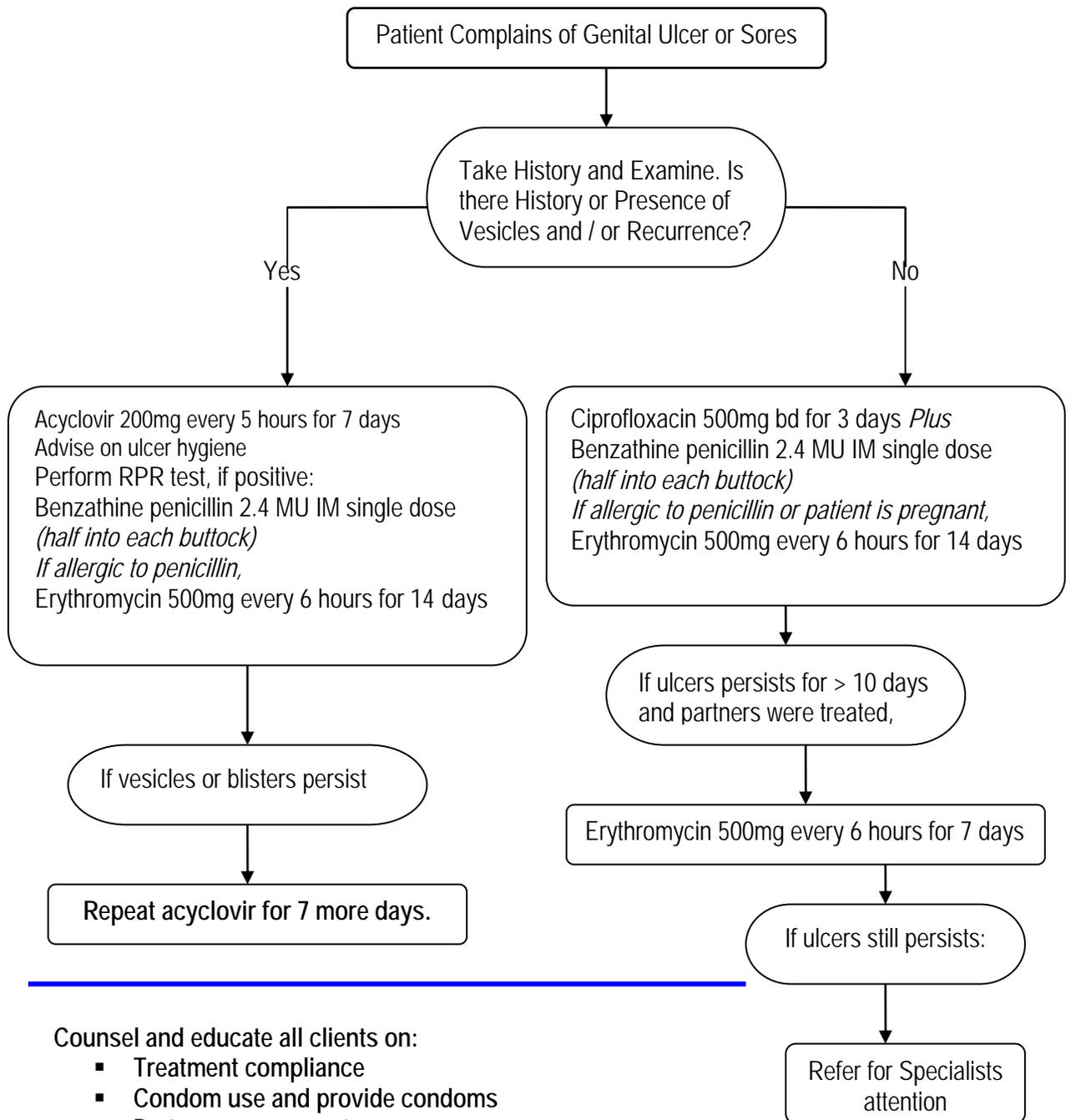
Treatment should be given as soon as possible owing to the increased risk of HIV transmission. The treatment for this syndrome is similar for both males and females. Treatment should be based on the local epidemiology of genital ulcers. In Uganda, treatment should be according to the flow chart on the next page. Distinction should be made between vesicular and non vesicular genital ulceration. Because of the increased risk of HIV transmission, treatment for genital herpes is now strongly recommended.

Besides antimicrobial therapy, the other components of STI case management including partner notification and treatment should be given.

#### **Further reading:**

1. World Health Organisation: Guidelines for the Management of Sexually Transmitted Infections. WHO, Geneva, Switzerland. 2001

## MANAGEMENT OF GENITAL ULCER DISEASE




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**Counsel and educate all clients on:**

- Treatment compliance
- Condom use and provide condoms
- Partner management
- Offer or refer for HIV VCT services if necessary
- Schedule a return visit if feasible
- Abstaining from sex symptoms resolve
-

## UNIT 9

### ABNORMAL VAGINAL DISCHARGE:

**Duration:** 1 Hour

**Introduction:**

Abnormal vaginal discharge is one of the commonest syndromes among women. The main complaints are a vaginal discharge but its characteristics vary greatly. Patients with this complaint should be examined including bimanual and speculum examination to characterize the discharge and if possible, its source. Vaginal discharge is often due to vaginitis or vaginosis and rarely due to purulent cervical infection.

**Unit Goal:**

The trainees will be able to offer comprehensive case management to patients with abnormal vaginal discharge

**Learning Objectives:**

At the end of the Unit, trainees should be able to:

- Define abnormal vaginal discharge
- List the causes of abnormal vaginal discharge syndrome.
- State the recommended treatment for patients with this syndrome
- Demonstrate understanding of the management flow chart for vaginal discharge

**Content Outline:**

- Case definition and clinical features of abnormal vaginal discharge
- Aetiological agents for abnormal vaginal discharge
- Recommended treatment for patients with abnormal vaginal discharge
- Syndromic management flow chart for abnormal vaginal discharge syndrome

**Procedures:**

**Activity 1:** Brainstorming the case definition and clinical presentation

Step 1: Let trainees describe the clinical presentation abnormal vaginal discharge

Step 2: Wrap up by stating the case definition for abnormal vaginal discharge

**Activity 2:** Brainstorming the aetiology of vaginal discharge

Step 1: Let trainees to cite the major causes of vaginal discharge

Step 2: Give a short lecture on vaginitis and cervicitis

Step 3: Wrap up

**Activity 3:** Brainstorming the recommended treatment of abnormal vaginal discharge

Step 1: Ask trainees to state the recommended antimicrobial treatment of vaginal discharge, giving their reasons

Step 2: Let trainees state the alternative treatment and give reasons

Step 3: Ask trainees to state the instances when alternative drugs may be given

Step 3: Summarise and wrap up.

**Activity 4:** Management flow chart for VDS

Step 1: Guide trainees through the recommended flow chart for VDS, interactively explaining each step of the flow chart

Step 2: Let trainees list the other components of the syndromic management package for VDS

Step 3 Give a short lecture on the endogenous nature of some causes of vaginitis and the implications this has on partner notification

Step 4: Summarise and Wrap up.

**Teaching Materials:**

Newsprint, markers, transparencies, overhead projector, masking tape, hand outs, slides projector with slides, STD management flow charts etc.

**Evaluation:**

Observation of trainees

Questions and answer.

## TRAINER'S NOTES

### ABNORMAL VAGINAL DISCHARGE SYNDROME

All women have a physiological vaginal discharge which may increase during certain situations. Normally, women will only complain if they perceive the discharge to be abnormal. Abnormal vaginal discharge is one of the most common STI syndrome among women, but also one of the most complicated to manage. The commonest causes of the syndrome are endogenous vaginal infections (bacterial vaginosis and vaginal candidiasis) that are not sexually transmitted.

**Case definition:** Abnormal vaginal discharge (indicated by amount, colour and odour) with or without lower abdominal pain or specific risk factors.

**Aetiology:** Abnormal vaginal discharge is usually due to infection of the vagina (Vaginitis and vaginosis) and rarely due to muco purulent cervicitis, although the later is more serious. Bacterial vaginosis, vulvovaginal candidiasis and trichomoniasis are the commonest causes of vaginitis. Gonococcal and chlamydial infections cause cervicitis. Distinction between the two on clinical grounds is usually not possible.

The symptom of vaginal discharge is highly indicative of vaginitis and poorly predictive of cervicitis which is in most cases asymptomatic. Thus all women with vaginal discharge should receive treatment for trichomoniasis and bacterial vaginosis. Since cervicitis is in most cases asymptomatic, an attempt may be made to identify women with increased likelihood of cervical infection by using a locally validated risk score assessment. However, this has not yet been standardized for Uganda. Microscopy of a cervical smear and speculum examination have not been convincingly shown to increase the likelihood of identifying cervical infections, but are highly recommended to rule out early lesions of cervical carcinoma.

#### **Management of vaginal discharge:**

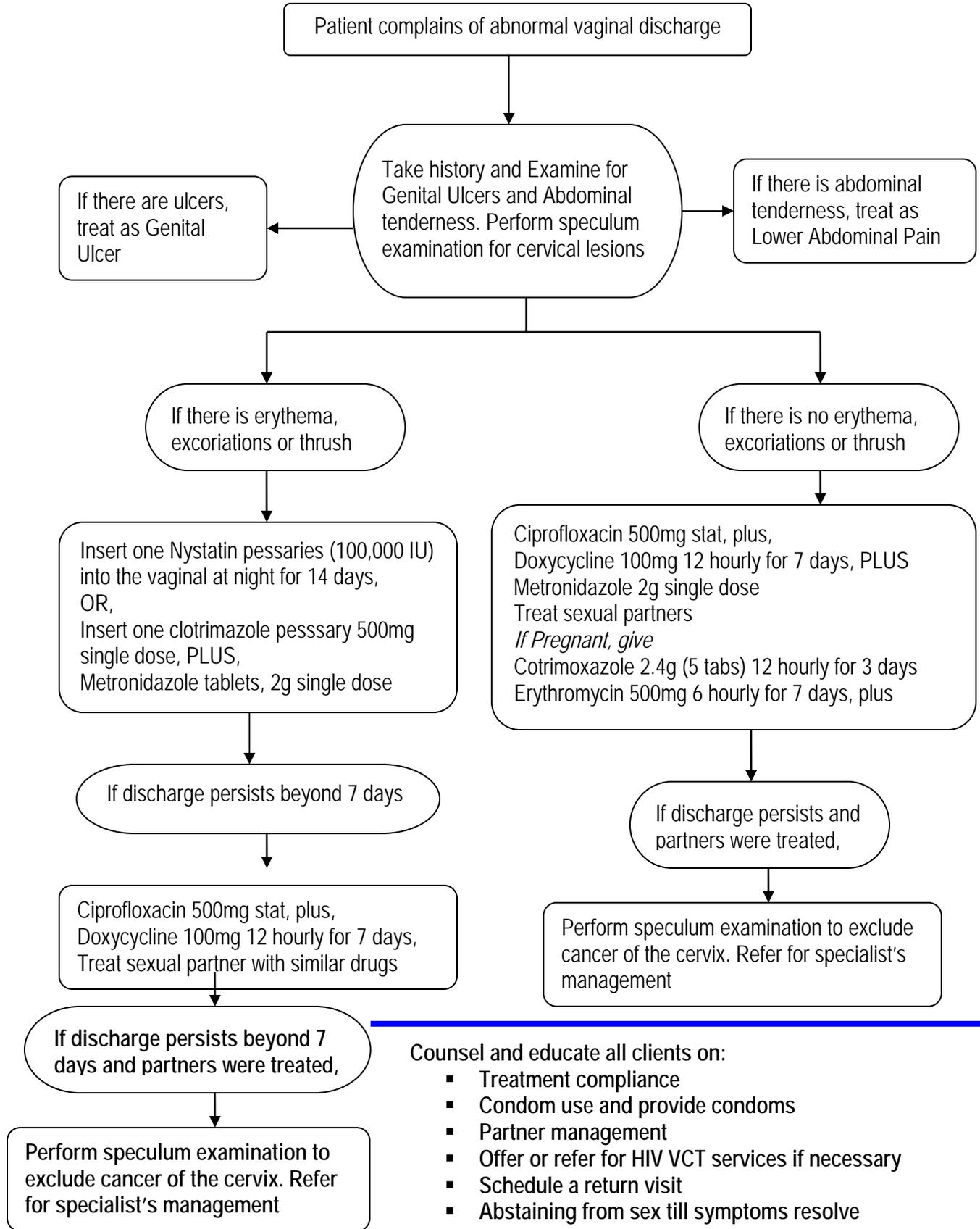
Women with vaginal discharge should be managed according to the flow chart on the next page. The flow chart differentiates between candidiasis and other vaginal discharges. However, all women with abnormal vaginal discharge are treated for bacterial vaginosis and trichomoniasis and candidiasis. At the moment, it is not possible in this country to identify women with cervicitis, and all women with a non curd like discharge should be treated for cervicitis.

While other components of the syndromic management package should be promoted in management of abnormal vaginal discharge, patients should be explained endogeneous and recurrent nature of vaginitis to avoid marital discord. Women whose partners have urethral discharge should be treated for cervicitis. Persistent abnormal vaginal discharge should be evaluated to exclude cervical cancer. Speculum examination and referral for specialist management may be necessary.

#### **Further reading:**

1. World Health Organisation: Guidelines for the Management of Sexually Transmitted Infections. WHO, Geneva, Switzerland. 2001

## MANAGEMENT OF VAGINAL DISCHARGE SYNDROME



### Counsel and educate all clients on:

- Treatment compliance
- Condom use and provide condoms
- Partner management
- Offer or refer for HIV VCT services if necessary
- Schedule a return visit
- Abstaining from sex till symptoms resolve
-

## UNIT 10

### LOWER ABDOMINAL PAIN:

**Duration:** 1 Hour

**Introduction:**

Lower abdominal pain is one of the commonest syndromes among women. The main complaint is Lower abdominal pain with or without vaginal discharge. It is usually a complication of cervical infection with *N.gonorrhoea* and *C.trachomatis*, but other anaerobic bacteria are also implicated. Patients with this complaint should be examined for vaginal discharge including bimanual and speculum examination.

**Unit Goal:**

The trainees will be able to offer appropriate case management to patients with Lower abdominal pain syndrome

**Learning Objectives:**

At the end of the Unit, trainees should be able to:

- State the case definition for Lower abdominal pain syndrome
- Discuss the organisms that cause this syndrome.
- State the recommended antimicrobial treatment for this syndrome
- Describe the management flow chart for Lower abdominal pain syndrome

**Content Outline:**

- Case definition and clinical features of Lower abdominal pain syndrome
- Aetiological agents for Lower abdominal pain syndrome
- Recommended treatment for Lower abdominal pain syndrome
- Syndromic management flow chart for Lower Abdominal pain syndrome
- Complications of Lower abdominal pain syndrome.

