National Guidelines on Prevention, Management and Control of Reproductive Tract Infections including Sexually Transmitted Infections

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Coordinated by

National Institute for Research in Reproductive Health
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Supported by

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Maternal Health Division

Ministry of Health and Family Welfare
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Preface

Reproductive tract infections (RTIs) including sexually transmitted infections (STIs) present a huge burden of disease and adversely impacts the reproductive health of people. They cause suffering for both men and women around the world, but their consequences are far more devastating and widespread among women than among men. The exact data on STI prevalence in India especially in the general population is lacking. The disease prevalence is estimated to be 6% in India and a total of 30 million people may be affected out of 340 million world over. The estimates also indicate that about 40% of women have RTI/STI at any given point of time but only 1% complete the full treatment of both partners. The emergence of HIV and identification of STIs as a co-factor have further lent a sense of urgency for formulating a programmatic response to address this important public health problem.

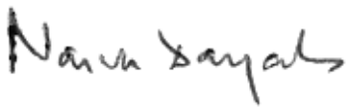
It has been prominently agreed in the 10th Plan document of the Government of India and the need has been reflected in the National Population Policy (2000) "to include STD/RTI and HIV/AIDS prevention, screening and management in maternal and child health services". In Phase-I of the National Reproductive and Child Health (RCH) program in India, STI/RTI services could not be operationalised below the district level and remain fragmented under the National AIDS Control Programme (NACP). Therefore, management of RTIs is the most needed inclusion, particularly in the rural and urban slum areas of our country in Phase II of the RCH Programme and Phase III of NACP.

The National Rural Health Mission (NRHM), launched in April, 2005, aims to provide accessible, affordable, effective, accountable and reliable health care consistent with the general principles laid down in the National and State policies. Under the umbrella of NRHM, the RCH II envisages operationalization of First Referral Units, Community Health Centres and at least 50% of 24x7 Primary Health Centres. All these facilities shall provide a range of maternal health services including skilled care at birth, essential and emergency obstetric care, safe abortion and RTI/STI prevention and management services. On the operational side, Indian Public Health Standards (IPHS) are being prescribed to achieve and maintain quality care to the community. The current guidelines under NRHM converge the needs of the two programs and bring uniformity in protocols for RTI/STI management across the country.

These guidelines are intended as a resource document for the programme managers and service providers in RCH II and NACP III and would enable the RCH service providers in organizing effective case management services through the public health system especially through the network of 24 hour PHCs and CHCs. It would also facilitate up-scaling of targeted interventions (TIs) for sex workers by programme managers and provision of quality STI management services. The guidelines have been developed keeping in mind the variability in the two programme settings and is a very good example of convergence between the RCH and NACP. It will also succeed in bringing in a focus on HIV/AIDS with uniform protocols for treatment and management of RTIs/STIs.

The Division of Maternal Health and National AIDS Control Organisation, Ministry of Health & Family Welfare in collaboration with National Institute for Research in Reproductive Health (NIRRH), Indian Council of Medical Research have prepared the technical guidelines which will help Medical

Officers, and Programme Managers to mainstream RTI/STI prevention, management, and control in the health care delivery system. I congratulate the concerned departments, NIRRH (ICMR), WHO Country Office, UNFPA, and experts who have given their valuable assistance for the development of these guidelines. I am sure that these guidelines, when implemented in word and spirit, will go a long way in correctly positioning RTI/STI management in our country.



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Acknowledgement

Reproductive tract infections including sexually transmitted infections (RTIs/STIs) are recognized as a public health problem, particularly due to their relationship with HIV infection. The prevention, control and management of RTIs/STIs is a well recognized strategy for controlling the spread of HIV/AIDS in the country as well as to reduce reproductive morbidity among sexually active population.

The convergence framework of National Rural Health Mission (NRHM) provided the directions for synergizing the strategies for prevention, control and management for RTI/STI services under Phase II of Reproductive and Child Health Programme (RCH II) and Phase III of National AIDS Control Programme (NACP III). While the RCH draws its mandate from the National Population Policy (2000) which makes a strong reference "to include STI/RTI and HIV/AIDS prevention, screening and management in maternal and child health services", the NACP includes services for management of STIs as a major programme strategy for prevention of HIV. The NACP Strategy and Implementation Plan (2006-2011) makes a strong reference to expanding access to a package of STI management services both in general population groups and for high risk behavior groups and also acknowledges that expanding access to services will entail engaging private sector in provision of services.

The highlights of the document include a comprehensive RTI/STI case management approach including detailed history taking and clinical examination; user friendly management flowcharts including syndrome-specific partner management and management of pregnant women; effective drug regimens, single oral dosages wherever possible; dealing with privacy and confidentiality issues; and partner management is given special focus. The guidelines also emphasize on counseling for safe sex, condom promotion, dual protection options and integration of RTIs/STIs assessment into family planning services. Special population segments like neonates, adolescents and high risk groups are addressed separately.

The vision and constant encouragement provided by Shri Prasanna Hota, former Secretary, Ministry of Health and Family Welfare enabled us to bring out these guidelines. We also express our sincere thanks to Shri Naresh Dayal, Secretary, Health and Family Welfare under whose leadership these guidelines have been finalized.

A number of organizations, individuals and professional bodies have contributed towards the development of these guidelines. National Institute of Research in Reproductive Health (NIRRH), Mumbai under ICMR led the process of country wide rapid assessment survey and coordinated the development of the technical guidelines. We express our sincere appreciation to Dr Chander Puri, Director and Dr Sanjay Chauhan, Deputy Director of NIRRH who provided the support in the development of these guidelines. We would also like to thank the members of the operational, clinical and laboratory working and advisory groups constituted at the NIRRH and NACO for providing their expertise, experience and guidance in outlining the guidelines.

These guidelines have been prepared and designed with technical assistance and other related support provided by WHO, UNFPA, FHI and other experts in the field. Special thanks are due to Dr Arvind Mathur, Coordinator, Family & Community Health, WHO, India for providing continued

support and contributing technically to bring the guidelines to the current shape. We are particularly thankful to Dr Dinesh Agarwal, Technical Advisor, Reproductive Health, UNFPA India office, Dr H. K. Kar, Professor and Head, Department of Dermatology & STD, RML Hospital, Dr. N. Usman, Professor of Dermatology and STD, Chennai for their constant technical inputs, unstinted support and guidance through out the process of developing these guidelines.

We would like to express our sincere appreciation for the encouragement and guidance provided by Shri S. S. Brar, Joint Secretary (RCH), Dr. I. P. Kaur, Deputy Commissioner, Maternal Health and Dr. Jotna Sokhey, Additional Project Director, NACO. We also appreciate the guidance provided by Dr. V. K. Manchanda, the erstwhile Deputy Commissioner, Maternal and Child Health during the preparation of this document. The hard work and contributions of Dr. Ajay Khera, Joint Director, NACO, Dr. Himanshu Bhushan and Dr. Manisha Malhotra, Assistant Commissioners, Maternal Health Division have been invaluable in shaping the document. We also appreciate the excellent contributions of Dr. Vinod Khurana, Consultant, NACO in finalizing the guidelines.

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List of Abbreviations

AIDS	Acquired Immunodeficiency Syndrome
ANC	Anti Natal Care
ART	Anti Retroviral Therapy
ANMs	Auxiallary Nurse Midwives
BV	Bacterial Vaginosis
CA	Candidiasis, yeast infection
CHCs	Community Health Centres
CMV	Cyto Megalo Virus
CDC	Centre for Disease Control
EC	Emergency Contraception
ESR	Erythrocyte Sedimentation Rate
ELISA	Enzyme Linked Immuno Sorbent Assay
Endo	Endogenous
FPFHI	Family PlanningFamily Health International
FTA-Abs	Fluorescent Treponema Antibody Absorption Test
GUD	Genital Ulcer Disease
HBV	Hepatitis B Virus
HIV	Human Immunodeficiency Virus
HPV	Human Papilloma Virus
HSV	Herpes Simplex Virus
Iatro	Iatrogenic
IPHS	Indian Public Health Standards
ICTC	Integrated Counselling and Testing Centre
IDUs	Intravenous Drug Users
IM	Intramuscular
IU	International Units
IUD	Intra Uterine Device
IVKOH	IntravenousPotassium Hydroxide
LGV	Lympho Granuloma Venereum
LHV	Lady Health Visitor
MOHFW	Ministry of Health and Family Welfare
MSMs	Men having Sex with Men
MCH	Maternal and Child Health

MHA-TP	MicroHaemagglutination Assay for antibodies to Treponema Pallidum
MTCT	Mother-To-Child Transmission
MVA	Manual Vacuum Aspiration
NACP	National AIDS Control Program
NRHM	National Rural Health Mission
NPCP-III	National AIDS Control Program-Phase III
NIRRH	National Institute for Research in Reproductive Health
NACO	National AIDS Control Organization
NGO	Non Governmental Organization
NGU	Non Gonococcal Urethritis
PHC	Primary Health Centre
PLHAs	Persons Living with HIV/AIDS
PAP Test	Papanicolaou Test
PPTCT	Prevention of Parent-To-Child Transmission of HIV
PSI	Population Services International
PCR	Polymerase Chain Reaction
PEP	Post Exposure Prophylaxis
PID	Pelvic Inflammatory Disease
ROM	Rupture Of Membrane
RPR	Rapid Plasma Reagin
RTI	Reproductive Tract Infection(s)
RCH	Reproductive and Child Health Program
RCH-II	Reproductive and Child Health Program-Phase II
STI	Sexually Transmitted Infection
STD	Sexually Transmitted Disease
SACS	State Aids Control Society
TPHATI	Treponema Pallidum Haemagglutination Test Target Intervention
TV	Trichomonas Vaginalis
UTI	Urinary Tract Infection
UNFPAVCT	United Nations Population Funds Voluntary Counseling and Testing
VDRL	Venereal Disease Research Laboratory
WBC	White Blood Cells
WHO	World Health Organization

1. Introduction

Sexually transmitted infections (STIs) present a huge burden of disease and adversely impact reproductive health of people. As per recent STI prevalence study (2003), over 5 percent of adult population in the country suffers from STIs and most regions of country show relatively high levels. It is well known that risk of acquiring HIV infection increases manifold in people with current or prior STI. STIs are linked to HIV transmission as common sexual behaviour put persons at the risk of infection which directly increases the chances of acquiring and transmitting HIV. The emergence of HIV and identification of STIs as a co-factor have further lent a sense of urgency for formulating a programmatic response to address this important public health problem. HIV prevalence rates among STIs Clients also remains high: 22.8 percent in Andhra Pradesh, 15.2 percent in Maharashtra, 12.2 percent in Manipur and 7.4 percent in Delhi.