**Procedures:**

- Activity 1:** Brainstorming the case definition and clinical presentation of LAP  
Step 1: Ask trainees to state the main clinical presentation of patients with Lower abdominal pain syndrome  
Step 2: Wrap up by stating the case definition for LAP
- Activity 2:** Brainstorming the aetiology for Lower abdominal pain  
Step 1: Ask trainees to cite the major causes of Lower abdominal pain in women  
Step 2: Ask trainees the differential diagnoses of Lower abdominal pain  
Step 3: Wrap up with the case definition of Lower abdominal pain syndrome
- Activity 3:** Brainstorming the recommended treatment of Lower abdominal pain  
Step 1: Ask trainees to state the recommended treatment for Lower abdominal pain

Step 2: Let trainees review the differential diagnoses that must be excluded before treatment for Lower Abdominal pain

Step 3: Wrap up and restate the policy recommendations.

**Activity 4:** Management flow chart for LAP

Step 1: Guide trainees through the recommended flow chart for LAP, interactively explaining each step of the flow chart

Step 2: Find out if trainees have understood all the issues

Step 3: Let trainees list the other components of the syndromic management package for patients with LAP

Step 4: Summarise and Wrap up.

**Activity 5:** Discussing the complications of Lower abdominal pain syndrome

Step 1 Let trainees brainstorm the complications of Lower abdominal pain syndrome

Step 2 Wrap up

**Teaching Materials:**

Newsprint, markers, transparencies, overhead projector, masking tape, hand outs, slides and LCD projector with slides, STD management flow charts

**Evaluation:**

Observation of trainees

Questions and answer.

## TRAINER'S NOTES

### LOWER ABDOMINAL PAIN SYNDROME

This is perhaps one of the commonest and most serious STI syndromes among women with very serious reproductive health and socio-economic consequences. It can present acutely or chronically and is often very difficult to diagnose given the many differential diagnoses.

Patients will often complain of abdominal pain, bleeding, dyspareunia, menometrorrhagia, fever and sometimes, vomiting. Patients should be carefully evaluated for abdominal tenderness, cervical motion and adnexial tenderness, enlargement of uterine tubes, and tender pelvic masses. The temperature may be elevated. Female patients with other STIs should be carefully evaluated to exclude this condition since some may not complain of abdominal pain. This requires bimanual vaginal examination.

A thorough history and examination to exclude other surgical emergencies which present in a similar way must be done, and if necessary, referral for specialist attention done

**Case definition:** Symptoms of lower abdominal pain and pain during sexual intercourse, with examination showing vaginal discharge, lower abdominal tenderness on palpation, or temperature > 38 degrees Celcius.

#### **Aetiology:**

This syndrome is suggestive of pelvic inflammatory disease (PID), i.e. salpingitis and or endometritis. It may be caused by gonococcal, chlamydial, or anerobic infection.

#### **Management of Lower Abdominal Pain:**

Patients with other surgical emergencies should be referred immediately for in patient admission and management. Lower abdomen pain syndrome is treated with ciprofloxacin, metronidazole and ciprofloxacin.

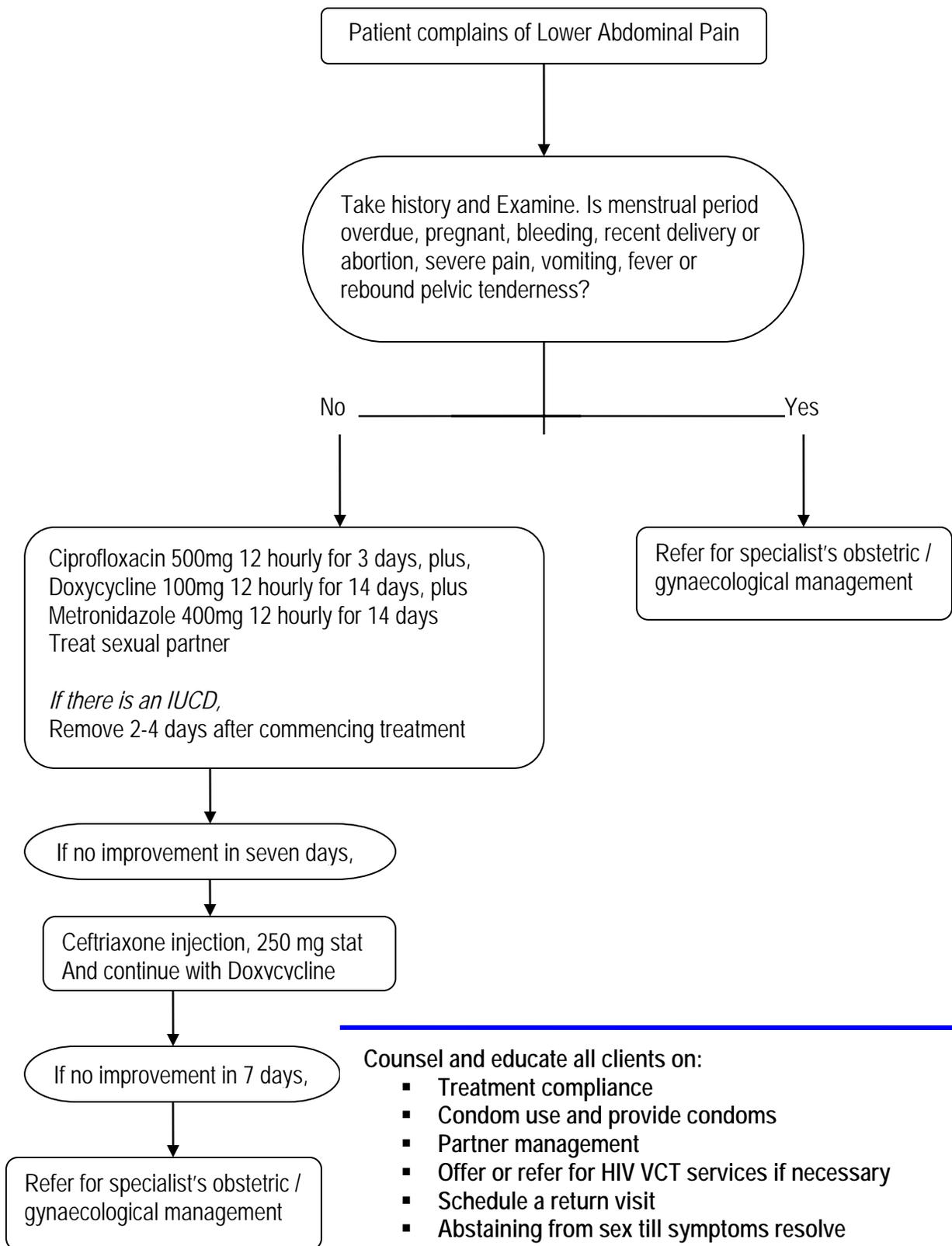
Antibiotic treatment is clearly syndromic and is directed at the aetiological agents since specific diagnosis is not possible. Out patient treatment should be prolonged due to the chronicity of the condition.

Patients with Intrauterine Contraceptive Devices, that are themselves predisposing factors for PID should have the device removed after initiating treatment for at least 2 days. Such patients will require contraceptive counseling. The other components of STI case management should also be provided to patients with Lower abdominal pain syndrome.

#### **Further reading:**

1. World Health Organisation: Guidelines for the Management of Sexually Transmitted Infections. WHO, Geneva, Switzerland. 2001

## MANAGEMENT OF LOWER ABDOMINAL PAIN IN WOMEN



## UNIT 11

### OTHER STD SYNDROMES

**Duration:** 2 Hour

**Introduction:**

In addition to the 4 common STI syndromes discussed previously, there are other less common STI syndromes that affect men and women. These include inguinal buboes, scrotal swellings, balanitis among males, Bartholin's abscess among females and genital warts. The complaints vary according to the syndrome and causative organisms.

**Unit Goal:**

The trainees will be able to offer comprehensive case management to patients with any of the five syndromes

**Learning Objectives:**

At the end of the Unit, trainees should be able to:

- Describe the clinical features and case definition for the five STD syndromes
- List the causative organisms of these syndromes.
- Describe the recommended treatment for patients with these syndromes
- Describe the management flow chart for the five STI syndromes

**Content Outline:**

- Clinical features and case definition for the five STD syndromes
- Aetiological agents for the five STI syndromes
- Recommended treatment for patients with the syndromes
- Syndromic management flow chart for the five STI syndromes syndromes

**Procedures:**

**Activity 1:** Brainstorming on the case definition and clinical presentation

Step 1: Ask trainees to state the main clinical presentation of patients with each of the STD syndromes and list them down

Step 2: Summarise by stating the case definitions for the five syndromes

**Activity 2:** Brainstorming on the aetiology for other STI syndromes

Step 1: Ask trainees to cite the major causes of other STI syndromes

Step 2: Summarise and wrap up

**Activity 3:** Brainstorming on the recommended treatment for the five STI syndromes.

Step 1: Ask trainees to state the recommended treatment for each of the syndromes.

Step 2: Summarise and wrap up.

**Activity 4:** Discussing the management flow charts for five syndromes.

- Step 1: Guide trainees through the recommended flow chart for each of the five syndromes
- Step 2: Find out if trainees have understood all the issues
- Step 3: Ask trainees to list the other components of the syndromic management package for five syndromes
- Step 4: Summarise and wrap up.

**Teaching Materials:**

Newsprint, markers, transparencies, overhead projector, masking tape, hand outs, slides projector with slides, STD management flow charts etc.

**Evaluation:**

- Observation of trainees
- Questions and answer.

## TRAINER'S NOTES

### OTHER STI SYNDROMES

In addition to the STI syndromes discussed previously, other less common but nevertheless important STI syndromes include:

#### 1. Inguinal Bubo:

These are localized swellings or enlarged lymph glands in the groin and femoral area, hence the local term “*grenade*” used to describe this syndrome. They may be painful and fluctuant. They are usually associated with LGV and chancroid. In the case of chancroid, an associated ulcer may be visible.

Non sexually transmitted local and systemic infections (e.g. infection of the lower limb or gluteal region) can also cause swellings in the inguinal region and should be excluded.

Management is according to the flow chart below. Fluctuant swellings should be aspirated daily with a large bore needle passing through normal skin, but they should never be incised as this can result in sinus.

#### 2. Painful Scrotal swelling

Sexually transmitted epididymitis or epididymo-orchitis is inflammation of the epididymis and/or testis, usually unilaterally. It is of acute onset and painful and may be accompanied by urethral discharge. This condition if not treated early can cause secondary male infertility.

It is important to exclude other non STI causes of scrotal swelling such as trauma, testicular torsion and tumours which should be referred for surgical attention. Other causes of epididymo-orchitis especially older men include *E.coli*, *Klebsiella spp*, *Pseudomonas aeruginosa*, *Brucella spp* and Mycobacteria tuberculosis. In children, mumps epididymo-orchitis may accompany parotid enlargement.

#### 3. Balanitis

Balanitis refers to inflammation of the glans penis and the prepuce. There may be discharge, erythema and erosion of the glans, however, the prepuce is retractable.

This syndrome is often caused by infection with candidiasis and rarely by trichomoniasis. Treatment should be according to the flow chart below including improvement of local hygiene. In recurrent cases or if symptoms don't resolve, the partner should be treated as well. Circumcision may be recommended in recurrent cases, but should be done only after symptoms have resolved.

#### 4. Bartholin's abscess

This complication of gonococcal or chlamydial infection of the Bartholin's gland in women presents as an extremely painful swelling at the vaginal introitus. It should be

managed as a surgical emergency. Initiate treatment as for cervicitis and refer the patient immediately for incision and drainage in hospital.

### **5. Genital warts**

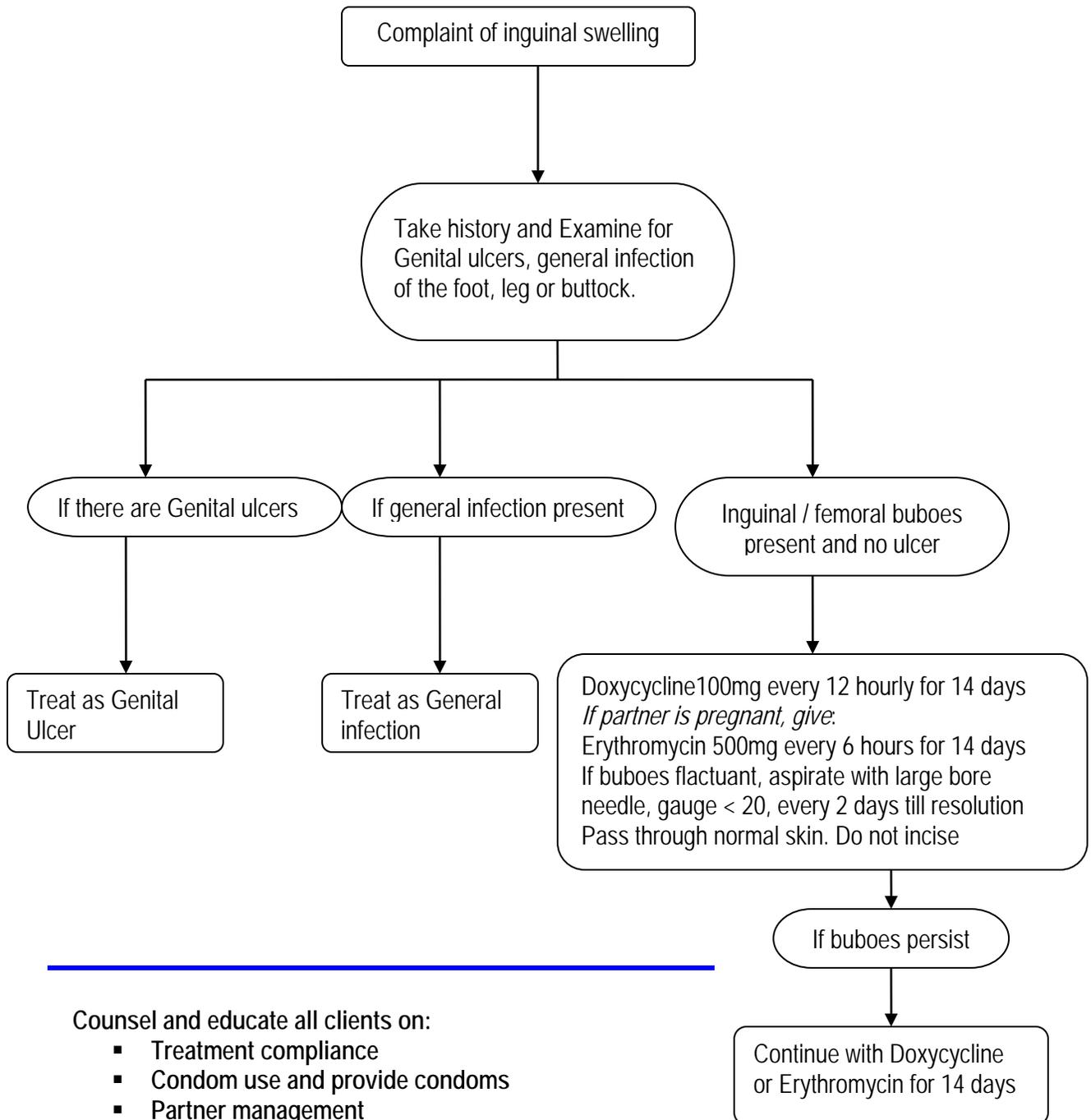
Genital warts are caused by a virus – Human papilloma virus. They usually have the appearance of flesh-coloured cauliflower-like growths on the genitals. The penis and foreskin (prepuce) of men and the labia or vagina are the most common sites of the warts. The warts can be variable in number and size, either few or multiple, small to very large.