Besides HIV infections, RTIs including STIs cause suffering for both men and women around the world, but their consequences are far more devastating and widespread among women than among men. These infections often go undiagnosed and untreated, and when left untreated, they lead to complications such as infertility; ectopic pregnancy and cervical cancer. Pelvic inflammatory disease arising from STIs poses a major public health problem and adversely affects the reproductive health of poor and untreated women. Presence of STIs also compromises with contraceptive acceptance and continuation. Similarly some of the RTIs are associated with poor pregnancy outcome and high morbidities and mortalities in neonates and infants.

In developing countries, both the incidence and prevalence of RTIs/STIs are very high, they rank second as the cause of healthy life lost among women of reproductive age group, after maternal morbidity and mortality. In men, sexually transmitted infections combined with HIV infection account for nearly 15 percent of all healthy life lost in the same age group. These infections pose a significant potential drain on public health system resources and contribute substantially to the patterns of major health care expenditure at the household level.

Programmatic response to address prevention, management and control of RTIs/STIs largely falls under the National Reproductive and Child Health (RCH II) Programme, which was launched in year 2005. The programme draws its mandate from the National Population Policy (2000), which makes a strong reference "to include STD/RTI and HIV/AIDS prevention, screening and management in maternal and child health services". National Rural Health Mission (NRHM) was launched in April, 2005 with an aim to provide accessible, affordable, effective, accountable and reliable health care consistent with the outcomes envisioned in the Millennium Development Goals and general principles laid down in the National and State policies, including the National Population Policy, 2000 and the National Health Policy, 2002. On the operational side, Indian Public Health Standards (IPHS) are being prescribed to achieve and maintain quality of care to the community through public health care delivery system. Clearly there is renewed emphasis on making public health systems effective to deliver quality services to achieve programme goals.

The National AIDS Control Programme 3 (NACP III) includes services for management of STIs as a major programme strategy for prevention of HIV. The Strategy and Implementation Plan (2006-2011) makes a strong reference to expanding access to package of STI management services both in

Introduction

general population groups and for high risk behavior groups. Programme also acknowledges that expanding access to services will entail engaging private sector in provision of services. Several studies indicate preference of Clients to access services from private providers. It is also important that treatment facilities in both public and private sector are linked to targeted interventions being supported for high risk behavior groups in the NACP III.

This document is guided by the National Programme Implementation Plan for RCH II and NACP III. The RCH II programme is to be implemented within the framework of inter-sectoral convergence as envisaged in the implementation framework of NRHM. Linkages are to be established between the RCH II strategy for prevention and management of RTIs including STIs and prevention strategy as articulated in NACP III. The inputs required for framing these guidelines are drawn from many sources which also include a multi centric countrywide Rapid Assessment Survey in six zones of the country to assess their management practices (operational, clinical, laboratory) on RTI/STIs at different levels (District, CHC, PHC and Subcentre) of the health system, review of available guidelines, technical discussions with STI care practitioners, and programme managers in public systems as well as from NGO and private sector.

The guidelines presented in this document are designed for qualified Doctors to enable them to quickly and confidently diagnose and treat the majority of the RTIs/STIs caseload. Some part of these guidelines could be extracted and adopted for nursing personnel as per requirements for service delivery in different settings. The main purpose of this document is to present comprehensive RTI/STI case management guidelines including detailed history taking and clinical examination supported by a number of photographs of RTIs/STIs in men and women to provide a visual impression; user friendly management flowcharts including partner management and management of pregnant women; effective drug regimens, single oral dosages wherever possible, with special instructions incorporated in the flowcharts itself. This document also provides guidance to service providers to address RTIs/STIs among special population groups such as adolescents, sex workers and men having sex with men; and simple laboratory tests which can be done at various facility levels with relevant photographs and details of procedures. In addition to this, the document also provides information on organisation of integrated counseling and testing services.

These guidelines cater to information needs of the programme managers and service providers in RCH II and also in NACP III. The RCH service providers will find the information useful in organizing effective case management services through public health system especially through network of 24 hour PHCs and CHCs. Similarly programme managers specially State AIDS Control Society officers entrusted with the responsibility of up scaling targeted interventions (TIs) for sex workers and TI managers will find useful information for provision of quality STI management services.

Recognizing the fact that a significantly high proportion of these clients are being treated through private sectors, the private providers/ NGO service providers are highly encouraged to use these national protocols.

2. Clinical Spectrum of RTIs/STIs

Clients suspected of having RTIs/STIs usually present with one or more of the following complaints:

(i) Vaginal or urethral discharge;

(ii) Vesicular and/or non-vesicular genital ulcers;

(iii) Inguinal bubo;

(iv) Lower abdominal and/or scrotal pain; and

(v) Genital skin conditions.

The following table depicts presenting symptoms, signs, clinical conditions, and causative organisms.

Table 2.1: Causative organisms and presenting symptoms & signs of specific RTIs/STIs

RTI/STI	Causative Organism	Symptoms/Signs
Presenting symptoms: Vaginal/Urethral Discharge and or burning micturition		
Gonorrhea	Neisseria gonorrhea	Women • Purulent (containing mucopus) vaginal discharge • Pain or burning on passing urine (dysuria) • Inflamed (red and tender) urethral opening Men • Pain or burning on passing urine (dysuria) • Purulent (containing mucopus) urethral discharge (drip). • Infection of the epididymis (coiled tube leading from the testis to the vas deferens) • Urethral abscess or narrowing (stricture)
Trichomoniasis	Trichomonas vaginalis	• May produce few symptoms in either sex • Women often will have a frothy (bubbly), foul-smelling, greenish vaginal discharge • Men may have a urethral discharge
Chlamydia	Chlamydia trachomatis	*Women* • Produces few symptoms, even with upper genital tract infection (silent PID) • Purulent cervical discharge, frequently a "beefy" red cervix which is friable (bleeds easily)

Clinical Spectrum of RTIs/STIs

RTI/STI	Causative Organism	Symptoms/Signs
		Men • Most frequent cause of non-gonococcal urethritis (NGU)
Bacterial vaginosis	Overgrowth of anaerobes (e.g.,Gardnerella vaginalis)	• Not necessarily sexually transmitted • Vaginal discharge with fishy odor, grayish in color
Candidiasis	Candida albicans	*Women* • Curd-like vaginal discharge, whitish in color • Moderate to intense vaginal or vulval itching (pruritus) *Men* • Itchy penile irritation (balanitis)
Presenting symptoms: Genital Ulcers and Buboes		
Chancroid (Soft chancre)	Haemophilus ducreyi	• Painful, "dirty" ulcers located anywhere on the external genitalia. • Development of painful enlarged lymph nodes (bubo) in the groin.
Syphilis	Treponema pallidum	• Occurs in 3 stages: primary and secondary and late Primary syphilis • Initially, painless ulcer (chancre): in women on the external genitalia (labia), in men on the penis; in both sexes oral and anal ulcers and enlarged rubbery lymph nodes Secondary (disseminated) syphilis • Several months' later non-itchy body rash, headaches, muscle aches, weight loss, low-grade fever. The rashes may disappear spontaneouslyLate syphilis • Develops in about 25% of untreated cases and is often fatal due to involvement of the heart, great blood vessels and brain
Lymphogranuloma venereum (LGV)	Chlamydia trachomatis (serovars L1, L2, L3)	• Small, usually painless papules (like pimples) on the penis or vulva, followed by

Clinical Spectrum of RTIs/STIs

RTI/STI	Causative Organism	Symptoms/Signs
		• Buboes in the groin which ultimately breaks down forming multiple fistulae (draining openings) • If untreated, the lymphatic system may become blocked, producing elephantiasis (swelling of the genitals or extremities)
Granuloma inguinale (Donovanosis)	Calymmatobacterium granulomatis	• An uncommon cause of ulcerative genital tract infection • Typically, the infected person develops lumps under the skin which break down to form "beefy" red, painless ulcers
Genital herpes	Herpes simplex virus	• Multiple painful vesicles later forming shallow ulcers which clear in 2 to 4 weeks (first attack) and may be accompanied by watery vaginal discharge in women • Recurrent (multiple episodes) more than 50% of the time.
Presenting symptoms: Lower Abdominal Pain		
Pelvic Inflammatory Disease (PID)	• Neisseria gonorrhea • Chlamydia trachomatis • Anaerobes	• Lower abdominal pain, fever, vaginal discharge,menstrual irregularities like heavy irregular vaginal bleeding, dysmenorrhoea, dyspareunia (pain during sexual intercourse), dysuria, tenesmus, low backache • Temperature> 39^0C • Vaginal/cervical discharge, congestion or ulcers • Lower abdominal tenderness or guarding • Uterine/adnexal tenderness, cervical movement tenderness, presence of a pelvic mass
Presenting symptoms: Acute scrotal pain and /or swollen scrotum		
Epididymitis/ Orchitis	• Neisseria gonorrhea • Chlamydia trachomatis	• Acute: severe pain in one or both testes, sudden swelling of the testes.

Clinical Spectrum of RTIs/STIs

RTI/STI	Causative Organism	Symptoms/Signs
Presenting symptoms: Genital Skin Conditions		
Genital warts (Condyloma acuminata)	Human papilloma virus	• Single or multiple soft, painless, "cauliflower" growth which appear around the anus, vulvo- vaginal area, penis, urethra and perineum
Moluscum contagiosum	Pox virus	• Multiple, smooth, glistening, globular papules of varying size from a pinhead to a split pea can appear anywhere on the body. Sexually transmitted lesions on or around genitals can be seen. • Not painful except when secondary infection sets in.
Pediculosis pubis	Pthirus pubis	• There may be small red papules with a tiny central clot caused by lice irritation. • General or local urticaria with skin thickening may or may not be present.
Scabies	Sarcoptes scabiei	• Severe pruritis (itching) is experienced by the client which becomes worse at night. • The burrow is the diagnostic sign. It can be seen as a slightly elevated grayish dotted line in the skin, best seen in the soft part of the skin.

3. Objectives of RTI/STI Case Management Services

Provision of quality RTI/STI case management services through a network of public health care delivery institutions, private sector providers, franchisee clinics and in targeted intervention settings will result in achieving following objectives:

1. Enhance access to services; especially for women and adolescents who are constrained to seek services and face several access related barriers.

2. Standardized treatment protocols will improve prescription practices by reducing poly pharmacy, irrational drug combinations.

3. Focus on prevention, with special reference to partner management, condom use, follow-ups and management of side effects.

4. Emphasis on treatment compliance and better treatment outcomes.

5. Behaviour change communication leading to improved knowledge on causation, transmission and prevention of RTIs/STIs.

6. Ensure that providers offer counseling and testing services for HIV/AIDS and establish linkages with ART systems with respect to persons detected positives.