Warts are treated with local application of podophyllin (10 - 25% solution) once a week. After treatment of warts, the medication must be washed off in 2 - 4 hours after it is applied to the warts or the patient risks developing sores at the site of treatment. If used too frequently and extensively, podophyllin can lead to severe blood and liver damage. Podophyllin is toxic and can be absorbed through the skin, so it should not be used in pregnant women. Genital warts often require more than one course of treatment. If the patient fails to respond to the three weekly treatments, he/she should be referred.

#### **Further reading:**

1. World Health Organisation: Guidelines for the Management of Sexually Transmitted Infections. WHO, Geneva, Switzerland. 2001

## MANAGEMENT OF INGUINAL BUBO

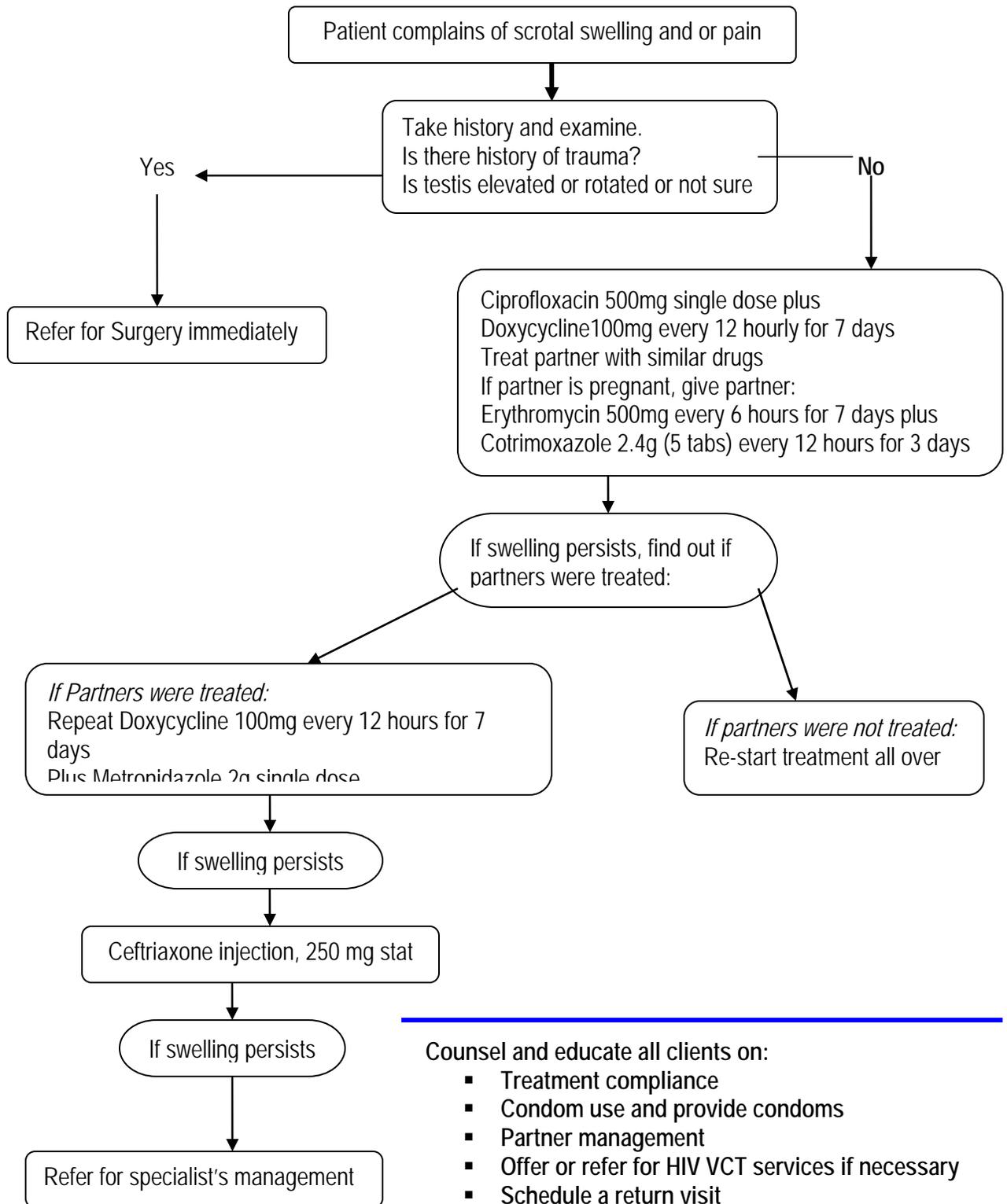



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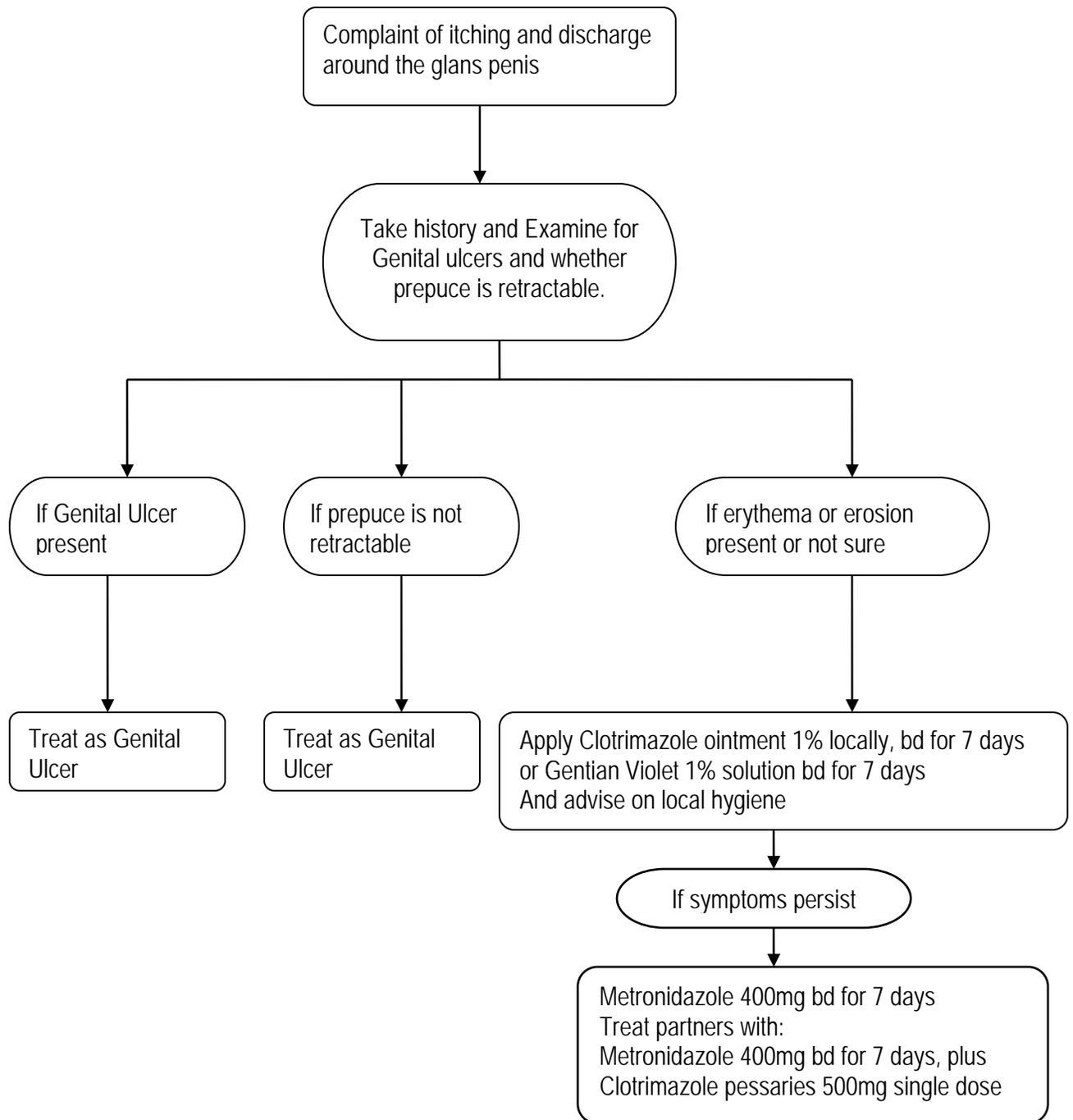
### Counsel and educate all clients on:

- Treatment compliance
- Condom use and provide condoms
- Partner management
- Offer or refer for HIV VCT services if necessary
- Schedule a return visit
- Abstaining from sex till symptoms resolve

## MANAGEMENT OF ACUTE SCROTAL SWELLING IN MEN



## MANAGEMENT OF BALANITIS IN MEN



## UNIT 12

### CONGENITAL STI SYNDROMES

**Duration:** 1 hour, 30 minutes.

**Introduction:**

Besides the STI syndromes discussed previously that mainly affect adult males and females, there are congenitally acquired STI syndromes that affect newborns. The most common are neonatal conjunctivitis and congenital syphilis. The prevalence and incidence of congenital STIs in Uganda has not been systematically determined.

**Unit Goal:**

To enable trainees to offer comprehensive case management to patients with the congenital STI syndromes

**Learning Objectives:**

At the end of the Unit, trainees should be able to:

- Describe the clinical features of congenital syphilis and neonatal conjunctivitis
- List the causative organisms of congenital syphilis and neonatal conjunctivitis.
- Describe the recommended treatment for congenital syphilis and neonatal conjunctivitis
- Demonstrate an understanding of the syndromic management flow charts for congenital syphilis and neonatal conjunctivitis.

**Content Outline:**

- Case definitions and clinical features for congenital syphilis and ophthalmia neonatorum
- Aetiological agents for the congenital syphilis and ophthalmia neonatorum
- Recommended treatment for congenital syphilis and neonatal conjunctivitis
- Syndromic management flow chart for congenital syphilis and neonatal conjunctivitis

**Procedures:**

**Activity 1:** Brainstorming on the case definition and clinical presentation

Step 1: Let trainees describe the main clinical presentation of patients with congenital syphilis and ophthalmia neonatorum

Step 2: Summarise by re-stating the case definition for the two syndromes

**Activity 2:** Discussing the aetiology of congenital syphilis and ophthalmia neonatorum

Step 1: Let trainees cite the causes of congenital syphilis and ophthalmia neonatorum.

Step 2: Summarise and Wrap up

**Activity 3:** Recommended treatment for the two STI syndromes.

Step 1: Let trainees discuss recommended treatment for the each of two syndromes.

Step 2: Summarise and wrap up restating the policy recommendations.

**Activity 4:** Management flow chart for four syndromes.

Step 1: Guide trainees through the recommended flow chart for each of the two congenital STI syndromes

Step 2: Find out if trainees have understood all the issues

Step 3: Let trainees list the other components of the syndromic management package for the two syndromes

Step 4: Summarise and Wrap up.

**Teaching Materials:**

Newsprint, markers, transparencies, overhead projector, masking tape, hand outs, slide projector with slides, STD management flow charts, hand out.

**Evaluation:**

Observation of trainees

Questions and answer.

## TRAINER'S NOTES

### CONGENITAL STI SYNDROMES

Infection of babies in utero or during delivery is one of the leading complications of untreated STIs among mothers. This can result in congenital STIs among newborns. Among the most serious congenital infections are infections with syphilis, HIV gonococcal and chlamydial organisms and herpes simplex.

#### 1. Neonatal Conjunctivitis:

This refers to conjunctival infection of neonates by STI organisms in the infected mother's birth canal. Neonates acquire this infection during passage through an infected birth canal during delivery. It is a very serious condition that can lead to corneal ulceration and ultimately to blindness. Blindness in children is associated with high infant morbidity and mortality.

#### **Main clinical Presentation:**

This disease begins during the initial thirty days after birth. It is often characterized by bilateral purulent eye discharge. The conjunctiva is inflamed and eyelids swollen. If untreated, the cornea may be affected giving rise to corneal ulceration that can lead to perforation and blindness. Corneal scarring may occur if treatment is delayed.

**Case definition:** A purulent conjunctivitis with at least one polymorphonuclear leucocyte per high power field on a Gram stain of a smear of the eye discharge of an infant less than 30 days old.

**Aetiology:** Ophthalmia neonatorum may be caused by a number of organisms but the most common are *N.gonorrhoea* and *C. trachomatis*. However, there are other non STI causes of neonatal conjunctivitis predisposed by difficult labour such as early rupture of membranes, vacuum extraction or other assisted vaginal delivery.

#### **Antibiotic treatment of choice:**

Treatment should be given to cover both STI causative organisms. Attempts to differentiate between the two based on clinical grounds can be counter productive. Systemic treatment is recommended as well as irrigation of the eyes. Staff should use gloves and wash their hands thoroughly after handling the eyelids. The recommended treatment is Ceftriaxone injection, 125 mg single dose intramuscularly

Alternative treatment to cover gonococcal infections is Spectinomycin 25 mg per kg to a maximum of 75 mg as a single IM injection, Kanamycin 25mg per kg to a maximum of 75 mg as single IM injection may also be used. This treatment will also cover Chlamydia.

Topical Tetracycline eye ointment has been shown to have no added benefit. However, local irrigation of the eye with saline or sterile water should be carried. Staff should cover

the eye with gauze while opening the eyelid as pus may be under pressure. Staff handling the eyes must use gloves at all times.

**Other components of the case management package:**

Parents of babies diagnosed with ophthalmia neonatorum should be treated for cervical infection of *N.gonorrhoea* and *C. trachomatis*.