7. Screen asymptomatic women especially contraceptive users and antenatal clients for STIs.

8. Ensure service provision for groups practicing high risk behaviors such as sex workers, MSMs and IDUs.

4. Case Management

The most important elements of RTI/STI case management are accurate diagnosis and effective treatment. This needs time and skill in taking a detailed sexual history for both client and his/her sexual contacts and in carrying out a comprehensive physical examination and minimal investigations in resource poor settings. In some settings where even minimal laboratory setup and facilities for clinical examinations are not available, syndromic management is recommended as per the protocols in following pages. To prevent the complications and spread, treatment must be effective. This means selecting the correct drugs for the disease, carefully monitoring its administration and carrying out regular follow up. The sexual partners must be treated so as to prevent recurrence. Clients should also receive counseling services with special reference to risk reduction, safer sex behaviour and access to testing.

The components of case management include:

- History taking
- Clinical examination
- Correct diagnosis
- Early and effective treatment
- Counseling: Risk reduction and voluntary HIV testing
- Provision of condoms
- Partner management
- Follow-up as appropriate.

Thus, quality case management consists not only of antimicrobial therapy to obtain cure and reduce infectivity, but also focus on prevention of recurrence and partner management.

History taking

- History must be taken in a language, which the client understands well. (Some examples of framed questions are given in Box 1). Clients are often reluctant to talk about these conditions due to shyness or fear of stigmatization. Hence health care providers should ensure privacy, confidentiality, be sympathetic, understanding, non-judgmental and culturally sensitive.
- Ensure privacy by having a separate room for history taking and examination, which is not stigmatized with a nameplate for STIs. There should be auditory as well as visual privacy for history taking as well as examination.

Case Management

- Start the conversation by welcoming your client, taking them into confidence and encouraging him/her to talk about their complaints. If a couple comes together, each of them needs to be interviewed and examined separately.

- Often, because the client feels uncomfortable talking about RTIs/STIs, individuals may come to the clinic with other non-specific complaints or requesting a check-up, assuming that the health care provider will notice anything abnormal that needs treatment. Therefore, health care workers should maintain a high index of suspicion about RTIs/STIs.

- Clients seeking antenatal care and family planning services should be viewed as opportunities to provide general information about RTIs/STIs and should be asked about RTI/STI symptoms and contraception.

- The health care personnel should be aware of the commonly used RTI/STI related terminology as well as those used for high-risk behavior. These terms may vary in different geographical settings.

Clinical examination

Pre-requisites for clinical examination

- Clients should be examined in the same conditions of privacy as those in which history was taken.

- It is advisable to have an assistant of the same sex as the client present, during examination of clients of sex opposite to the doctors.

- Clients should be told about the examination with the help of diagrams and charts.

- The examination should be done in a well-lit room while providing adequate comfort and privacy. Before you start, keep the examination table with proper illumination ready as well as sterilized speculums (for examination of female clients), collection swabs and labeled slides for smears.

- As far as possible, complete body examination of the client should be carried out so that none of the skin lesions or lymph nodes is missed.

Box 4.1: Sample questions on history taking

Framing Statement

"In order to provide the best care for you today and to understand your risk for certain infections, it is necessary for us to talk about your sexual behavior.

"Screening Questions

- Have you recently developed any of these symptoms?

STI (Genital infections) Symptoms Checklist

For Men

i. Discharge or pus (drip) from the penis
ii. Urinary burning or frequency
iii. Genital sores (ulcers) or rash or itching
iv. Scrotal swelling
v. Swelling in the groin
vi. Infertility

For Women

i. Abnormal vaginal discharge (increased amount, abnormal odor, abnormal color)
ii. Genital sores (ulcers), rash or Itching
iii. Urinary burning or frequency
iv. Pain in lower abdomen
v. Dysmenorrhoea, menorrhagia, irregular menstrual cycles?
vi. Infertility

High risk sexual behavior

- For all adolescents: Have you begun having any kind of sex yet?
- If sexually active do you use condom consistently?
- Do you have any reason to think you might have a sexually transmitted disease? If so, what reason?
- Have you had sex with any man, woman, with a gay or a bisexual?
- Have you or your partner had sex with more than one partner?
- Has your sex partner(s) had any genital infections? If so, which ones?
- Do you indulge in high risk sexual activity like anal sex
- Do you practice correct and consistent condom usage while having sex? If yes, whether every time or sometimes?
- Sex workers: Frequency of partner change: use of condoms with regular partners and also with clients

STI History

- In the past have you ever had any genital infections, which could have been sexually transmitted? If so, can you describe?

STI treatment history

- Have you been treated in the past for any genital symptoms? By whom? (qualified or unqualified person)
- Did your partner receive treatment for the same at that time?
- Has your partner been treated in the past for any genital symptoms? By whom? (qualified or unqualified person)

Injection Drug Use

- Have you had substance abuse? (If yes, have you ever shared needles or injection equipment?)
- Have you ever had sex with anyone who had ever indulged in any form of substance abuse?

Menstrual and obstetric history in women and contraceptive history in both sexes should be asked

Case Management

General Examination

- All examinations should begin with a general assessment, including vital signs and inspection of the skin and mucous patches, to detect signs of systemic disease.

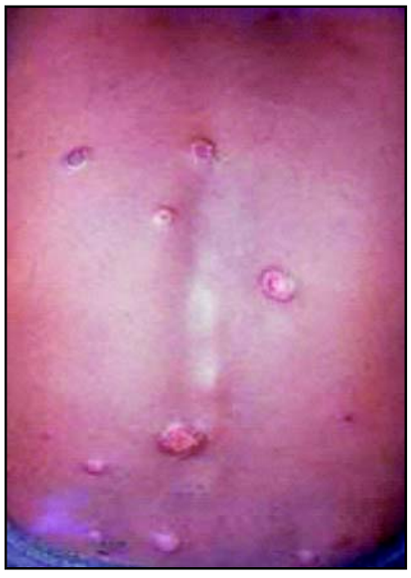


Fig 4a Lesions of Secondary Syphilis

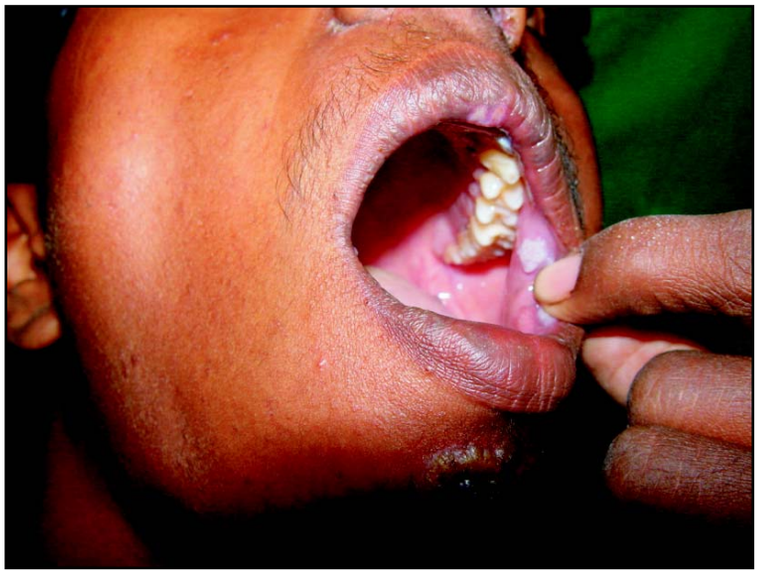


Fig 4b Mucous patches in Secondary Syphilis

Clinical examination of female clients

While examining a female client, a male doctor should ensure that a female attendant is present. Genital examination in females must be performed with client in lithotomy position.

Box 4.2 Signs to look for during external genital examination of a female client

a) Inspection

Staining of underclothes: Vaginal and urethral discharge, exudative ulcers

Inguinal region

- Swelling, ulcer, lesions of fungal infections
- Lymph nodes: look for enlargement, number, location (horizontal or vertical group), single or multiple, scars and puckering, signs of inflammation on the surface and surrounding region
- Abrasions due to scratching and lesions on inner aspect of thighs

Pubic area

- Matting of hairs, pediculosis, folliculitis, or other skin lesions

Labia majora and minora

- Separate the labia majora with both hands and look for erythema, edema, esthiomene formation (lobulated fibrosed masses due to chronic lymphedema), fissuring, ulcers, warts or other skin lesions

Ulcers

- Location, number (single, multiple), superficial (erosions) or deep, edge (undermined/ punched out), margins (regular/irregular) and floor (presence of exudates, slough/ granulation tissue)

Bartholin glands

- Enlargement, ductal opening, discharge

Introitus

- Discharge – colour, odour, profuse or scanty, curdy or thin, back drop of redness and inflammation

Urethral meatus

- Discharge (pressing under the urethra with one finger may show drops of discharge), inflammation

Perianal examination

- Separate the buttocks with two hands for better visualization. Look for ulcer, macerated papules of condyloma lata, warts, discharge, patulous anus, haemorrhoids, fissures, fistula

b) PalpationInguinal region

- Lymphnodes: tenderness, increased warmth, superficial or deep, discrete or matted, free mobility or fixed to deeper structures, consistency (firm or soft) and fluctuant.
- Rule out hernia

Palpation of ulcer at any site

- Tenderness, induration of the floor and edges, bleeding on maneuvering

Signs of various RTIs/STIs are shown as pictures in fig 4c – 4h. During external genital examination of female clients, one should look for these signs.