Prevention of ophthalmia neonatorum through screening and treatment of infected mothers and ocular prophylaxis of all newborns in high prevalence areas with 1% silver nitrate or 1% tetracycline eye ointment at the time of delivery is strongly recommended.

**Management flow chart for Ophthalmia neonatorum:**

The syndromic management flow chart for ophthalmia neonatorum is shown below.

**2. Congenital syphilis:**

Congenital syphilis is a serious debilitating and disfiguring condition that can be fatal. About one third of syphilis infected mothers have adverse pregnancy outcome, one third give rise to a health baby, while the remaining third may result congenital syphilis infection, although the stage of syphilis may confound these outcomes.

**Main clinical Presentation:** Some cases of congenital syphilis can be asymptomatic, while others may present with early congenital syphilis, and others may manifest symptoms of late congenital syphilis after two years. Early syphilis begins to show after 6-8 weeks of delivery and manifests with snuffles, palmar and plantar bullae, hepatosplenomegally, pallor, joint swelling with or without paralysis and cutaneous lesions. These signs are non specific. Late signs include microcephally, depressed nasal bridge, arched palate, and perforated nasal septum, failure to thrive, mental sub normality and musculo skeletal abnormalities.

**Management of congenital syphilis:**

Penicillin is the drug of choice for congenital syphilis. Procaine penicillin, 50,000 IU per Kg body weight daily for 10 days is recommended. Symptomatic patients should be admitted. Treatment for all babies less than 2 years should assume cerebrospinal involvement. Aqueous benzyl penicillin should be administered, 50,000 IU/kg body weight every 12 hours for a total of 10 days. Alternative treatment is procaine benzyl penicillin, 50,000 IU/kg body weight, single dose daily for 10 days.

Both parents should be treated for syphilis with benzathine penicillin. The adverse effects of syphilis on pregnancy can be prevented by programmes of routine screening and treatment of syphilis infected mothers in antenatal clinics.

**Further reading:**

1. World Health Organisation: Guidelines for the Management of Sexually Transmitted Infections. WHO, Geneva, Switzerland. 2001

## MANAGEMENT (OPHTHALMIA NEONATORUM):

Conjunctivitis with pus in the eyes of the newborn

Clean the eye with saline or clean water,  
Always wear gloves  
Cover the inflamed eye with gauze before you open the eyelids for your own protection.  
Tetracycline eye ointment every hour for 24 hours  
Plus  
Ceftriaxone 125mg i.m. stat or Kanamycin 75mg stat  
Plus  
Erythromycin syrup 15 mg/kg body weight 6 hourly for 14 days

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Treat mother and father for cervical and urethral discharge respectively.  
Prophylaxis for ophthalmia neonatorum: Tetracycline eye ointment stat or Silver nitrate 1% stat, immediately after birth.

## UNIT 13

### PREVENTION AND CONTROL OF STDs

**Duration:** 3 Hours.

**Introduction:**

Primary prevention of STIs is an important public health priority, necessary to avert the infection and serious consequences associated with them as well as to complement prevention of HIV transmission.

**Unit goal:**

To equip trainees with knowledge and skills to design and deliver appropriate STD prevention and control measures for the community.

**Learning objectives:**

By the end of this unit, trainees should be able to:

- Identify and discourage risky sexual behaviour and describe safer sex practices.
- Describe local myths about condoms and discourage the myths.
- Demonstrate correct condom use.
- Demonstrate knowledge of use of local sexual terminology, sexual practices, attitudes and taboos in designing STI prevention control measures
- Identify vulnerable and high risk groups and design appropriate interventions.
- Recognise own values and prejudices regarding sex and human sexuality and the implications of these on his work with STD patients.
- Role of high frequency transmitters in STD transmission

**Content outline:**

- Definition of primary and secondary STI transmission
- Safer sex practices
- Condom use
- Local sexual practices, attitudes and taboos
- Local sexual terminology
- Vulnerable and core group interventions.
- Prejudices about sex and ways of discouraging them.

**Procedures:**

**Activity 1:** Brainstorming about safer sex.

Step 1: Let trainees brainstorm outcomes desired from sex. Previous responses include: satisfaction of desire, pleasure, prestige, connections, etc.

Step 2: Next let trainees brainstorm the undesired outcomes of sex. These may include unwanted pregnancy, STDs, Trauma, and HIV etc.

Step 3: Guide a brainstorming on safer sex by asking a question - How one can have desired outcome and yet avoid the undesired outcomes?

Step 5: Let trainees brainstorm the likelihood of people using the safer sex options.

- Activity 2:** Discussing Condom use.
- Step 1: Give a brief lecture on condoms.
- Step 2: Ask trainees their personal feelings about condoms and what they think members of the community feel. Ask them whether they will be able to promote condom use? If not, why?
- Step 3: Distribute one condom to each participant. Demonstrate how to open the package and put it on the penile model. Let trainees practice. Stress that health workers must always demonstrate condom use to their STI patients
- Activity 3:** Discussing Local sexual practices, attitudes and taboos.
- Step 1: Help trainees to become comfortable with a discussion of sex by guiding the initial discussion. Use questions that trainees can offer opinions on or about; there is no right or wrong answer. Such questions include: What is sex? What are the forms of abnormal sex and why? Who should have sex?
- Step 2: When the group is comfortable and interested, divide it into groups of 5-7 and ask each group to discuss and answer the questions in trainer's notes. Ask them to appoint a recorder who will present to the larger group.
- Step 3: Ask the rapporteurs to give a brief summary of their group discussions.
- Activity 4:** Discussing local sexual terminology.
- Step 1: Discuss with the trainees the fact that most people use slang terms to refer to body parts or sexual activities. They must be comfortable with the actual terms in order to discuss sexual matters with their patients.
- Step 2: Lead a discussion in which the trainees can think of and describe parts of the female and male genitalia and vocabulary related to sex
- Activity 5:** Discussing Vulnerable and core group intervention.
- Step 1: In a plenary, ask trainees to mention types of people in the community that are vulnerable and those at high risk of getting STDs and their life styles that predispose them. Let trainees think about factors and specific aspects of their life styles that make them so.
- Step 2: Remind trainees that for some people, the risk factors / predisposing factors must be changed before they can successfully avoid STDs. Point out to them that the purpose of the discussion is to help them develop a prevention strategy for certain groups of people in their communities.
- Step 3: In small groups ask trainees to develop STD prevention messages that might appeal to people who are susceptible to different risks.
- Step 4: In the plenary let the rapporteurs present their messages.
- Activity 6:** Discussing prejudices about sex:
- Step 1: Lead a discussion about prejudices health workers/trainees have about sex
- Step 2: Ask trainees what impact they think these prejudices have on the handling of patients with STDs?
- Step 3: Ask trainees to mention ways these prejudices can be overcome.
- Step 4: Wrap up

**Teaching Materials:**

Newsprint, markers, tape, penis model, condoms etc

**Evaluation:**

Demonstration,  
Question and answer

## **TRAINER'S NOTES:**

### **PREVENTION AND CONTROL OF STDS:**

#### **Introduction:**

Although most STDs can be treated and cured, it is more cost effective to prevent them. Furthermore, some of the STDs have no cure. Prevention and control of STDs relies heavily on intervention by way of community education on the risk factors and promotion of behaviour change. STDs prevention measures revolve around intervention on sexual behaviour of the individuals. Remember that different people have different desired outcomes of sex and one intervention measure may not satisfy all. In facilitating behaviour change, it is therefore necessary to provide options to individuals.

#### **Primary Preventive measures:**

Some of the measures one can employ to avoid STDs include the following:

- i) Abstinence: This might be total abstinence from sex or for groups such as students and youths not yet married, one should encourage, “postponed sex” till one is ready for marriage.
- ii) Mutually faithful sexual relationship or “Mutual monogamy” or what is usually termed as “Zero grazing” if both partners are not already infected.
- iii) Correct and consistent use of condoms and other safer sex practices. This intervention is recommended for those who cannot abstain and yet cannot have mutually faithful relationship.
- iv) Safer Sex practices. Safer sex practices are many and varied but all revolve on the principle of avoiding exchange of sexual or body fluids of the partners, yet enabling the individual(s) to obtain what they desire out of sex. some of the safer sexual practices include:
  - Correct and consistent use of condoms
  - Masturbation of self or with objects
  - Intimate romance
  - Sex with clothes on (romance )
  - Sex with other parts of the body that don't produce body fluids.

#### **Secondary prevention includes:**

- i) Early diagnosis and prompt and correct treatment of STDs
- ii) Promotion of STD care seeking behaviour including reduction of barriers to care.
- iii) Notification of partners and treatment
- iv) Screening for asymptomatic cases such as pregnant mothers treatment

#### **CONDOM USE:**

Condoms are penis shaped thin walled sheaths molded from natural rubber. Like a surgeons gloves, they are designed to provide a barrier against microorganisms without significantly reducing the sense of feel. If used correctly and consistently, they provide good protection against STDs, HIV and unwanted pregnancies.

Modern rubber condoms are made by dipping a glass mold into a liquid made up primarily of water and natural latex. All of the operations are performed automatically on

a conveyor containing thousands of these glass molds. The latex films, still on their glass molds, pass through an oven which “vulcanizes” the thin latex into a thin but tough elastic film. After further processing each condom is rolled back on to another large penis shaped form made of metal and subjected to an electric charge. If the condom contains a pin hole anywhere, an electric current flows through and triggers a switch which causes the condom to be rejected. Even after this thorough screening, the condoms are sampled and other tests carried out for pinholes, strength, size, and other characteristics.

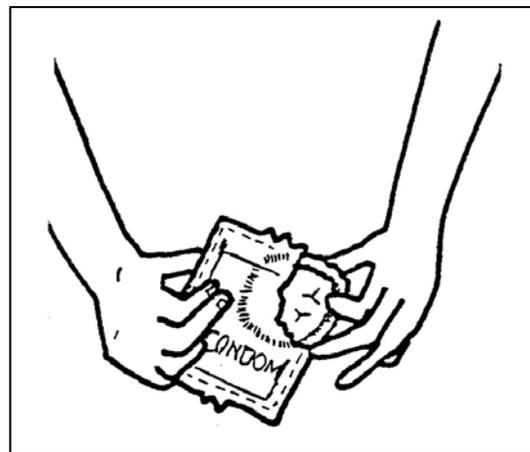
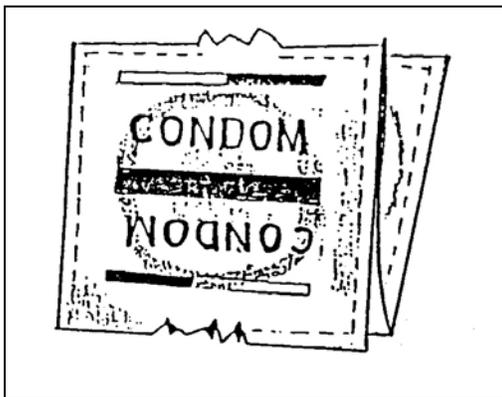
### **How to use a condom - Demonstration and discussion:**

**Note:** It is absolutely necessary to demonstrate the use of a condom to STI patients. A penis model or soft drink bottle can serve as the erect penis. Provide a sample of condom to each participant and let each open the package and roll the condom on the model.

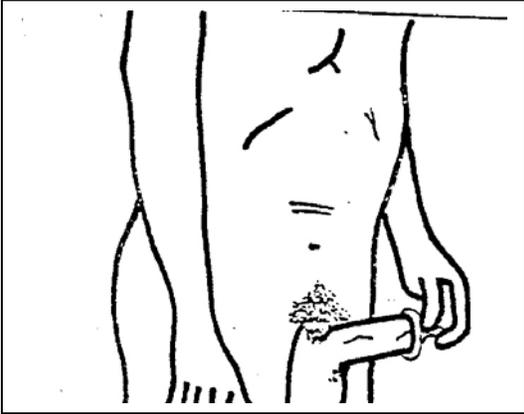
#### *Hints for effective condom use:*

- i) Know your condom: Get used to handling it and opening the package. Don't wait for a sexual encounter to try the condom on. Try one on in the privacy of your own room. Get used to the way it rolls on.
- ii) Keep enough condoms with you if you think you may need to use them.
- iii) Put the condom on: The condom should be rolled onto the erect penis. Use two hands, use one to squeeze the tip of the condom (to expel air) as you roll it on.
- iv) Handle the condom with reasonable care (watch out for fingernails and jewelry). Roll the rim all the way to the base of the penis.
- v) Take the condom off: Do this while the penis is erect. One of the most frequent causes of condom failure results from the condom slipping off the limp penis while it is still inside the vagina. Grasp the ring top of the condom and hold it tightly around the penis that is still in the vagina. Withdraw the penis with condom still firmly grasped. Slide the condom off, pinching shut the grasped ring top end.
- vi) Dispose off the condom. Condoms cannot be reused. They should be disposed of in such a way that they will not be found by children who might play with them. You could be put them in a pit latrine, or bury them in a pit or burn them.

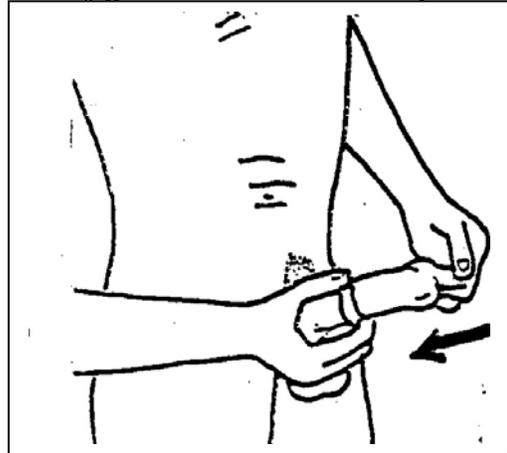
### **Illustrations of how to use condoms:**



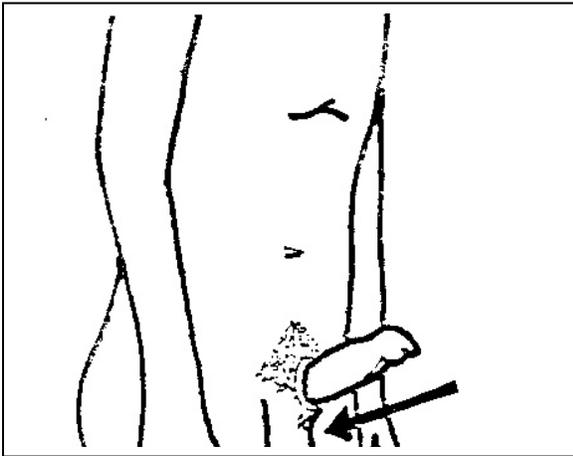
1. A condom in its Pack.