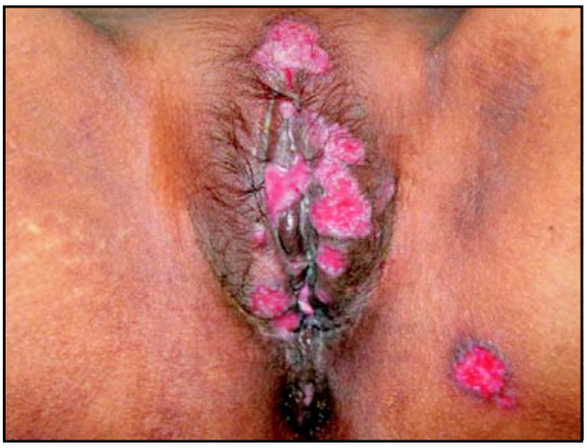


Fig 4c Vesicles of Genital Herpes

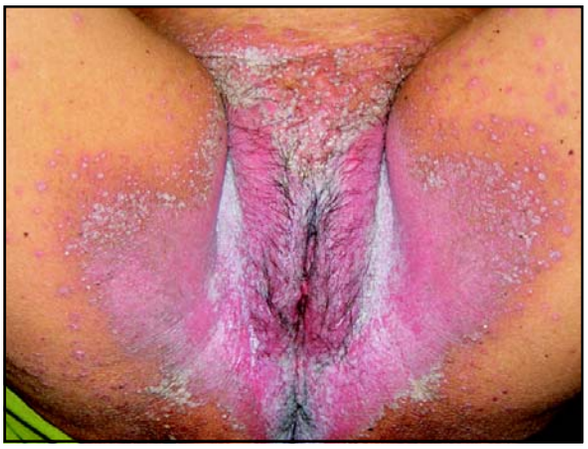


Fig 4d Abrasions of Intertrigo

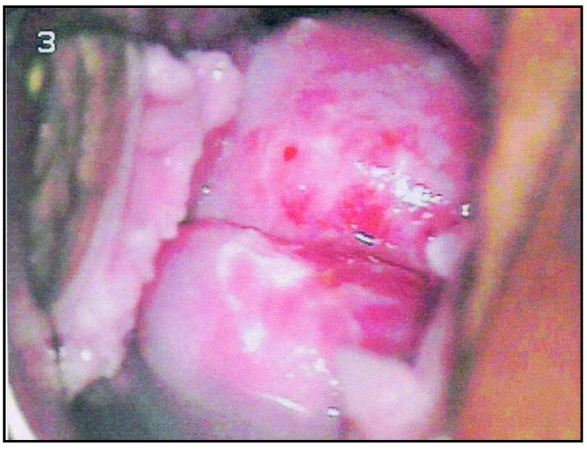


Fig 4e Extensive mucopurulent cervicitis infection

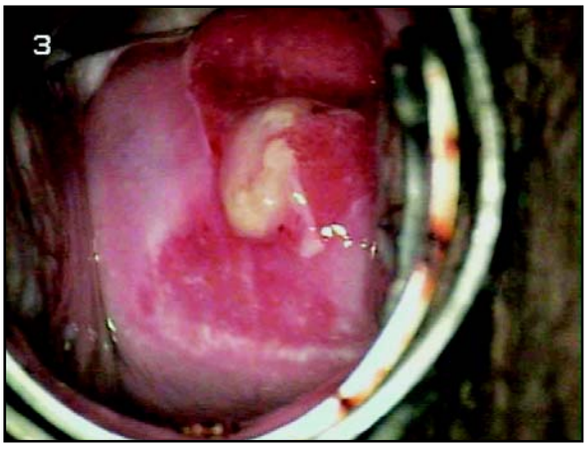


Fig 4f Pus pouring out of endocervix in Chlamydia infection

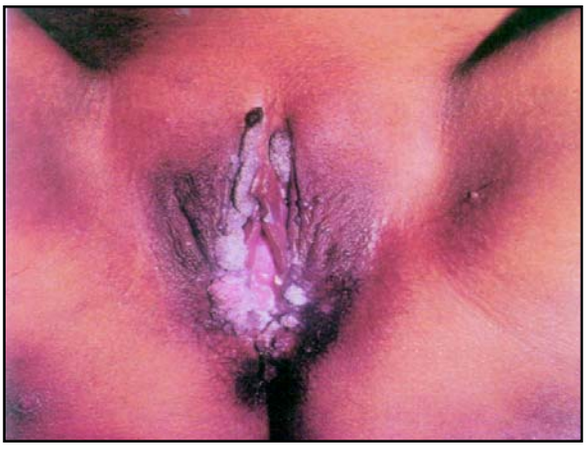


Fig 4g Growth of genital warts

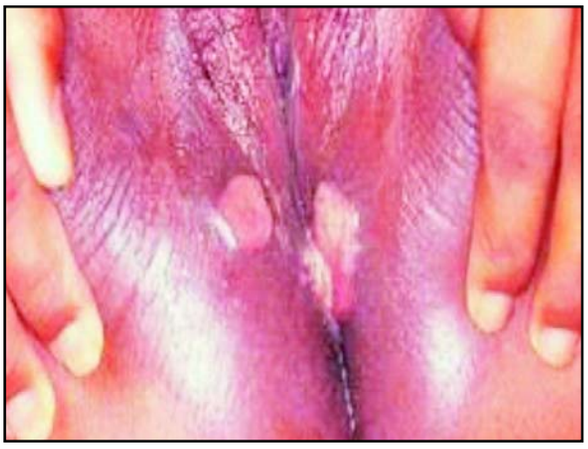


Fig 4h Chancre of Syphilis

Box 4.3: Speculum examination in women

How to do speculum examination in women

- Ask the woman to pass urine.
- Ask her to loosen her clothing. Use a sheet or clothing to cover her.
- Have her lie on her back, with her heels close to her bottom and her knees up.
- Wash your hands well with clean water and soap.
- Put clean gloves on both hands.
- Look at the outside genitals – using the gloved hand to gently look for lumps, swelling, unusual discharge, sores, tears and scars around the genitals and in between the skin folds of the vulva.

Speculum examination

- Be sure the speculum has been properly disinfected before you use it. Wet the speculum with clean water before inserting it.
- Put the first finger of your gloved hand in the woman's vagina. As you put your finger in, push gently downward on the muscle surrounding the vagina (push slowly, waiting for the woman to relax her muscles).
- With the other hand, hold the speculum blades together between the pointing finger and the middle finger. Turn the blades sideways and slip them into the vagina. (be careful not to press on the urethra or clitoris because these area are very sensitive). When the speculum is halfway in, turn it so the handle is down. Remove your gloved finger.
- Gently open the blades a little and look for the cervix. Move the speculum slowly and gently until you can see the cervix between the blades. Tighten the screw on the speculum so it will stay in place.
- Check the cervix which should look pink and round and smooth. Notice if the opening is open or closed, and whether there is any discharge or bleeding. If you are examining the woman because she is bleeding from the vagina after birth, abortion or miscarriage, look for tissue coming from the opening of the cervix.
- Look for signs of cervical infection by checking for yellowish discharge, redness with swelling, or easy bleeding when the cervix is touched with a swab. If the woman has been leaking urine or stools gently turn the speculum to look at the walls of the vagina. Bring the blades closer together to do this.
- To remove the speculum, gently pull it toward you until the blades are clear of the cervix. Then bring the blades together and gently pull back. Be sure to disinfect your speculum again.

Box 4.4: Signs to look for during speculum examination

- Vaginal discharge and redness of the vaginal walls are common signs of vaginitis. Note the color, smell and characteristics of any vaginal discharge. When the discharge is white and curd-like, candidiasis is likely.
- Foreign body, IUD thread.
- Ulcers, warts, sores or blisters.
- Redness of cervical and vaginal epithelium
- Look for cervical erosions. If the cervix bleeds easily when touched or the discharge appears muco-purulent with discoloration, cervical infection is likely. A strawberry appearance of the cervix may be due to trichomoniasis. A uniform bluish discoloration of the cervix may indicate pregnancy, which needs to be kept in mind.
- When examining a woman after childbirth, induced abortion or miscarriage, look for bleeding from the vagina or tissues fragments and check whether the cervix is normal.
- Tumors or other abnormal-looking tissue on the cervix.
- PAP smear can be obtained during speculum examination

Box 4.5: Bimanual pelvic examination

How to do a bimanual pelvic examination

- Put the pointing finger of your gloved hand in the woman's vagina. As you put your finger in, push gently downward on the muscles surrounding the vagina. When the woman's body relaxes, put the middle finger in too. Turn the palm of your hand up.
- Feel the opening of her womb (cervix) to see if it is firm (feels like tip of the nose and round. Then put one finger on either side of the cervix and move the cervix gently. It should move easily without causing pain. If it does cause pain, she may have infection of the womb, tubes or ovaries. If her cervix feels soft, she may be pregnant.
- Feel the womb by gently pushing on her lower abdomen with your outside hand. This moves the inside parts (womb, tubes and ovaries) closer to your inside hand. The womb may be tipped forward or backward. If you do not feel it in front of the cervix, gently lift the cervix and feel around it for the body of the womb. If you feel it under the cervix, it is pointed back.
- When you find the womb, feel for its size and shape. Do this by moving your inside fingers to the sides of the cervix, and then 'walk' your outside fingers around the womb. It should feel firm, smooth and smaller than a lemon. If the womb:
- Feels soft and large, she is probably pregnant.
- Feels lumpy and hard, she may have a fibroid or other growth.
- Hurts when you touch it, she may have an infection inside.
- Does not move freely, she could have scars from an old infection.
- Feel her tubes and ovaries. If these are normal, they will not be felt. But if you feel any lumps that are bigger than an almond or that cause severe pain, she could have an infection or other emergency. If she has a painful lump, and her monthly bleeding is late, or scanty, she could be pregnant in the tube. She needs medical help right away.
- Move your finger and feel along with inside of the vagina. If she has a problem with leaking urine or stool, check for a tear. Make sure there are no unusual lumps or sores.
- Have the woman cough or push down as if she were passing stool. Watch to see if something bulges out of the vagina. If it does, she could have a fallen womb or fallen bladder (prolapse).
- When you are finished, clean and disinfect your glove. Wash your hands well with soap and water.

Box 4.6: Signs to look for during a bimanual examination

- Soft enlarged uterus with missed periods suggestive of pregnant uterus
- Adnexal mass with missed periods suggestive of ectopic pregnancy
- Cervical movement tenderness and or adnexal tenderness suggestive of PID
- Adnexal mass with fever suggestive of pelvic abscess
- Any other hard pelvic mass like fibroid or malignancy

Digital rectal examination: Performed if symptoms suggestive of prostatic disease. Should not be carried out if the client has painful perianal diseases such as herpetic ulcers, fissures, haemorrhoids.

Proctoscopic examination: Indicated if history of unprotected anal intercourse, or complain of rectal discharge.

Note: If a woman has missed periods (menses), pregnancy should be ruled out by doing a urine pregnancy test.

Box 4.7: Signs to look for when examining men

a) Inspection

Staining of underclothes: due to urethral discharge, subprepucial discharge or from exudative ulcers.

Inguinal region: swelling, ulcer, candidial intertrigo, tinea, enlarged lymph nodes: look for number, location (horizontal or vertical group), single or multiple pointings, scars and puckering, signs of inflammation on the surface and surrounding region

Pubic area: matting of hairs, pediculosis, folliculitis, or other skin lesions.

Scrotum: erythema, skin lesions (condyloma lata), asymmetry, scrotal swelling.

Penis: Size, oedema, deformity, phimosis, paraphimosis, autoamputation of genitals, foreign bodies, old scars, circumcision, retraction of prepuce.