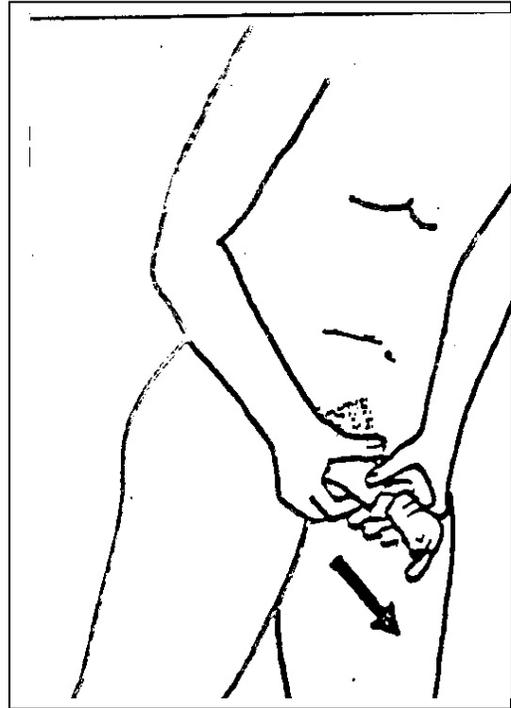
2. Remove the condom from the packet



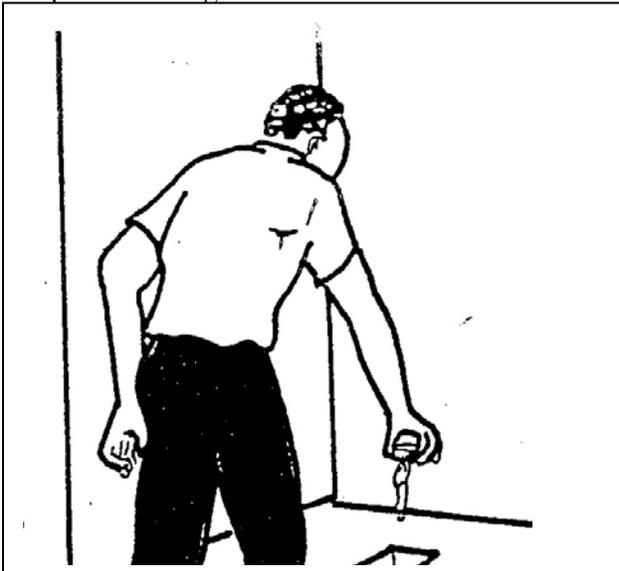
3. Hold the tip of the condom to squeeze out air make room for sperms.



4. Unroll the condom onto the erect penis. Continue to hold the tip of the penis and unroll



5. Keep unrolling the condom the whole length penis until it gets to the base



6. After orgasm, hold onto the edge of the condom and pull out of your partner while the penis is still erect. Remove the condom by carefully rolling it down the penis.

7. Throw it away into a latrine or burn or bury it in the ground.

### **Local sexual practices, attitudes and taboos:**

It is important that the trainer understands that there are no right or wrong answers to the discussion questions. The purpose of the discussion is to sensitise the trainees to various opinions about sex and to help them understand the wide variety of personal responses to sex. What follows are examples of answers that have been given at previous workshops in Uganda. They are listed here in order to give the trainer an idea of how the discussion is likely to proceed.

#### ***1. What is sex?***

- i. "Sex is a process by which a man inserts his erect penis into the vagina so as to satisfy ones sexual desire."
- ii. "A pleasurable act through which an individual reaches an orgasm ( man ) , after penile / vaginal penetration."
- iii. "A natural behaviour and marital act between male and female by introducing a penis into the vagina intended for expression of love and affection."
- iv. "It shows the pinnacle of love and relaxation to natures's desires"

#### ***2. What is abnormal sex?***

Examples that have been suggested are: Oral and anal sex, sex with a covered penis i.e. condoms, sex without penetration, lesbianism, masturbation, coitus interruptus, etc.

#### ***3. What are your feelings about sex?***

Examples from previous discussions include:

- i. "Sex should be done in privacy"
- ii. "Sex is for reproduction"
- iii. "Sex known to a third party is shameful"

#### ***4. Two people are having sex, What do you feel about them?***

Examples of responses from previous discussions include:

- i. "They have enjoyed each other"
- ii. "They are just common lovers"
- iii. "Not serious"
- iv. "I would feel jealousy"
- v. "One was paid money"
- vi. "It would not bother me"
- vii. "I would feel like doing the same"

#### ***5. What do you think of someone who asks you for sex?***

Examples from previous workshops include:

- i. "May be wanting money"
- ii. "May be teasing me"
- iii. "Not serious"
- iv. "I would feel shy or embarrassed"
- v. "May be infected with STD / HIV"
- vi. "Loves me so much"

### **6. How do people ask for sex?**

Examples from previous workshops include:

- i. “Can I have the goods?”
- ii. “Let us go to sleep together”
- iii. “They tell the wife to turn around in bed”
- iv. “I love you”
- v. “You are beautiful”
- vi. “Let’s go for a drink”
- vii. “They tickle the woman’s breasts”
- viii. “They touch her genitals”

### **7. What social activities may promote or result in sexual activities?**

Answers from previous workshops include: Dancing, parties, traditional ceremonies, drinking alcohol, school outings, water fetching in the evenings, visiting friends.

### **8. Describe the various local forms of sex and what takes place in each?**

Some of the descriptions from previous workshops include:

- i. Ekukumo (Time bad / Saa mbaya): This is done when both or either partner has no time. The woman bends forward in a standing position with her lower limbs abducted allowing the man’s penis into the vagina, as the man holds her abdomen pushing the penis in and out. Strictly the woman should not scream.
- ii. Kachabali (the western style): This is where the man holds his penis and strokes it around the woman’s clitoris. When the man is about to ejaculate, he pushes the penis right inside the vagina.

### **9. What sexual activities does your culture object to?**

Some of the previous discussions gave the following responses:

- i. “A married woman is not to have sex in the bush as the children may die.
- ii. “You should not have sex with close relatives e.g. aunties, brothers, sisters etc.
- iii. “No sex in a house still under construction.
- iv. No sex during the engagement period.

### **Local sexual terminology:**

This helps health workers to have experience in naming the parts in his local language and feel free when expressing himself / herself to a patient. In case of an STD, a clinician will be able to say which part is affected and this leads to clear diagnosis and treatment and client education.

### **Core group intervention strategy using local knowledge, attitudes practices and behaviour:**

Trainers should stress to the health workers that in formulating an intervention strategy, it is necessary to formulate messages that have targeted intervention information. Such messages should target that specific aspect of behaviour which those practicing it need to address. The messages should be pointing out the risk inherent in that aspect of

behaviour, the reason for the risk and should point out how to go about modifying it. Trainees too ought to tell you where the perceived risk groups are likely to be found. The messages should sound persuasive, not intimidating and not blaming those practicing.

What follows is the thinking of trainees of one workshop on what they perceived to be high risk groups.

Target group	Reasons for the risk	Venue for Information dissemination	Risk perception message
1. Bar maids/ waiters.	Take alcohol Become loose Deal with drunkards.	Bars Hotels	People who buy sex from you also buy from others who may have STDs. So by selling sex, you expose yourself to STDs.  Drunkards have lost sense of judgment and have sex with multiple partners who may have STDs.
2. Soldiers	Rape Multiple sexual partners Desperate Take alcohol	Barracks	Having forced sex leads to trauma which makes it easy to get HIV.
3. Travelers and businessmen.	Multiple partners at stopovers. Buy sex Take alcohol	Hotels, Bars Garages	Those who sell sex to you also sell sex to others who may have STDs.
4. Musicians.	Travel a lot Attract Women Take alcohol	Night clubs Parties	The people who admire you admire other people and have sex with them. They may have STDs.
5. Polygamists	Multiple partners Cannot satisfy all their wives sexually	RC Meetings	When a woman sleeps alone without her husband, she may look for someone to keep her company who may give her STDs.
6. Students	Experimenting with sex Selling sex	Schools	To experiment with sex, you meet with many sexual partners who may have STDs. This increases your chances of getting STDs.

**Further reading:**

1. Ghee A, Field LM, Coates T. Behaviour Change in a clinic setting. In Delabatta G, Laga M, Lamptey P. Eds. Control of Sexually Transmitted Diseases: A Handbook For The Design And Management Of Programs: AIDSCAP/Family Health International

## UNIT 14

### COUNSELLING IN MANAGEMENT OF STDs

**Duration:** 4 Hours.

**Introduction:**

Counseling of patients with STIs is important in ensuring effective management of cases and for empowering patients to prevent re-infection. Counselling enables us to deal with delicate issues of human sexuality, clarify misconceptions about STDs, and the stigma often attached. Communication between partners about STIs is required for effective management. Symptoms may disappear before completing medications and some STDs are asymptomatic. Medication regimes are long and sometimes different and the drugs may be many. For some diseases complications are life long consequences which a person may have to cope with.

**Unit goal:**

To equip trainees with basic counselling skills for effective management of STD clients

**Learning objectives:**

At the end of the Unit, trainees shall be able to:

- Explain the meaning of counseling.
- Discuss the roles of a counselor
- Explain why counseling is important in STD management.
- Describe qualities of a good counselor.
- Demonstrate effective counseling skills in STD situations
- Demonstrate preventive counselling emphasising condom use.

**Content outline:**

- Meaning of counselling
- The role of a counselor in STD management
- Qualities of a good counsellor
- Why counseling skills are important in STD management
- Essential counselling skills
- Issues for counseling in STD management
  - Partner notification,
  - Treatment compliance,
  - Complications of STDs
  - Recurrent and incurable STDs.
  - Relationship between STDS and HIV/AIDS
- STD Preventive counselling
  - Barriers in condom use and common misconceptions surrounding condom use
  - Demonstration of condom use
  - Negotiation skills for condoms.
  - Other safer sex practices

**Procedures:**

**Activity 1:** Introduction of meaning of counselling:

Step 1: Trainees brainstorm the meaning of counselling.

Step 2: Summarise and clarify on the meaning of counselling

**Activity 2:** Discussion of the roles of a counsellor:

Step 1: Trainees brainstorm on the roles of a counselor

Step 2: Summarise and wrap up on the roles of a counselor in STD management

**Activity 3:** Description of the roles of a good counsellor.

Step 1: Trainees brainstorm on who a good counselor is

Step 2: Trainees demonstrate the qualities of a good counsellor through a role play

Step 3: Lead trainees to critique the role play

Step 4: Summarise and wrap up on the qualities of a good counsellor

**Activity 4:** Importance of counseling in STD management

Step 1: Discuss the importance of counseling in STD management

Step 2: Discuss the need for referral for HIV VCT services

Step 3: Participants brainstorm on the available referral sites for HIV VCT services

Step 5: Summarise and wrap up the session

**Activity 5:** Discussion of essential counseling skills in STD management:

Step 1: Trainees divide into three groups and discuss essential counseling skills in their respective groups

Step 2: Groups present in the plenary

Step 3: Highlight the essential counseling skills in STD management

**Activity 6:** Demonstration of effective counseling skills in STD management

Step 1: Divide trainees into three groups into which they develop role plays on different STD management situations

Step 2: Trainees present the role plays

Step 3: Lead participants to critique each role play to bring out essential counseling in STD management.

**Hints to facilitator:**

Practical training should be arranged prior to the training in a setting like an antenatal clinic or in out patients departments.

**Teaching materials:** Newsprint, markers masking tape, chalk and board, role play scripts, condoms, penis models, case studies,

**Evaluation:**

Observation of role plays,

Questions and answers

## TRAINER'S NOTES

### COUNSELLING IN STD MANAGEMENT:

#### Meaning of counseling:

Counseling is a helping relationship where a counselor helps a client to identify and analyse his/her problems, explore possible options and come up with realistic action plans. Counseling therefore is a way of facilitating someone to explore their needs and discover their strengths and resources.

Qualities of a good counselor:

1. **Empathetic understanding:** This is the ability to cognitively and emotionally experience the world from the other person's perspective and help them cope and be able to stand up on their own feet as soon as possible
2. **Genuine sincerity:** The ability and willingness to be open, real and consistent in the relationship with the client. A counselor should be prepared to give time and attention to the client
3. **Unconditional positive regard:** The ability to communicate with the client without blame or negative feelings and making them feel they are accepted.
4. **Emotional stability and maturity:** The counselor should be a mature person who can handle his / her problems and anxieties effectively
5. **Warmth.** The counselor care and respects clients
6. **Knowledgeable:** The counselor should be well trained and equipped with the basic knowledge and skills such as basic facts about STIs and HIV/AIDS, Communication skills in counseling, positive attitudes in counseling etc.

A health worker can help people by using simple counseling rules. These are, being a good listener, taking time to counsel, being concerned about clients' issues, being available when clients need you, establishing trust and confidentiality with client, being consistent in all that you say, with correct and accurate information and being empathic

It is also important when talking to clients to avoid:

- i. Telling them what to do, e.g. go and use condoms
- ii. Doing all the talking, allows the client to do so to.
- iii. Using complicated or confusing words e.g. "it seems you have bacterial vaginosis". You can say "you have an STD that brings vaginal discharge"
- iv. making promises that can't be kept e.g. "I will see you on Sunday"
- v. Giving false reassurances e.g. "These sores will not come back if you take these drugs" when dealing with somebody with genital herpes.
- vi. Being judgmental e.g. "how can you sleep with all these women in 2 days!"

The following are practical counseling hints for health workers.

**1. Being available.** This means that you must take time to talk with people and listen to their concerns. Sometimes this may mean not doing something else in order to have time with someone. Other times, it may mean making arrangements to come back and talk to someone at a later date. Being available is often as much a way of thinking as it is a matter of time.

**2. Listen actively.** It is important to listen to what a person is saying. This means listening to their words and listening to how something is said. It is important to hear how a person sees his situation. Listening is by far the most important component to good communication. Part of learning to listen involves reproducing behaviour that accompanies “active listening”. Behaviours that indicate active listening include:

- i. Meeting clients at a place that is comfortable and private or talking softly.
- ii. Maintain eye contact.
- iii. sit quietly while the other person is talking
- iv. Acknowledge the person talking by nodding or using words as “then”, “and” etc. These kinds of words encourage the client to keep talking.
- v. Give clients time to think, ask questions and talk.
- vi. Every now and then restate and paraphrase what the person has said in order to check that you understood it correctly. Ask the client questions in order to clarify.

**3. Use effective questions.** Unless you ask questions effectively, you can never know the line problem of the client. Asking questions that can yield answers to help solve the problems of the client requires:

- i. using a friendly tone that shows interest and concern and friendliness.
- ii. asking one question at a time and waiting for an answer. clients get mixed up with many questions especially with their disturbed emotional state.
- iii. asking questions that cannot be answered “yes” or “no”. Ask open ended questions that encourage clients to say more. For instance, instead of asking “are you married?”, ask “ tell me about your life”
- iv. avoid starting questions with “why” which sounds as if you are finding fault with the client. For instance, instead of asking “Why didn’t you use a condom?”, ask “ You didn’t use a condom, what happened?”.
- v. must be able to ask the same question in many different ways if the client hasn’t understood the question.

**4. Provide accurate and complete information.** Through questions and discussion

- i. use short words and sentences.
- ii. use words the person understands
- iii. use pictures whenever they are available
- iv. use stories to help a person to understand
- v. stop from time to time and ask clients if they understand
- vi. ask if they have questions
- vii. repeat instructions
- viii. ask them to repeat instructions to check if they have understood the important messages or actions

**5: Notice any non verbal communication.** It is important to be able to notice any non verbal communication that the client exhibits. That is being sensitive to his body movements. Many clients may not be able to talk but you can notice his movements and interpret these movements and ask him what he feels. A client may sit with his legs as entwined together and arms too. He may be tense and cold. A client may fail to talk or may get numb. He may be depressed, tense, stressed, or not at ease to talk or angry. A client may cry, be sad or happy. Therefore it up to the counsellor to be able to interpret this behaviour to be able to solve this clients problem.

**6: Discuss sensitive topics with ease.** Demonstrate ease when talking about topics normally avoided in ordinary social life. The ability to talk and ask questions about sex and sexuality, including unusual or taboo practices in such a way that clients will respond honestly without taking offense must be practiced. Often generalising questions to other people will allow a person to talk more freely at the beginning of a counseling session. For example you may say “some people believe that you can only get AIDS only from bar girls”. By beginning with what “other people’ do, you indicate that the client is not alone in whatever risk behaviour is being practiced and that you are familiar and at ease when discussing the issues.

**7: Respect the clients rights and confidentiality.** Anyone who counsels should care about people, which doesn’t necessarily mean liking everyone. It means recognising the individual as a person with hopes, family, friends, and rights of their own. Trust and confidentiality are cornerstones of counseling. Many of the things which are discussed are sensitive and personal. If the information is not kept confidential, trust may be lost and you can no longer be a source of support.

**A FINAL HINT:** Remember you will only succeed to the degree that you can communicate effectively at the client’s level of comprehension.

**Situations in STD management where counseling is particularly important:**

In the management of STDs, counseling issues revolve around prevention and care and ultimately behaviour change. Pertinent issues to be addressed include

- i. Partner notification / contact tracing and treatment for both
- ii. Ensuring treatment compliance
- iii. Prevention of STDs and re-infection, safer sex with emphasis on condom use
- iv. complications of STDs e.g. Infertility, chronic PID,
- v. Recurrent and incurable STDs like genital herpes
- vi. Education about high risk groups e.g. barmaids, sex-workers, truck drivers
- vii. Relationship between HIV/AIDS and STDs
- viii. Referral for HIV counseling and testing
- ix. Follow up after treatment
- x. Client education on basic facts about STIs and HIV/AIDS

**Case study I for activity I**

Maria Musoke is a married woman with 5 children, and lives in a rural area of about 50 kms from a trading centre. She has been having children every year, and it has been difficult for her. She has to move 50 kms on foot to the trading centre to deliver her babies and they usually get sick too. She has a friend, Mrs. Mutabazi who is married too but is not so hard up with children's health. She has 3 children who are well spaced too. They rarely get sick and her economic status is good, so at times, she rides to get to the health centre. Mrs. Mutabazi used family planning, so Maria decided to go and ask why Mrs. Mutabazi wasn't finding problems with caring for the children. She also went further and explained her economic problems. Mrs. Mutabazi was so good, she told Maria how she knew about family planning, what it does and how she had benefited from it. She was also sympathetic about Maria's problems and situation. Maria after this discussion with her friend decided to take herself to the clinic.

Four years later, after Maria had had no more children, and her economic status had improved. She could now earn money of her own and was planning to buy a bicycle to take her goods to the market in the trading centre.

**Role play 1 for activity 9**

An STD client aged 18 years, female, has sores which come and go whenever she has her periods for 2 years. She has been treated several times without a cure. She also has a greenish discharge which started 2 weeks back. She has never got any treatment for this. For the last 2 months, she has had as many as 8 partners. Counsel this patient including partner notification, treatment compliance; follow up, complications and prevention in the counselling session. Also remember this STD client is in a vulnerable group, risk group, and has genital herpes.

## UNIT 15

### ORGANISING STD SERVICE DELIVERY AND INTEGRATION IN

#### REPRODUCTIVE HEALTH SERVICES:

**Duration:** 1 hour, 30 minutes

**Introduction:**

A comprehensive STD service delivery system should include integrated clinical service with a good referral system, data and record keeping, proper supervision and a consistent and adequate supply of appropriate drugs. An efficient STD care services delivery is a central element in the control and prevention of STDs in a community.

**Unit goal:**

To equip trainees with the ability to set up and operate comprehensive integrated STD care services delivery in their community.

**Learning objectives:**

The trainees by the end of the unit be able to:

- List the functions of existing primary health care services
- List the equipment and supplies necessary for STD services delivery.
- Describe a conducive setting and a schedule for provision of STD services.
- Describe the importance of keeping good records for patients and supplies.
- Demonstrate ability to record relevant information, findings and treatment for common STD syndromes by filling various forms correctly.
- Demonstrate ability to make good and regular reports and accountability for supplies
- Explain the important elements of monitoring and supervision.
- Explain the important elements of STD surveillance.
- Define and explain integration of STI services into other health services

**Content outline:**

- Functions of STD services delivery.
- Equipment and supplies required in STD service delivery.
- Organising STD clinic services
- Record keeping and reporting.
- Supervision and monitoring of STD services delivery
- STD surveillance.
- Integration of STI and reproductive and health services

**Procedures:**

**Activity 1:** Introducing the Unit

Step 1: Give a short lecture introducing the objective and components of the Unit.

**Activity 2:** Listing the main components of STD service delivery.  
Step 1: Lead a brain storming session on the components of STD service delivery.  
Step 2: With trainees in groups, let them discuss components of STD care services  
Step 3: Let the groups present their findings to the plenary.  
Step 4: Summarise and wrap up

**Activity 3:** Listing materials, equipment and supplies essential for STD care delivery  
Step 1: Let trainees brainstorm on materials and supplies for STD care services  
Step 2: Wrap up

**Activity 4:** Discussing the organisation of STD clinical services.  
Step 1: Let trainees describe the flow of STI clients .  
Step 2: Ask the trainees to describe how STI delivery will be incorporated into existing clinical services.  
Step 3: Wrap up.

**Activity 5:** Discussing the Keeping of proper records.  
Step 1: Introduce the available record forms.  
Step 2: Lead a discussion on the importance of each item on the forms.  
Step 3: Divide the trainees into groups to practice on how to fill in the forms  
Step 4: In the plenary, lead a discussion on the problems encountered in filling in the forms and how to overcome them  
Step 5: Lead a discussion on the importance of good record keeping.

**Activity 6:** Discussing STD report writing, monitoring and supervision.  
Step 1: Let trainees brainstorm on the importance of the above.  
Step 2: Lead a discussion on elements of a good report and supervision checklist.  
Step 3: Lead a discussion on supervision and monitoring indicators for STD service delivery.  
Step 4: Summarise and wrap up.

**Activity 7:** Discussing integration of services  
Step 1: Define and explain the concept of integration  
Step 2: Let trainees brainstorm on how STI services will be integrated into reproductive health services

**Hints to facilitators:**

- Ensure that the process is interactive
- Stress that trainees should train other providers at the health unit after the training

**Teaching Materials:**

Newsprint, markers, STD forms, Supervision checklists, handout on monitoring indicators and scripts for role plays

**Evaluation:**

- Test on specimen report writing.
- Observation of trainees filling in the forms
- Questions and answer.

## TRAINER'S NOTES

### ORGANISING STD SERVICES DELIVERY AND INTEGRATION INTO REPRODUCTIVE AND OTHER HEALTH SERVICES:

#### Introduction

The provision of early and effective diagnosis and treatment of sexually transmitted diseases (STDs) is the cornerstone for STD control. Appropriate STD diagnosis and management requires provision of non-stigmatising, acceptable, accessible and affordable services for persons with STDs. The most effective way to reach this goal is to provide STD care services within the reach of the community by incorporating them into primary health care (PHC) services and family planning (FP) and maternal and child health (MCH) services.

Whereas there is a role for dedicated STD clinics in teaching, referral and reference centres, there is little justification for setting up stand-alone clinics dedicated exclusively to the diagnosis and management of patients with STDs. Additional problems are encountered and access to STD services is reduced by holding special sessions for STD patients within PHC, FP and MCH clinics. Vertical STD services may be more convenient for the clinic staff but, from the point of view of the STD patients, the restricted opening hours and special days of operation are unacceptable because of the potential delay in diagnosis and treatment and because of the possibility of stigmatisation of persons attending dedicated STD clinics. In addition, from the public health point of view, any obstacle to the timely diagnosis and appropriate management of STDs potentially contributes to the spread of these infections in the community.

Therefore all PHC clinics should provide comprehensive health care for the community including care for STDs. Efforts should be made to provide PHC services, including STD services, whenever the health unit is open. Whenever possible, diagnosis, treatment and education/counselling services for STD patients should be offered during the patient's first visit to the clinic. Experience has shown that many STD patients are unwilling or unable to attend more than once for these services.

#### Functions of STD Services

The functions of STD services include the:

- Detection STDs including HIV infection and offer prompt and appropriate treatment
- Advice on treatment compliance and follow-up procedures
- Management treatment failures
- Ensuring that the patient's partner(s) are evaluated and treated
- Counselling on disease prevention including the use of condoms
- Identification other health problems and, if necessary, to manage them or refer the patient to other appropriate health services
- Compilation records of clinical activities and reporting data
- Use these data to evaluate the services, order supplies, plan for future needs and facilitate disease surveillance and trend analysis

## **Organisation of the Patient Management Process**

- patient registration and recording of basic information
- patient education while waiting to be seen by the clinician (posters, leaflets, educational talks and demonstrations, films etc.
- clinician consultation including greeting, history taking, examination, specimen collection, diagnosis, treatment, counselling, specific patient education, partner and contact notification etc.

## **Basic requirements of STD Clinical Services**

Basic requirements for STD services delivery in a health unit include:

### *i. Staff*

- a clinician for diagnosis and treatment of patients
- an assistant to assist the clinician during examination and to help collect specimens and administer treatment
- a counsellor to assist in patient education and counselling and partner/contact notification and tracing
- a clerk for registering patients, maintaining records and preparing statistics
- a secretary to type correspondence, arrange meetings etc.

### *ii. Materials, Equipment and Supplies*

These include consultation/examination room with provision for privacy, examination couch, stirrups (if vaginal examinations will be performed), bed sheets and screens. Other equipment include: a desk or writing table and chairs, speculum, bowls, torch or other source of light, drinking water, drug box, bucket, emergency kit for treatment of anaphylaxis, condom demonstration models (model penis) and STD Treatment Guidelines and treatment algorithms. Consumable items required include: drugs for STD treatment, batteries, disinfectant (e.g., dettol or jik), record books and related forms, condoms, water for injection, syringes and needles, gloves and cotton wool

## **Reporting Forms**

Records of STD clinical activities are the primary data upon which most STD data and reports are based. Such patient records typically include basic demographic information about the patient (i.e. age, sex, address etc.) and information about the patient's clinical presentation, diagnosis and treatment prescribed. It is important to collect data about STD patients on a regular basis because these data are necessary:

- to assess the size of the STD epidemic
- to assess the services being delivered
- to plan for the human and material resources needed
- to monitor and evaluate the efforts to prevent and control the STD epidemic

Any summary or report that is written about STDs is based on data collected at the time STD patient are seen. Hence, the information contained in the reports can be no more accurate than the basic data from which they are drawn. Therefore, it is critically important to record accurately the information requested concerning STD patients. This will help to assure that the accumulated data provides the best possible picture of the true STD situation in the community and at the health unit.

## **Writing Reports**

STD reports are the statistical and narrative summaries of these patient records that are compiled and analysed periodically for use at the health unit level. These reports are also forwarded to the district and national levels where they are combined with other reports and data sources to help describe the STD situation in the country.

The first step in making a report is to collect all the pertinent recorded data about STD patients that are available at the health unit. These raw data may be found on clinic records, tally sheets and in detailed clinical notes of individual patients. The required information is then extracted from these primary sources and presented in the form of a statistical and narrative summary of activities for a particular period of time. The easiest and clearest way to present this sort of information is in a series of simple tables or graphs accompanied by written descriptions. The reports should be retained for use at the community and local health unit level in addition to forwarding them for use at the district and national levels.

### **Monitoring**

Monitoring is a continuous process used to promote and maintain the delivery of efficient and high quality STD services. The purpose of monitoring is to ensure that work is progressing as planned and to anticipate or detect any problems in implementation. The monitoring process focuses attention on the implementation of activities. Some examples of monitoring activities for STDs include checking on the availability of adequate supplies for the diagnosis and treatment of STD patients and supervising the clinical performance of health workers at the health unit level.

### **Support supervision**

Supervision is one of the most important methods used in monitoring. Properly conducted supervision is non-threatening to the person being supervised and should be designed to assess job performance and ensure competence through observation, discussion, support and guidance. Supervisory checklists that might be used to monitor STD service delivery include the following elements:

- details about the clinic facility, i.e. name, type, location etc.
- details about the supervisory visit, i.e., name of supervisor, name of person met, the date and time of the visit etc.
- list of the established staff at the clinic by name and cadre noting if they were seen during the supervisory visit
- list of clinical equipment noting if each item is present and in working order
- review of clinical case management by sitting in on patient/clinician sessions and reviewing records - are diagnoses made correctly?, is the proper treatment given?
- review of the records to ensure that all data is collected and recorded legibly
- Review reports to ensure they were written, they reflect the primary data kept at the clinic and that they are consistent in comparison to other data such as drug use etc. record of questions asked and topics discussed with the health unit staff.

### **Further reading:**

1. Van Praag E, Knippenberg R. Issues of Integration of STD programmes into Health Care Systems. In Delabetta G, Laga M, Lamptey P. Eds. Control of Sexually Transmitted Diseases: A Handbook For The Design And Management Of Programs: AIDSCAP/Family Health International

## UNIT 16

### COMMUNITY EDUCATION ABOUT STIs

**Duration:** 2 Hours.

**Introduction:**

The high prevalence of STIs in Sub Saharan Africa is partly due to the poor health seeking behaviour and also due to lack of awareness of STD symptoms. A lot of STDs go untreated, unreported and unnoticed until they result in serious complications. Most of those infected never come to the clinic for treatment. STDs affect more than one person at a time and prevention requires changes in attitudes and sexual behaviour. Health workers have a responsibility to educate the community about how to recognise STDs and importance of early and proper treatment and prevention.