Inspection of ulcers: Number (single, multiple), superficial (erosions) or deep, edge (undermine/ punched out), margins (regular/irregular) and floor (presence of exudates, slough/granulation tissue).

Meatal examination: Erythema, discharge: thick, creamy or mucopurulent, wart, ulcer. If no discharge then milk the penis (urethra) and look for discharge at the meatus.

Prepucial skin examination: Erosions, ulcer, warts, posthitis or other skin lesions.

Coronal sulcus: Ulcer, warts, pearly penile papules.

Glans penis examination: Erosions, ulcers, warts, balanitis (candidial, trichomonial).

Shaft of penis: papules, nodules, ulcers or other skin lesions, fibrosis.

Perianal examination: Separate the buttocks with two hands for better visualization. Look for ulcer, macerated papules of condyloma lata, warts, discharge, patulous anus, haemorrhoids, fissures, fistula.

b) PalpationInguinal region: Lymphnodes: tender or not, increased warmth, superficial or deep, discrete or matted, free mobility or fixed to deeper structures, consistency: firm or soft and fluctuant. Rule out hernia.

Palpation of spermatic cords: Tenderness, asymmetry, and thickening, varicocoeles.

Palpation of scrotum: Asymmetry, tenderness, consistency of testes and epididymis, transillumination for hydrocoele. Rule out hernia.

Palpation of ulcer at any site: Tenderness, induration of the floor and edges, bleeding on maneuvering.

c) Digital rectal examination Performed if symptoms suggestive of prostatic disease. Should not be carried out if the client has painful perianal disease such as herpetic ulcers, fissures, or haemorrhoids.

d) Proctoscopic examination Indicated if unprotected anal intercourse, rectal discharge.

Signs of various RTIs/STIs are shown as pictures in fig . During external genital examination of male clients, one should look for this signs.

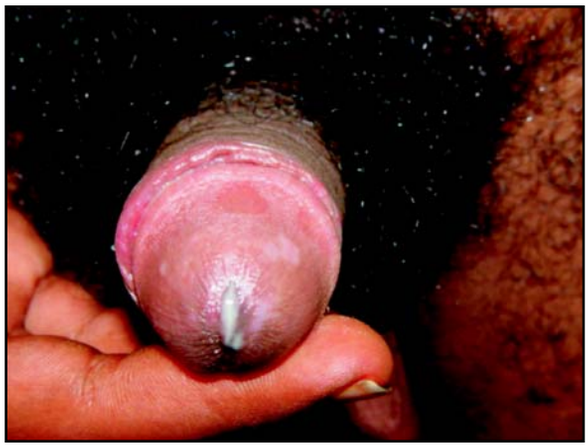


Fig 4i Uretheral discharge in gonorrhea

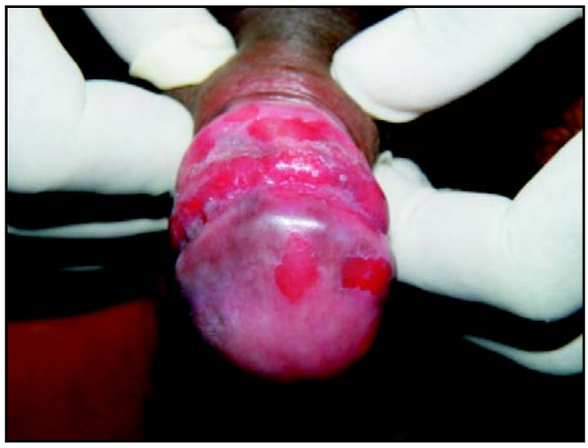


Fig 4j Herpes ulcers

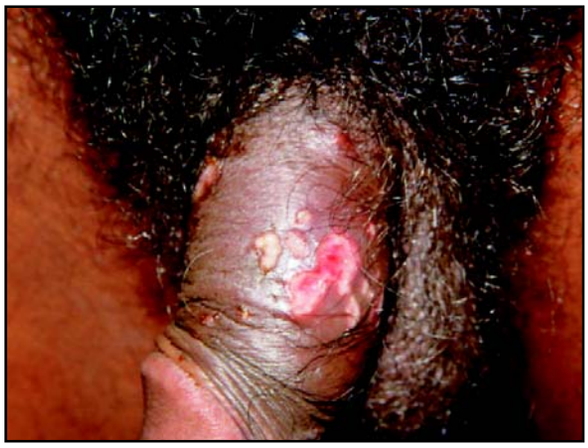


Fig 4k Multiple grouped erosions over shaft of penis

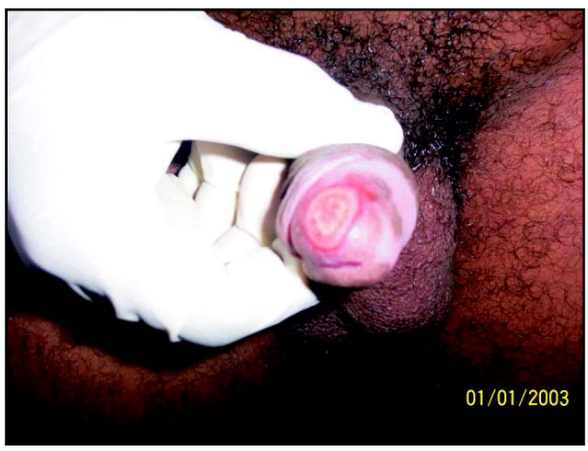


Fig 4l Chancre of glans in Syphilis

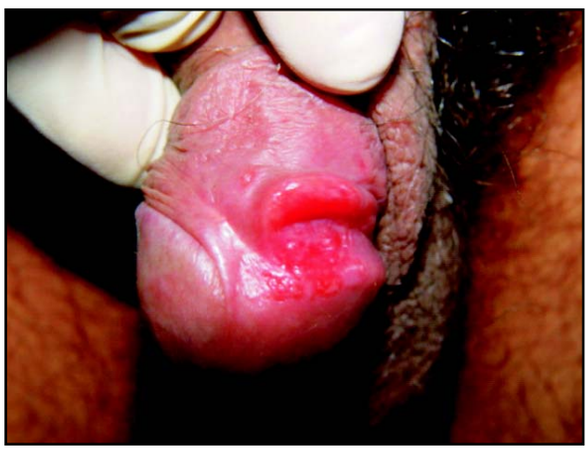


Fig 4m Chancre of coronal sulcus in Syphilis

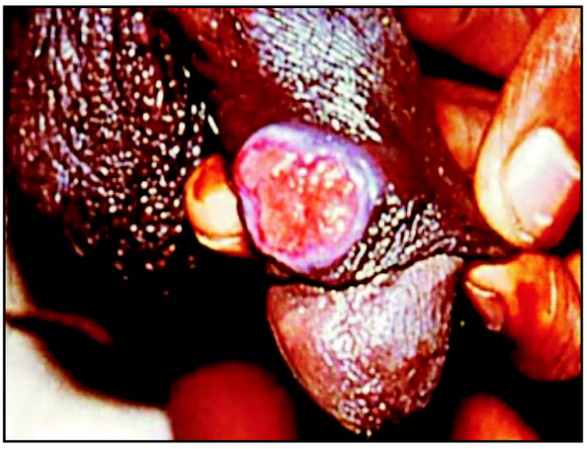


Fig 4n Ulcer of Donovanosis

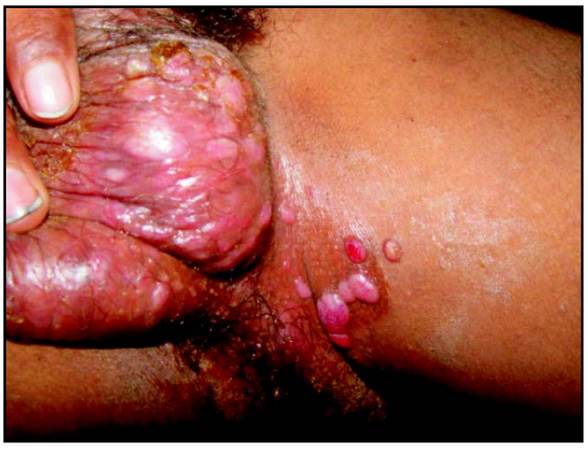


Fig 4o Condyloma lata of Syphilis

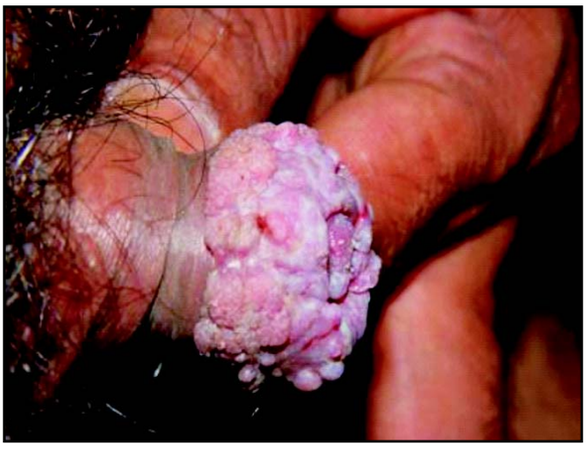


Fig 4p Veneral warts

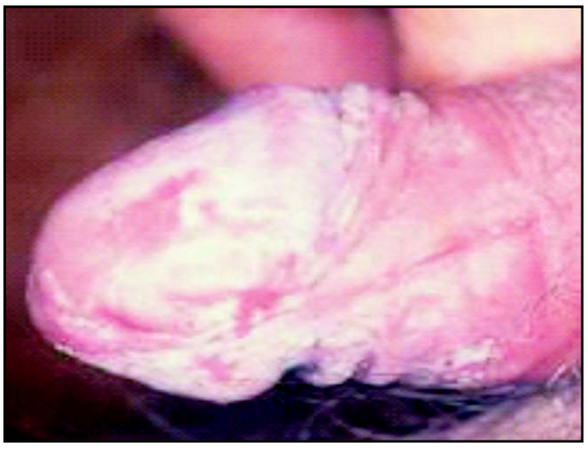


Fig 4q Candidial balanoposthitis

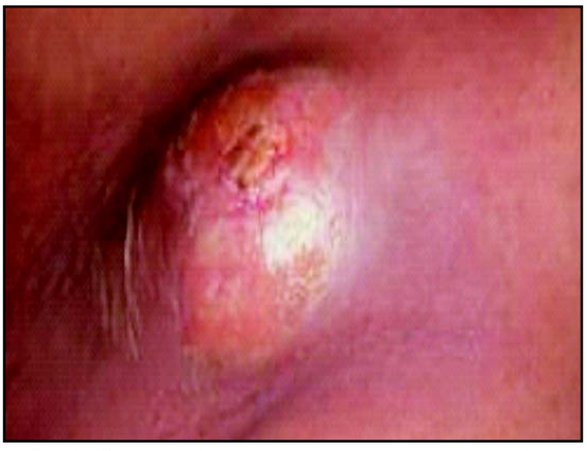


Fig 4r Chancroidal bubo: note the single pointing

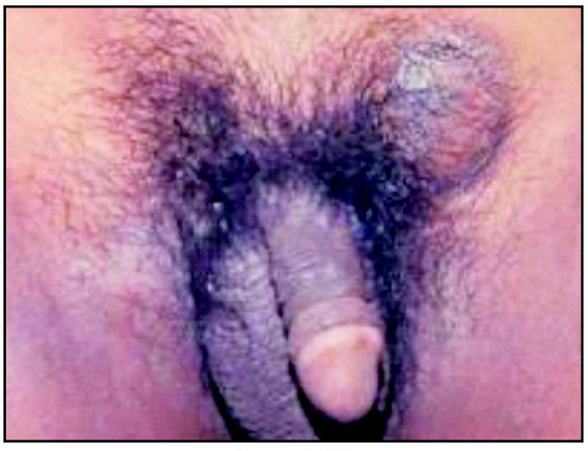


Fig 4s LGV

5. Diagnosis and Management of RTIs/STIs

A simplified tool (flowchart) will help to guide health workers in the management of RTIs/STIs. The flowcharts describe the clinical syndrome, specific RTIs/STIs under the syndrome and the causative organisms of the RTI/STI syndrome. Differential diagnosis of the conditions is also mentioned wherever appropriate. The approach to the lient with specific points to be considered during history taking and examination is highlighted. If facilities and skills are available, the laboratory tests which need to be done are also mentioned. The treatment protocols to be followed at the primary health care system with appropriate referrals where indicated is also given. Special emphasis is given on syndrome specific partner management and management issues specific to pregnancy.

Box 5.1 Important considerations for management of all clients of RTIs/STIs

Important considerations for management of all clients of RTIs/STIs

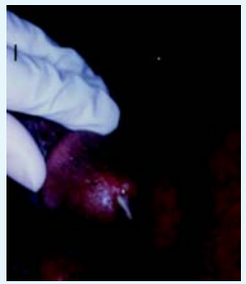
- Educate and counsel client and sex partner(s) regarding RTIs/STIs, genital cancers, safer sex practices and importance of taking complete treatment
- Treat partner(s) where ever indicated
- Advise sexual abstinence during the course of treatment
- Provide condoms, educate about correct and consistent use
- Refer for voluntary counseling and testing for HIV, Syphilis and Hepatitis B
- Consider immunization against Hepatitis B
- Schedule return visit after 7 days to ensure treatment compliance as well as to see reports of tests done.
- If symptoms persist, assess whether it is due to treatment failure or re-infection and advise prompt referral.

FLOWCHARTS

Flowcharts for Management of RTI/STI Syndromes

Flowchart 5.1 : Management of Urethral Discharge/Burning Micturition in Males

SYNDROME: URETHRAL DISCHARGE IN MALES



RTIs/STIs: GONORRHEA, CHLAMYDIAL INFECTION, TRICHOMONIASIS

Causative Organisms
- *Neisseria gonorrhoeae*
- *Chlamydia trachomatis*
- *Trichomonas vaginalis*

History of
- Urethral discharge
- Pain or burning while passing urine, increased frequency of urination
- Sexual exposure of either partner to high risk practices including oro-genital sex

Examination
Look for
- The urethral meatus for redness and swelling
- If urethral discharge is not seen, then gently massage the urethra from the ventral part of the penis towards the meatus and look for thick, creamy greenish-yellow or mucoid discharge

Laboratory Investigations (if available)
- Gram stain examination of the urethral smear will show gram-negative intracellular diplococci in case of gonorrhea,
- In non-gonococcal urethritis more than 5 neutrophils per oil immersion field (1000X) in the urethral smear or more than 10 neutrophils per high power field in the sediment of the first void urine are observed

Treatment

As dual infection is common, the treatment for urethral discharge should adequately cover therapy for both, gonorrhea and chlamydial infections.

Recommended regimen for uncomplicated gonorrhea + chlamydia

Uncomplicated infections indicate that the disease is limited to the anogenital region (anterior urethritis and proctitis).

- Tab. Cefixime 400 mg orally, single dose Plus

Tab Azithromycin 1 gram orally single dose under supervision

- Advise the client to return after 7 days of start of therapy

When symptoms persist or recur after adequate treatment for gonorrhea and chlamydia in the index client and partner(s), they should be treated for *Trichomonas vaginalis.*

If discharge or only dysuria persists after 7 days

- Tab. Secnidazole 2gm orally, single dose (to treat for *T. vaginalis*)

If the symptoms still persists

- Refer to higher centre as early as possible

If individuals are allergic to Azithromycin, give Erythromycin 500 mg four times a day for 7 days

Syndrome specific guidelines for partner management

- Treat all recent partners
- Treat female partners (for gonorrhea and chlamydia) on same lines after ruling out pregnancy and history of allergies
- Advise sexual abstinence during the course of treatment
- Provide condoms, educate about correct and consistent use
- Refer for voluntary counseling and testing for HIV, Syphilis and Hepatitis B
- Schedule return visit after 7 days

Follow up

After seven days

- To see reports of tests done for HIV, syphilis and Hepatitis B
- If symptoms persist, to assess whether it is due to treatment failure or re-infection
- For prompt referral if required

Management of pregnant partner

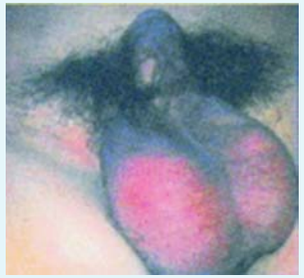
Pregnant partners of male clients with urethral discharge should be examined by doing a per speculum as well as per vaginal examination and should be treated for gonococcal as well as chlamydial infections.

- Cephalosporins to cover gonococcal infection are safe and effective in pregnancy
  - Tab. Cefixime 400mg orally, single dose or
  - Ceftriaxone 125mg by intramuscular injection
    +
  - Tab. Erythromycin 500mg orally four times a day for seven days or
  - Cap Amoxicillin 500mg orally, three times a day for seven days to cover chlamydial infection

- Quinolones (like ofloxacin, ciprofloxacin), doxycycline are contraindicated in pregnant women.

Flowchart 5.2: Management of Scrotal Swelling

SYNDROME: SCROTAL SWELLING



RTIs/STIs : GONORRHEA, CHLAMYDIAL INFECTION

Causative Organisms
- *Neisseria gonorrhoeae*
- *Chlamydia trachomatis*

History of
- Swelling and pain in scrotal region
- Pain or burning while passing urine
- Systemic symptoms like malaise, fever
- Sexual exposure including high risk practices like oro-genital sex

Examination
Look for
- Scrotal swelling
- Redness and edema of the overlying skin
- Tenderness of the epididymis and vas deferens
- Associated urethral discharge/genital ulcer/inguinal lymph nodes and if present refer to the respective flowchart
- A transillumination test to rule out hydrocoele should be done.

Laboratory Investigations
(If available)
- Gram stain examination of the urethral smear will show gram-negative intracellular diplococci in case of complicated gonococcal infection
- In non-gonococcal urethritis more than 5 neutrophils per oil immersion field in the urethral smear or more than 10 neutrophils per high power field in the sediment of the first void urine are observed

Differential diagnosis (non RTIs/STIs)

Infections causing scrotal swelling:
Tuberculosis, filariasis, coliforms, pseudomonas, mumps virus infection.

Non infectious causes:
Trauma, Hernia, Hydrocoele, Testicular torsion, and Testicular tumors

Treatment

- Treat for both gonococcal and chlamydial infections
  Tab Cefixime 400 mg orally BD for 7 days Plus
  Cap. Doxycycline 100mg orally, twice daily for 14 days and refer to higher centre as early as possible since complicated gonococcal infection needs parental and longer duration of treatment
- Supportive therapy to reduce pain (bed rest, scrotal elevation with T-bandage and analgesics)

Note

If quick and effective therapy is not given, damage and scarring of testicular tissues may result causing sub fertility

Syndrome specific guidelines for partner management

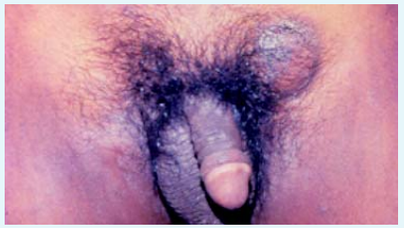
Partner needs to be treated depending on the clinical findings

Management protocol in case the partner is pregnant

- Depending on the clinical findings in the pregnant partner (whether vaginal discharge or endocervical discharge or PID is present) the drug regimens should be used.
- Doxycycline is contraindicated in pregnancy
- Erythromycin base/Amoxicillin can be used in pregnancy.

(Erythromycin estolate is contraindicated in pregnancy due to hepatotoxicity. Erythromycin base or erythromycin ethyl succinate should be given)

SYNDROME: INGUINAL BUBO



RTIs/STIs: LGV, CHANCROID
Causative Organisms

- *Chlamydia trachomatis* serovars *L1, L2, L3*, causative agent of lympho granuloma venerum (LGV)
- *Haemophilus ducreyi* causative agent of chancroid

History
- Swelling in inguinal region which may be painful
- Preceding history of genital ulcer or discharge
- Sexual exposure of either partner including high risk practices like oro-genital sex etc
- Systemic symptoms like malaise, fever

Examination
Look for
- Localized enlargement of lymph nodes in groin which may be tender and fluctuant
- Inflammation of skin over the swelling
- Presence of multiple sinuses
- Edema of genitals and lower limbs
- Presence of genital ulcer or urethral discharge and if present refer to respective flowchart

Laboratory Investigations
Diagnosis is on clinical grounds

Differential diagnosis
- Mycobacterium tuberculosis, filariasis
- Any acute infection of skin of pubic area, genitals, buttocks, anus and lower limbs can also cause inguinal swelling

If malignancy or tuberculosis is suspected refer to higher centre for biopsy.

Treatment

- Start Cap. Doxycycline 100mg orally twice daily for 21 days (to cover LGV)
  Plus
- Tab Azithromycin 1g orally single dose OR
- Tab. Ciprofloxacin 500mg orally, twice a day for three days to cover chancroid
- Refer to higher centre as early as possible.