**Unit goal:**

This unit is designed to equip trainees with the knowledge and skills necessary to carry out effective community education campaigns against STDs.

**Learning objectives:**

At the end of the session, trainees should be able to:

- Identify key people to work with in order to organise community education.
- List events and meeting places where they could conduct STD education.
- Describe activities one needs to make in preparation for community education.
- List ways health workers can identify with their audience and learn their education needs.
- State the priority messages for community education on STDs
- Describe appropriate communication methods for educating different groups.
- Demonstrate effective group communication skills.

**Content outline:**

- Key individuals to work with in organizing community education events
- How to mobilise community education events
- How to prepare education activities
- How to design the presentations:
- Group presentation skills.
- Key STI education messages

**Procedures:**

**Activity 1:** Brainstorming on how to mobilise a group for health education.

Step 1: Ask trainees the steps for mobilising a group for health education.

Step 2: Summarise and wrap up.

**Activity 2:** Small group work on how to mobilise for a community education event.

Step 1: With trainees in small groups, give each group a copy of the case study in the trainer's notes. Allow 10 - 15 minutes to discuss what went wrong.

Step 2: In a plenary, lead a discussion resulting in a list of the steps health workers should follow when mobilising and preparing for community education.

**Activity 3:** Learning about the audience in designing community education

Step 1: Give a presentation of an irrelevant health topic such as the care of frost bite victims or liver transplant patients, using inappropriate language, without bothering to check if trainees have understood and using visual aides that are inappropriate and difficult for trainees to understand, accuse the trainees of contributing to the problem. Limit your presentation to 5 minutes. Leave abruptly after saying that you hope all have understood.

Step 2: Lead a discussion about how the trainees reacted to this, drawing out the importance of learning about the audience before designing a presentation.

Step 3: Ask trainees how they can learn about the audience before a presentation.

**Activity 4:** Other methods of delivering community health education:

Step 1: Ask trainees what other methods besides lecture and discussion that they could use to make community health education more interesting, giving advantages and disadvantages of each.

**Activity 5:** Discussion of preparations for community education events:

Step 1: Using well prepared newsprint or transparency, give a short lecture about effective preparation and use of visual aids. Practice what you preach.

**Activity 6:** Brainstorming on priority messages for a community event:

Step 1: Ask trainees what they think the most important messages about STDs should be. Write these on newsprint.

Step 2: Then share the priority messages suggested by STD/ACP.

**Activity 7:** Practical demonstration of a community education event:

Step 1: With trainees in groups of not more than 5, let trainees prepare a presentation about STDs. The groups should then conduct half hour study presentations with their assigned communities. Trainers should accompany groups to give feedback.

Step 2: In the plenary, each group should give reports about their experiences.

**Hints to facilitator:**

- Arrange for practical session with community groups in advance.

**Teaching Materials:**

Newsprint, markers, chalk and board, case study, visual aids on STDs, Hand out of STD/ACP priority messages, overhead projector, Video monitor, Blank transparencies

**Evaluation:**

Observation and feedback

Questions and answers

## TRAINER'S NOTES

### COMMUNITY EDUCATION ABOUT STDs:

Health workers will have the greatest impact on preventing STDs if their educational efforts go beyond the health facilities. Most people do not know how to recognise the signs and symptoms of STDs or what to do should they experience those symptoms. There are several ways you can reach the people who don't visit your health facilities.

- You can give brochures or pamphlets about STDs to your clients and ask them to share them with others.
- You can put up posters for the community.
- You can organise and conduct community education events like film shows, group talks or drama presentations.

This Unit will focus on how to conduct community education events.

#### **Planning for Community Education:**

Community education events are most successful when they are carefully planned and prepared. When planning an event, it is important to ask yourself the 5W's and 1 H:

**Who?** Who is your audience? Do you want to educate every one in the community or you would like to segment your audience by age or other criteria?

**Why?** Why do you want to educate your audience? What is the objective of the event? In most cases, you will want your audience to help prevent the spread of STDs by recognizing signs and symptoms and seeking appropriate treatment, and notifying their partners. In some cases, there may be a special problem that you have noticed among your clients or in the community and you want to tackle it. For example, there may be serious rumours about the effectiveness of condoms that you want to dispel.

**What?** What information do you want to get across your audience? In order to establish this, you need to take into account the knowledge, attitude and practices of your audience. Sometimes you may decide to conduct education because of a problem that you have noticed among your clients. At other times you may want to educate as wide an audience as possible with general information about STDs and how to prevent them.

**Where?** Where will you hold the event? This will depend a lot on who your audience is, how many people you expect to attend, what you intend to discuss, and how you will put your message across. For example, if you plan to use a video, then you will want a venue with electricity, seating and a place to set the video monitor. If you are going to address a large crowd, then you may decide to hold the event outside in a central location.

**When?** When will the event take place? You may decide to hold the event on a week end, in the morning or in the evening. This will depend on your audience, when they are most likely to attend? Give yourself enough time to prepare and publicise the event.

**How?** How will you get the information across to the audience? You should select a method that will best clarify and illustrate information, and hold the attention of the audience. Some suggestions are: discussions for groups of 15 or less, videos or films for large groups and for youth, drama presentations for older men or women, contests or quizzes for youths, or lectures for groups of 15 or more or a combination of these.

**Organising the event:**

Once you have answered the above questions, you can now organise the event. Organisation includes 4 steps.

**Step 1: Mobilising the Audience:** There are 2 ways of mobilising the audience. Both begin by introducing yourself to the local leaders first, and explaining the purpose of the event. Often, you will find the leaders are very interested in helping with the organisation of the event. Once you have introduced your self to the leaders, you may decide to work only with existing community groups. The advantage of this method is that you will not have to publicise the event so vigorously since organised groups will most likely be having regular meetings. They may be able to schedule the event as part of their regular meetings. The disadvantage is that you will be able to reach people who are members of the group. You may decide to organise a community event. The advantage of this approach is that you will reach a larger group of people. The disadvantage is that it will involve more work to publicise the event and you will have less information about the audience around which to plan your messages and the educational methods. If you have introduced yourself to the community leaders and asked their help, they will be able to call the people to your event. To make sure that as many people as possible attend, you can also put up posters inviting community members and tell all your clients so that they also spread the word.

**Step 2: Learning about the Audience.** Your event will be most successful if you tailor your messages to the educational needs of your audience. The only way you can do this is to learn a little about your audience. In particular, it is helpful to know:

- the age of the group members
- how many they are in the group
- the group's interests
- whether the group is men, women or both.

There are a couple of ways of learning about the audience. If you are planning the event for an organised group, you can ask their leader about the members. If you are planning a community event, then you ask the audience a few questions at the beginning of the event and adjust your messages accordingly. You can also base your messages on the educational needs of your clients since they are part of the community.

**Step 3: Preparing the venue and visual aides.** Before the day of your group talk, confirm the time and place. Be sure that seating arrangements are in order. Collect and organise your visual aids. Prepare any handouts you want to give to the group. Be sure you have enough copies for all. Check any equipment that you will use in advance.

It is important to prepare an outline for talk. Include the following information:

- Topic                      What will you talk about?
- Objectives                What do you want the audience to know or do after the talk?
- Main points              What are the most important points of your talk?
- Questions                What questions can you ask the audience to start discussions?
- Visual aids               Posters, flip charts, pamphlets, or models will you use to show the main points.

There are many different types of visual aides you can use to help your audience understand important points. When used correctly, visual aids assist you to:

- hold people's attention longer.
- explain sensitive points such as condom use.
- provide similar information to every person you talk with.
- show your interest in your audience's understanding, and
- describe the internal organs of reproduction.

Visual aides may include posters, flipcharts, videos, brochures, anatomical models etc. They should be chosen carefully so that they illustrate important points that you want to make. Visual aids must be large enough for everyone in the group to see and they should be simple enough for them to understand. Not every visual aide is right for presentation. You should first plan the objectives and content of presentations and then make appropriate visual aides for the talk. Visual aides illustrate the presentation. They are not the reasons for the presentations.

**Step 4: Conducting the event.** The first rule of a successful health education event is to be on time. If you appoint a specific time for the event, then be there and ready to begin at the time. The second rule is to prepare well in advance. Don't leave preparations until the last minute. So if you are going to show a film, set up the equipment well in advance. The third rule is to practice what you are going to say. The following is the list of steps you should follow when conducting a group talk:

- Introduce yourself and the topic of your talk.
- Encourage group participation
- Guide the discussion and encourage everyone to talk.
- Encourage people to respond to each others' questions.
- Use clear correct information and answers using flip charts, films or posters.
- Use simple, clear and understandable language.

### **CASE STUDY**

Mary is a nurse who works at a health unit in Uganda. She has been trained in the syndromic approach to STD care. She has noted that very few of the women she treated for STDs have been able to bring their partners for treatment. So she decides to conduct a discussion with the men in the community. She puts a sign on the front of the maternity unit , informing them to come to a public meeting at the maternity unit on Friday at 10.00am. Then she starts to plan her talk.

When she attended the training in the syndromic management for STDs, she had received a sample of a group discussion guide. So she digs it out of her notes and reads it over. It is the outline of a health talk about STDs for adolescent girls, but it looks like it will

work. Her notes also shows that she should show a video called “ More time” a story about a school girl in Zimbabwe who is deciding whether or not to have sex with a boyfriend. Mary thinks this will be good video to show to the group, so she requests a copy from the Health Education Division.

On Friday morning, Mary starts her ANC as usual. It is a very large clinic that day. By 10.00, there are still 20 - 30 women waiting to see her when a few men start appearing at the waiting crowd. Mary decides to finish with her ANC before she begins the presentation. At 12.00, Mary is finished with the ANC. There are still 5 men still waiting but several others have left. She begins to set up the video machine but discovers that there is no extension cord long enough to reach from the outlet in the immunisation room. She asks the waiting men if they know where to get a long enough cord and one says he does. He runs off to get it.

While still waiting, one of them approaches Mary and asks her what the purpose of the meeting. Mary replies that she will explain that later and asks the man to take his seat. To this, the man explains he is the LC I Chairman of the area and wants to know why she arranged the meeting without consulting him. Mary introduces herself to the man and explains that she didn't think she had to consult before organising an educational talk. She asks the him why few so few men had come. The Chairman explains that most men probably didn't know about the meeting since she did little to publicise it and that since most people in the community are Moslems, the men are at the mosque praying.

Then the man returns with the extension cord. He assists her to set up the video machine. Mary then tells the five people that she wants to talk to them about STDs and how to prevent them. She tells the men that she has a video to show them first. One of them suggests that they postpone the video until there is a larger group to watch. Mary agrees. After all it is now almost 2.00pm and the men are hungry, so is Mary. They agree to help her organise another meeting the following week when more men will be available.

### **KEY MESSAGES ON STDs FOR THE COMMUNITY THAT. MAY BE USED**

1. STDs are a real danger to your health. They make it easier to get HIV infection and can cause other problems like infertility for both men and women.
2. If you have a swelling, wound (sore), abnormal discharge or any discomfort around the genitals, you could have an STD and need to see a health worker.
3. Most STDs are curable if treated correctly.
4. You can avoid STDs either by sticking to one partner who is not infected, by abstaining from sex, or by using condoms correctly every time.
5. To get cured of STDs, all sexual partners must be treated and abstain or use condoms until the treatment is completed.
6. Take all your medication as instructed even if symptoms disappear or you feel better.
7. After treatment, return to the health worker to be sure you are cured and avoid re-infection, ensure that all your sexual partners receive treatment and use condoms.

#### **Further reading:**

1. Romocki LS, Gilbert S, et al. An Approach to effective communication. In Delabetta G, Laga M, Lamptey P. Eds. Control of Sexually Transmitted Diseases: A Handbook For The Design And Management Of Programs: AIDSCAP/Family Health International

## UNIT 17

### LABORATORY SERVICES IN STD MANAGEMENT AND CONTROL

**Duration:** 1 Hour.

**Introduction:**

The syndromic approach to STD case management is designed to improve STD diagnosis and treatment at health care facilities where laboratory tests are not readily available, but it can also be adapted for use when such testing is available. Laboratory support is needed to detect asymptomatic infections, to detect infections that do not have signs and symptoms, to monitor resistance to antibiotics and to validate STD syndrome aetiologies and treatment algorithms. The need for laboratory services differs at different levels of health care from PHC facilities to National Reference laboratories and Research labs.

**Unit objective:**

This unit is designed to enable trainees to appreciate and determine the appropriate level of laboratory support for their STD programmes. Trainees should also be conversant with procedures for obtaining and handling laboratory specimens where necessary.

**Learning objectives:**

At the end of the Unit, trainees should be able to:

- List essential laboratory tests for STD diagnosis.
- List laboratory tests required at different levels of service delivery.
- Discuss the role and limitations of laboratory tests in STD management.
- Describe the correct methods for requesting laboratory tests
- Describe procedures for obtaining and handling laboratory specimens correctly.
- Demonstrate ability to interpret laboratory results correctly.

**Content outline:**

- Essential laboratory tests for STDs
- Laboratory tests required at different levels of health care delivery system
- Role and limitations of laboratory tests
- Requesting laboratory tests and interpretation of test results
- Techniques for specimen collection and handling.

**Procedures:**

**Activity 1:** Introduction of the Unit.

Step 1: Give a short lecture introducing the unit and its objectives.

**Activity 2:** Enumeration of essential laboratory tests for STDs.

Step 1: Ask the trainees to list the STDs laboratory tests they know.

Step 2: Summarise tests into different categories and clarify where necessary.

**Activity 3:** Identification of essential STI laboratory tests for different levels of STD service delivery.

Step 1: Guide the trainees to identify STI laboratory tests appropriate at different levels of health care.

Step 2: Summarise and wrap up.

**Activity 4:** Discussion of roles and limitations of laboratory tests in STD management.

Step 1: Brain storming on the role and limitations of a laboratory in management of STDs.

Step 2: Wrap up the discussion and clarify on any unclear issues.

**Activity 5:** Discussion and demonstration of techniques of specimen collection and handling and interpretation of results

Step 1: Lecture on the procedures of specimen collection and handling

Step 2: Practical demonstration on specimen collection and handling using models and clinical setting if possible.

Step 3: Get feedback from the trainees and wrap up.

**Activity 6:** Discussion of requisition of laboratory tests and interpretation of results

Step 1: With trainees in groups, let them complete requisition forms for different conditions. Each group should present to the plenary discussion. Summarise and wrap up.

Step 2: Ask three different groups to draw a chart relating condition, specimen, laboratory test and results giving. Each group should deal with different conditions. They should present to the plenary. Summarise and wrap up

**Hints to facilitator:**

1. Where possible, RPR demonstration should be done and ensure trainees have understood the meaning of a positive RPR.
2. Facilitators should emphasise that laboratory test results are not necessary to take treatment decisions.
3. Facilitators should make pre-arrangement for a practical session in an appropriate place.

**Teaching materials:**

Newsprint, markers, slides, relevant laboratory supplies, biological samples, models, etc.

**Evaluation:**

Questions and answers during sessions

Observation of trainees

## TRAINER'S NOTES

### LABORATORY SERVICES IN MANAGEMENT:

#### **Introduction:**

With the syndromic approach to STD case management, the use of a laboratory is limited as far as case management of STDs is concerned. However, the laboratory still has a role in test of cure, research studies for validation of STD syndrome aetiologies and anti microbial susceptibilities and for screening for STIs among asymptomatic individuals such as syphilis among pregnant women using the RPR test. Accordingly, the needs for laboratory services differ according to level of care.

Therefore, it is clear that laboratory services are not absolutely necessary for taking treatment decisions among symptomatic patients. Treatment should not be withheld from symptomatic patients on grounds of waiting for laboratory tests. Laboratory specimens could be taken if necessary but treatment should commence immediately, since experience from many places shows that many clients usually don't report back for laboratory test results.

In addition, Laboratory services are usually expensive to set up and may not be universally available. So STD service delivery should not wait for setting up of laboratory services. Furthermore, referrals for STD care delivery are usually not necessary and under the syndromic approach are left only as last resort to intractable cases. Experience has shown that even in the cases where the patients are referred, only few go to the referral centres. For this reason, every opportunity should be used to avail treatment at the first contact with the patient.

Where laboratory services are available, it should be stressed that it is the responsibility of the clinician to take off the specimens and not the laboratory staff in most cases. It should be clearly understood that using a wrong technique in taking off specimens may affect the test results.

Interpretation of the laboratory results should be done by the clinician who takes the clinical picture and the results in totality after taking into account the patients' history and clinical signs including history of previous medication.

#### **Laboratory tests that should be available at different levels of care delivery:**

##### **1. Peripheral Health unit:**

At this level, simple laboratory tests for screening of STIs can be available. They include:

- i. RPR card tests for syphilis screening.
- ii. Wet mount preparation and microscopy for trichomoniasis
- iii. Microscopy of stained smears of discharges and occasionally ulcer exudates
- iv. Microscopy for diagnosis of bacterial vaginosis.
- v. Potassium Hydroxide ( KOH ) preparation on vaginal discharges and balanitis for the diagnosis of Candida vaginitis and candida balanitis

- vi. Rapid tests for HIV antibodies

## **2. District hospital:**

The district hospital should be able to avail the tests that are provided at peripheral health units and in addition if qualified staff are available, the following tests could be availed.

- i. Specific Serological Tests for Syphilis (STS) for active syphilis such as *Treponema pallidum* Heamagglutination test (TPHA) to confirm positive RPR or VDRL card tests.
- ii. Culture and sensitivity of urethral and cervical specimens for gonorrhoea but only if qualified staff are available.
- iii. ELISA test for HIV antibodies.
- iv. Dark field examination of ulcer scrapings or scrapings from skin lesions for the diagnosis of syphilis.

## **3. National Level:**

At the national level, all the above tests and others are necessary for research purposes and for management of complicated cases resulting from referrals. Such tests include:

- i. Molecular diagnostics based on PCR and LCR
- ii. Determination of antimicrobial susceptibilities and minimum inhibitory concentration of antibiotics for STI pathogens
- iii. Determination of STI prevalence in research settings.

### **Further reading:**

1. Van Dyck E, Behets F, et al. The STD Laboratory. In Delabetta G, Laga M, Lamptey P. Eds. Control of Sexually Transmitted Diseases: A Handbook For The Design And Management Of Programs: AIDSCAP/Family Health International

# APPENDICES

## APPENDIX 1: PRE / POST TEST

Participants Number ....., Date .....

- i. *Identify your script with your participant number which will be allocated to you at the beginning of the workshop and not your name. Keep your number through out the workshop. It is your private number which you don't need to disclose to any one.*
  - ii. *For each of the following questions, there is only one correct answer. Put a circle around the letter next to the most correct answer*
- 

1. Public investment in STI control is necessary because:
  - a. A vaccine for STIs is under clinical trials
  - b. STIs have serious health, socio and economic consequences
  - c. STIs are incurable
  - d. STIs are about to be eradicated
  - e. STIs are not common
2. In Uganda, resistance of *Neisseria gonorrhoea* is known to be resistant to the following drugs except
  - a. Crystalline penicilline
  - b. Amoxicillin
  - c. Tetracycline
  - d. Ciprofloxacin
  - e. Gentamycin
3. Which of the following antimicrobials in a first line drug in the management of STIs in Uganda
  - a. Metronidazole
  - b. Clindamycin
  - c. Miconazole
  - d. Rifampin
  - e. Pyrizinamide
4. Which of the following laboratory tests is not used in the diagnosis of syphilis
  - a. TPHA
  - b. RPR card test
  - c. VDRL test
  - d. Dark ground microscopy
  - e. E – test

5. During the management of syphilis in Uganda, counseling of patients is necessary in the following situations except
  - a. Condom promotion
  - b. Making a syndromic diagnosis
  - c. Treatment compliance
  - d. Partner notification
  - e. Referral for HIV voluntary counseling and testing
  
6. Which of the following laboratory tests would not be appropriate for a Health centre IV laboratory in Uganda
  - a. VDRL test
  - b. Wet mounts and microscopy
  - c. LCR test
  - d. RPR card test
  - e. Gram stain and microscopy
  
7. Which of the following is an STI syndrome
  - a. Amyloidosis
  - b. Neonatal ophthalmia
  - c. Nephrotic syndrome
  - d. Testicular torsion
  - e. Incomplete abortion
  
8. Which of the following statements about HIV and STIs is not true
  - a. HIV alters the severity of some STIs
  - b. STIs and HIV have no cure
  - c. HIV infections alters the severity of some STIs
  - d. STIs enhance the sexual transmission of HIV
  - e. STIs and HIV have the same behavioural risk factors
  
9. Which of the following is not a complication of STIs
  - a. Intra uterine foetal death
  - b. Ectopic pregnancy
  - c. Parkinson's disease
  - d. Secondary infertility
  - e. Cancer of the cervix
  
10. Which of the following organisms are likely causes of purulent cervicitis
  - a. Human papilloma virus
  - b. *Treponema pallidum*
  - c. *Chlamydia trachomatis*
  - d. *Haemophilus ducreyi*
  - e. *Calymatobacteria granulomatis*

11. Which of the following is not a true function of the genital organs
- Vas deferens transport sperms from the epididymis to the ejaculatory duct.
  - The testes produce hormones
  - Bartholini's glands produce lubricating fluids.
  - The cervix produces hormones
  - The Fallopian tubes are the usual site of fertilization
12. Which of the following STIs is not usually associated with lymphadenopathy?
- Chancroid
  - Gonorrhoea
  - Lympho granuloma venereum
  - Syphilis
  - Human immuno deficiency syndrome
13. Components of syndromic STI case management include the following except
- Provision or referral for HIV testing
  - Provision of condoms
  - Partner notification
  - Appropriate diagnosis
  - Prompt admission to medical ward
14. Which of the following STIs is caused by a virus
- LGV
  - Donovaniasis
  - Herpes simplex infection
  - Trichomonas vaginitis
  - Candida vaginitis
15. Primary prevention of STIs includes the following measures except
- Abstinence
  - Safer sexual practices
  - Prompt and effective treatment
  - Promotion of condom use
  - Mutual monogamy or faithfulness
16. Genital ulcers are usually caused by the following organisms except
- Human papilloma virus
  - Calymatobacteria granulomatis*
  - Herpes simplex virus
  - Heamophilus ducreyi*
  - Treponema pallidum*

17. Patients with STDs should have the following as part of the case management package except
- Counseling on treatment compliance
  - Notification and treatment of all sexual partners
  - Demonstration of condom use
  - Referral to another health facility for case management
  - Referral or provision of HIV voluntary counseling and testing
18. In Uganda, antenatal serological screening for syphilis should
- Be conducted only among prime gravidae
  - Routinely conducted on all women
  - Should be conducted only among women with genital ulcers
  - Be conducted using TPHA test
  - Not be done
19. Partner notification may not be necessary in some cases of patients with
- Vaginitis
  - Painless genital ulcer
  - Cervicitis
  - Urethral discharge
  - Bartholin's abscess
20. Primary prevention of STDs may be achieved through one of the following except
- Mutual monogamy
  - Safer sex
  - Condom use
  - Abstinence
  - Partner notification
21. Congenital syphilis in Uganda is treated with the following regime
- Benzathine penicillin 2.4 million units start
  - Kanamycin 2g single IM injection
  - Ceftriaxone injection, 125 mg single dose intramuscular
  - Tetracycline ointment every 6 hours for 14 days
  - Procaine penicillin, 50,000 IU per Kg body weight daily for 10 days
22. In Uganda, the following may be used in the management of Genital Ulcers except
- Benzathine penicillin
  - Acyclovir
  - Erythromycin
  - Gentamycin
  - Ciprofloxacin

23. Which of the following STIs is usually endogenous
- Trichomoniasis
  - Chlamydial infection
  - Syphilis
  - Vaginal Candidiasis
  - Lympho granuloma venerium
24. Which of the following is not true about syndromic management of STDs
- The labia should be separated and inspected
  - Examination is not necessary
  - The urethra should be milked if a discharge is suspected
  - The prepuce should be retracted to examine for discharge and lesions
  - Bimanual examination among females should be done
25. Which of the following signs/symptoms on its own is enough would constitute enough clinical evidence for diagnosis of AIDS
- Cryptococcal meningitis
  - Recurrent fevers
  - Persistent cough
  - Loss of weight of more than 10%
  - Generalised lymphadenopathy

## **APPENDIX 2:**

### **SAMPLE OBJECTIVES OF THE STD TRAINING WORKSHOP**

The workshop is designed to provide operational level health workers with up to date knowledge, skills and motivation, and to demystify sex and human sexuality to enable him / her to

1. Make appropriate diagnosis when presented with patients with complaints of Sexually transmitted infections
2. Provide appropriate treatment for such patients
3. Provide patient education and counseling to
  - Take all medication
  - Notify and treat partners
  - Use preventive measures such as condom use in future
  - Provide or refer for HIV counseling and testing
  - Seek early treatment in case of infections in the future
4. Design and deliver risk perception and preventive messages and interventions based on local sexual life styles and practices.
5. Organise and deliver STD care and prevention services in health services and the community
6. Train and support other health providers in delivery of STD care

## APPENDIX 3

### Sample Schedule for a Training of Health Workers in STD Management:

#### **Day 1**

5.00 pm           Arrival of participants and facilitators

#### **Day 2**

8.30 – 9.00       Registration of participants and distribution of materials

9.00 – 9.30       Self introduction, Workshop objectives and participants expectations

9.30 – 10.00      Pre test

10.00 – 11.00     Basic facts about STDs and their complications

11.00 – 11.30     Tea Break

11.30 – 12.30     Clinical Anatomy and Physiology of the Genitalia

12.30 – 1.30      Overview of HIV/AIDS

1.30 – 2.30       Lunch

2.30 – 3.00       Official opening and Statement by AIM district programme

3.00 – 4.00       Relationship between STDs and HIV/AIDS and other cofactors in the sexual transmission of HIV

4.00 – 4.30       STD slides demonstration and STD movie – Silent epidemic

4.30 – 5.00       Daily Evaluation

5.00               Tea Break

5.00               Facilitators meeting

#### **Day 3**

8.30 – 9.00       Review of Day 1

9.00 – 10.00      Public health importance of STIs

10.00 – 11.00     Introduction to syndromic approach to STI management

10.30 – 11.00     Tea Break

11.00 – 12.00     Management of Urethral discharge and Genital ulcers

12.00 – 1.30      Management of Vaginal discharge & Lower abdominal pain

1.30 – 2.30       Lunch

2.30 – 3.30       Management of other STI syndromes

3.30 – 4.30       Management of Congenital STI syndromes

4.30 – 5.00       Daily Evaluation

5.00               Tea

5.00               Facilitators' meeting

#### **Day 4**

8.30	Review of previous day
9.00 – 10.00	Clinical Evaluation of STI patients
10.00 – 11.00	Organisation of STD service delivery and integration of services
11.00 – 11.30	Tea break
11.30 – 1.00	STD Drugs and other commodities: Logistics management under the “Pull system”
1.00 – 2.30	Lunch
2.30 – 3.00	Other components of STI syndromic management package
3.00 – 4.00	Primary prevention of STIs and Targeted STI prevention
4.00 – 4.30	Condom use demonstration
4.30 – 5.00	Daily Evaluation
5.00	Tea
5.00	Facilitators meeting

### **Day 5**

8.30	Review of previous day
9.00 – 11.00	Counseling in STD management
11.00	Tea
11.30 – 1.30	Counseling in STD Management
1.30 -	Lunch
2.30 – 4.30	Organisation of STD training in districts: How to train - Facilitation skills on training adults
4.30 – 5.00	Daily Evaluation
5.00	Facilitators meeting
5.00	Tea

### **Day 6**

8.30	Review of previous day
9.00 – 10.00	Role of Laboratory in STD case management
10.00 – 11.00	Organising community education about STDs
11.00 – 11.30	Tea
11.30 – 12.30	STIs and Youth
12.30 – 1.00	Post test
1.00 – 2.30	Lunch
2.30 – 3.00	Action plan
3.00 – 4.00	Final course evaluation and Official closure
4.00	Departure

**Day 7** Departure continues

## Daily Course Evaluation

*Kindly fill out one form at the end of each day and hand it to one of the facilitators. This information will guide the design of future training activities.*

Date .....20....

*Please circle one of the numbers in each line*

	Very good 5	Good 4	Neutral 3	Bad 2	Very bad 1	Not applicable 0
1. Quality of teaching today:						

*Comments* .....

2. Quality of course notes for the day	5	4	3	2	1	0
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*Comments* .....

3. Content of the teaching units	5	4	3	2	1	0
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*Comments* .....

4. Time allocation to the teaching unit	5	4	3	2	1	0
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*Comments* .....

5. Fulfillment of course objectives	5	4	3	2	1	0
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*Comments* .....

6. Relevance of today's teaching units to your work.	5	4	3	2	1	0
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*Comments* .....

Overall, what were the good things about this workshop today? .....

.....

What could be improved? .....

.....

General comments .....

.....

*Thank you for completing this form today. More pages may be added, if needed.*