Note:

- *A bubo should never be incised and drained at the primary health centre, even if it is fluctuant, as there is a high risk of a fistula formation and chronicity. If bubo becomes fluctuant always refer for aspiration to higher centre.*
- *In severe cases with vulval edema in females, surgical intervention may be required for which they should be referred to higher centre.*

Syndrome specific guidelines for partner management

- Treat all partners who are in contact with client in last 3 months
- Partners should be treated for chancroid and LGV
- Tab Azithromycin 1g orally single dose to cover chancroid

+

Cap Doxycycline 100mg orally, twice daily for 21 days to cover LGV

- Advise sexual abstinence during the course of treatment
- Provide condoms, educate on correct and consistent use
- Refer for voluntary counseling and testing for HIV, syphilis and Hepatitis B
- Schedule return visit after 7 days and 21 days

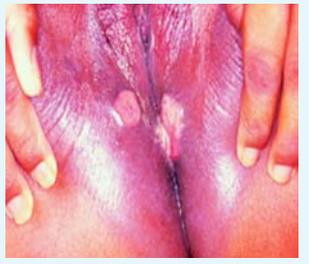
Management of pregnant partner

- Quinolones (like ofloxacin, ciprofloxacin), doxycycline, sulfonamides are contraindicated in pregnant women.
- Pregnant and lactating women should be treated with the erythromycin regimen, and consideration should be given to the addition of a parenteral amino glycoside (e.g., gentamicin)

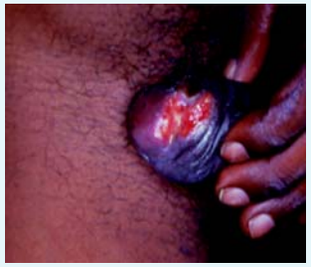
Tab. Erythromycin base, 500mg orally, 4 times daily for 21 days and refer to higher centre.

(Erythromycin estolate is contraindicated in pregnancy due to hepatotoxicity. Erythromycin base or erythromycin ethyl succinate should be given)

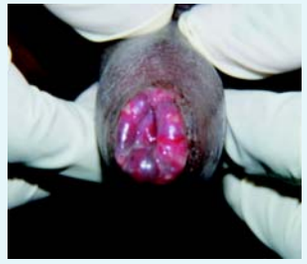
Flowchart 5.4: Management of Genital Ulcers



RTIs/STIs: SYPHILIS



CHANCROID



GENITAL HERPES

Causative Organisms
- *Treponema pallidum* (syphilis)
- *Haemophilus ducreyi* (chancroid)
- *Klebsiella granulomatis* (granuloma inguinale)
- *Chlamydia trachomatis* (lymphogranuloma venerum)
- *Herpes simplex* (genital herpes)

History
- Genital ulcer/vesicles
- Burning sensation in the genital region
- Sexual exposure of either partner to high risk practices including oro-genital sex

Examination
- Presence of vesicles
- Presence of genital ulcer- single or multiple
- Associated inguinal lymph node swelling and if present refer to respective flowchart

Ulcer characteristics:
- Painful vesicles/ulcers, single or multiple - Herpes simplex
- Painless ulcer with shotty lymph node - Syphilis
- Painless ulcer with inguinal lymph nodes - Granuloma inguinale and LGV
- Painful ulcer usually single sometimes associated with painful bubo - Chancroid

Laboratory Investigations
- RPR test for syphilis
- For further investigations refer to higher centre

Treatment

- If vesicles or multiple painful ulcers are present treat for herpes with Tab. Acyclovir 400mg orally, three times a day for 7 days
- If vesicles are not seen and only ulcer is seen, treat for syphilis and chancroid and counsel on herpes genitalis

To cover syphilis give

Inj Benzathine penicillin 2.4 million IU IM after test dose in two divided doses (with emergency tray ready)

(In individuals allergic or intolerant to penicillin, Doxycycline 100mg orally, twice daily for 14 days)

+

Tab Azithromycin 1g orally single dose or

Tab. Ciprofloxacin 500mg orally, twice a day for three days to cover chancroid

Treatment should be extended beyond 7 days if ulcers have not epithelialized i.e. formed a new layer of skin over the sore)

Refer to higher centre

- If not responding to treatment
- Genital ulcers co-existent with HIV
- Recurrent lesion

Syndrome specific guidelines for partner management

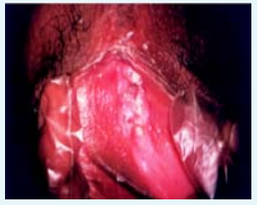
- Treat all partners who are in contact with client in last 3 months
- Partners should be treated for syphilis and chancroid
- Advise sexual abstinence during the course of treatment
- Provide condoms, educate about correct and consistent use
- Refer for voluntary counseling and testing for HIV, Syphilis and Hepatitis B
- Schedule return visit after 7 days

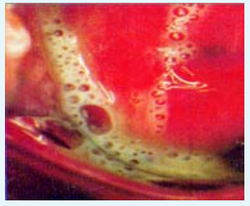
Management of Pregnant Women

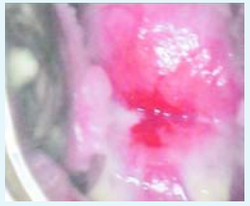
- Quinolones (like ofloxacin, ciprofloxacin), doxycycline, sulfonamides are contraindicated in pregnant women.
- Pregnant women who test positive for RPR should be considered infected unless adequate treatment is documented in the medical records and sequential serologic antibody titers have declined.
- Inj Benzathine penicillin 2.4 million IU IM after test dose (with emergency tray ready)
- A second dose of benzathine penicillin 2.4 million units IM should be administered 1 week after the initial dose for women who have primary, secondary, or early latent syphilis.
- Pregnant women who are allergic to penicillin should be treated with erythromycin and the neonate should be treated for syphilis after delivery.
- Tab. Erythromycin 500mg orally four times a day for 15 days
- (Note: Erythromycin estolate is contraindicated in pregnancy because of drug related hepatotoxicity. Only Erythromycin base or erythromycin ethyl succinate should be used in pregnancy)
- All pregnant women should be asked history of genital herpes and examined carefully for herpetic lesions.
- Women without symptoms or signs of genital herpes or its prodrome can deliver vaginally.
- Women with genital herpetic lesions at the onset of labour should be delivered by caesarean section to prevent neonatal herpes.
- Acyclovir may be administered orally to pregnant women with first episode genital herpes or severe recurrent herpes.

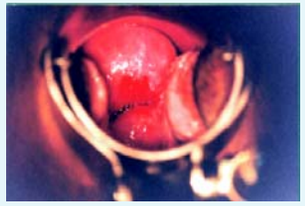
Flowchart 5.5: Management of Vaginal Discharge in Females

SYNDROME: VAGINAL DISCHARGE


VAGINITIS


TRICHOMONIASIS


CERVICAL HERPES


CERVICITIS

Causative Organisms
Vaginitis
- *Trichomonas vaginalis* (TV)
- *Candida albicans*
- *Gardnerella vaginalis, Mycoplasma* causing bacterial vaginosis (BV)

Causative Organisms
Cervicitis
- *Neisseria Gonorrheae*
- *Chlamydia trachomatis*
- *Trichomonas vaginalis*
- *Herpes simplex virus*

History
- Menstrual history to rule out pregnancy
- Nature and type of discharge (amount, smell, color, consistency)
- Genital itching
- Burning while passing urine, increased frequency
- Presence of any ulcer, swelling on the vulval or inguinal region
- Genital complaints in sexual partners
- Low backache

Examination
- Per speculum examination to differentiate between vaginitis and cervicitis.
  a) Vaginitis:
  Trichomoniasis - greenish frothy discharge
  Candidiasis - curdy white discharge
  Bacterial vaginosis – adherent discharge
  Mixed infections may present with atypical discharge
  b) Cervicitis:
  Cervical erosion /cervical ulcer/ mucopurulent cervical discharge
- Bimanual pelvic examination to rule out pelvic inflammatory disease
- If Speculum examination is not possible or client is hesitant treat both for vaginitis and cervicitis

Laboratory Investigations (if available)
- Wet mount microscopy of the discharge for Trichomonas vaginalis and clue cells
- 10% KOH preparation for Candida albicans
- Gram stain of vaginal smear for clue cells seen in bacterial vaginosis
- Gram stain of endocervical smear to detect gonococci

Treatment
Vaginitis (TV+BV+Candida)

- Tab. Secnidazole 2gm orally, single dose or
  Tab. Tinidazole 500mg orally, twice daily for 5 days
- Tab. Metoclopropramide taken 30 minutes before Tab. Secnidazole, to prevent gastric intolerance
- Treat for candidiasis with Tab Fluconazole 150mg orally single dose or local Clotrimazole 500mg vaginal pessaries once

Treatment for cervical infection (chlamydia and gonorrhea)

- Tab cefixim 400 mg orally, single dose
- Plus Azithromnycin 1 gram, 1 hour before lunch. If vomiting within 1 hour, give anti-emetic and repeat

  - If vaginitis and cervicitis are present treat for both
  - Instruct client to avoid douching
  - Pregnancy, diabetes, HIV may also be influencing factors and should be considered in recurrent infections
  - Follow-up after one week

Management in pregnant women
Per speculum examination should be done to rule out pregnancy complications like abortion, premature rupture of membranes
Treatment for vaginitis (TV+BV+Candida)
In first trimester of pregnancy

- Local treatment with Clotrimazole vaginal pessary/cream only for candidiasis. Oral Flucanozole is contraindicated in pregnancy.
- Metronidazole pessaries or cream intravaginally if trichomoniasis or BV is suspected.

In second and third trimester oral metronidazole can be given

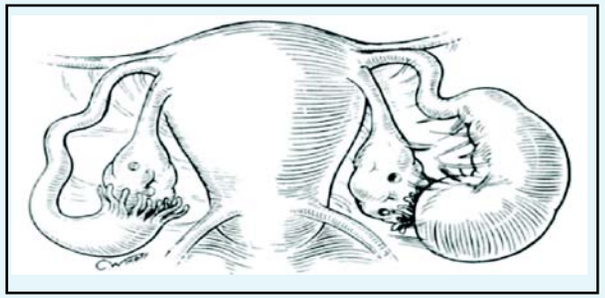
- Tab. Secnidazole 2gm orally, single dose or
- Tab. Metoclopropramide taken 30 minutes before Tab. Metronidazole, to prevent gastric intolerance

Specific guidelines for partner management

- Treat current partner only if no improvement after initial treatment
- If partner is symptomatic, treat client and partner using above protocols
- Advise sexual abstinence during the course of treatment
- Provide condoms, educate about correct and consistent use
- Schedule return visit after 7 days

Flowchart 5.6: Management of Lower Abdominal Pain in Females

SYNDROME: LOWER ABDOMINAL PAIN



Pelvic inflammatory disease

Causative Organisms
- *Neisseria gonorrheae*
- *Chlamydia trachomatis*
- *Mycoplasma,Gardnerella,* Anaerobic bacteria (Bacteroides sp,gram positive cocci)

History
- Lower abdominal pain
- Fever
- Vaginal discharge
- Menstrual irregularities like heavy, irregular vaginal bleeding
- Dysmenorrhoea
- Dyspareunia
- Dysuria, tenesmus
- Low backache
- Contraceptive use like IUD

Examination
- General examination: temperature, pulse, blood pressure
- Per speculum examination: vaginal/cervical discharge, congestion or ulcers
- Per abdominal examination: lower abdominal tenderness or guarding
- Pelvic examination: Uterine/adnexal tenderness, cervical movement tenderness,

Note: A urine pregnancy test should be done in all women suspected of having PID to rule out ectopic pregnancy.

Laboratory Investigations

If available
- Wet smear examination
- Gram stain for gonorrhea
- Complete blood count and ESR
- Urine microscopy for pus cells

Differential diagnosis
- Ectopic pregnancy
- Twisted ovarian cyst
- Ovarian tumor
- Appendicitis
- Abdominal tuberculosis

Treatment (Out Client treatment)

In mild or moderate PID (in the absence of tubo ovarian abscess), outClient treatment can be given. Therapy is required to cover *Neisseria gonorrheae, Chlamydia trachomatis* and anaerobes.

- Tab. Cefixim 400 mg orally BD for 7 days + Tab. Metronidazole 400mg orally, twice daily for 14 days
  +
- Doxycycline, 100mg orally, twice a day for 2 weeks (to treat chlamydial infection)
- Tab. Ibuprofen 400mg orally, three times a day for 3-5 days
- Tab. Ranitidine 150mg orally , twice daily to prevent gastritis
- Remove intra uterine device, if present, under antibiotic cover of 24-48 hours
- Advise abstinence during the course of treatment and educate on correct and consistent use of condoms
- Observe for 3 days. If no improvement (i.e. absence of fever, reduction in abdominal tenderness, reduction in cervical movement, adnexal and uterine tenderness) or if symptoms worsen, refer for inClient treatment.

Caution: PID can be a serious condition. Refer the client to the hospital if she does not respond to treatment within 3 days and even earlier if her condition worsens.

Syndrome specific guidelines for partner management

- Treat all partners in past 2 months
- Treat male partners for urethral discharge (gonorrhea and chlamydia)
- Advise sexual abstinence during the course of treatment
- Provide condoms, educate on correct and consistent use
- Refer for voluntary counseling and testing for HIV, Syphilis and Hepatitis B
- Inform about the complications if left untreated and sequelae
- Schedule return visit after 3 days, 7 days and 14 days to ensure compliance

Management of Pregnant Women

Though PID is rare in pregnancy,

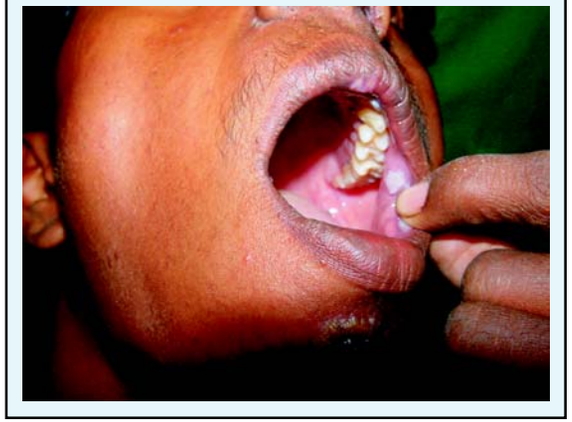
- Any pregnant woman suspected to have PID should be referred to district hospital for hospitalization and treated with a parenteral regimen which would be safe in pregnancy.
- Doxycycline is contraindicated in pregnancy.
- Note: Metronidazole is generally not recommended during the first three months of pregnancy. However, it should not be withheld for a severely acute PID, which represents an emergency

Hospitalization of clients with acute PID should be seriously considered when:

- The diagnosis is uncertain
- Surgical emergencies e.g. appendicitis or ectopic pregnancy cannot be excluded
- A pelvic abscess is suspected
- Severe illness precludes management on an outClient basis
- The woman is pregnant
- The client is unable to follow or tolerate an outClient regimen
- The client has failed to respond to outClient therapy

Note: All Clients requiring hospitalization should be referred to the district hospital

Flowchart 5.7: Management of Oral & Anal STIs



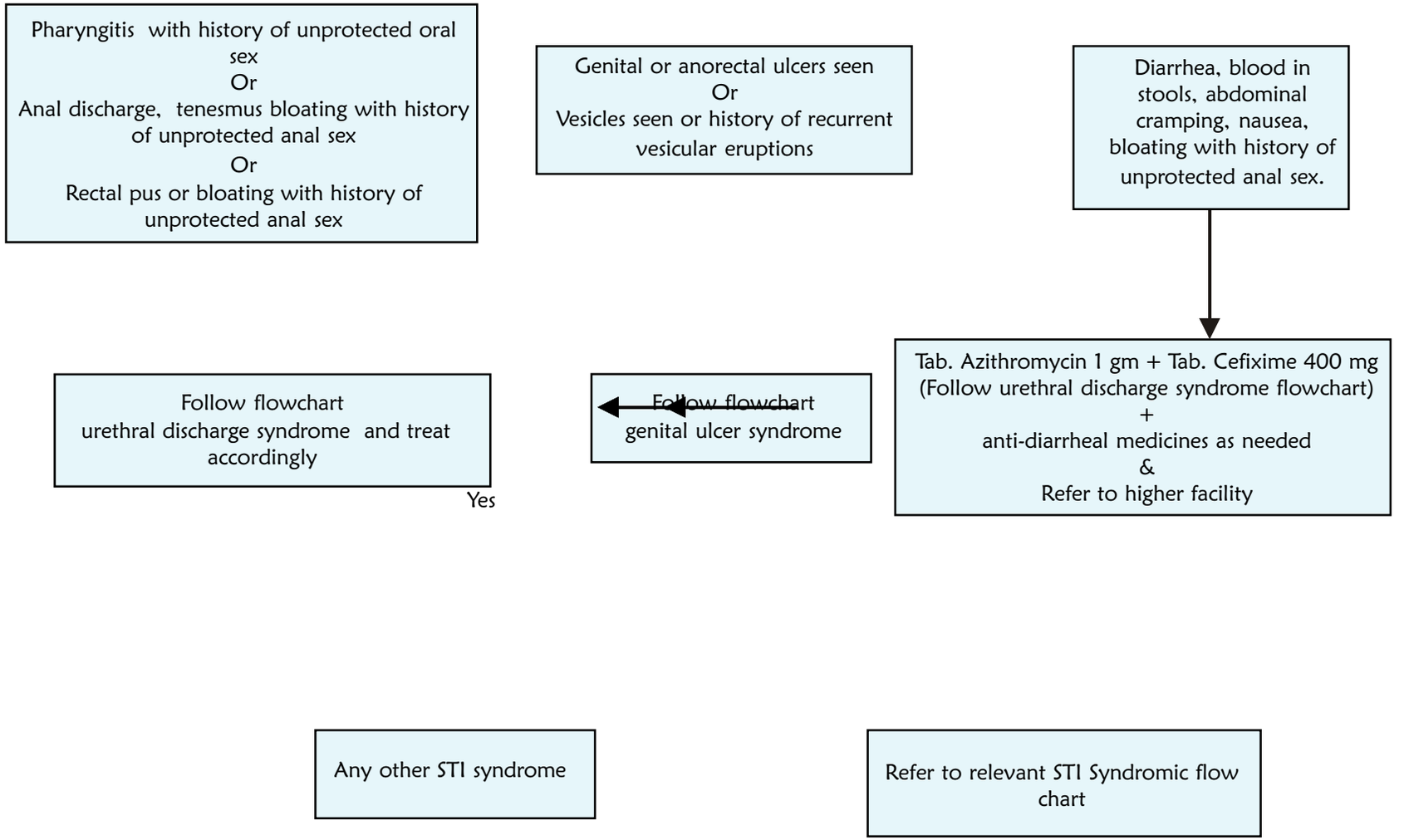
Causative Organisms
- *Neisseria gonorrhoeae*
- *Chlamydia trachomatis*
- *Treponema pallidum* (syphilis)
- *Haemophilus ducreyi* (chancroid)
- *Klebsiella granulomatis* (granuloma inguinale)
- *Herpes simplex* (genital herpes)

History of
- Unprotected oral sex with pharyngitis
- Unprotected anal sex with anal discharge or tenesmus, diarrhea, blood in stool, abdominal cramping, nausea, bloating

Examination
Look for
- Oral ulceration, redness, pharyngeal inflammation
- Genital or anorectal ulcers – single or multiple
- Presence of vesicles
- Rectal pus
- Any other STI syndrome

(Do proctoscopy for rectal examination if available)

Laboratory Investigations
- RPR/VDRL for syphilis
- Gram stain examination of rectal swab will show gram negative intracellular diplococcic in case of gonorrhea.


Pharyngitis with history of unprotected oral sex
Or
Anal discharge, tenesmus bloating with history of unprotected anal sex
Or
Rectal pus or bloating with history of unprotected anal sex
Genital or anorectal ulcers seen
Or
Vesicles seen or history of recurrent vesicular eruptions
Diarrhea, blood in stools, abdominal cramping, nausea, bloating with history of unprotected anal sex.
Tab. Azithromycin 1 gm + Tab. Cefixime 400 mg
(Follow urethral discharge syndrome flowchart)
+
anti-diarrheal medicines as needed
&
Refer to higher facility
Follow flowchart
genital ulcer syndrome
Follow flowchart
urethral discharge syndrome and treat accordingly
Yes
Any other STI syndrome
Refer to relevant STI Syndromic flow chart

Management of Anogenital warts

Fig 5 a to c: Anogenital warts

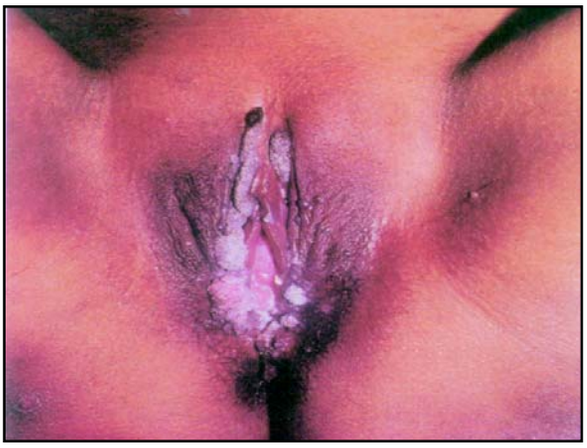


Fig 5a: Perivulval warts

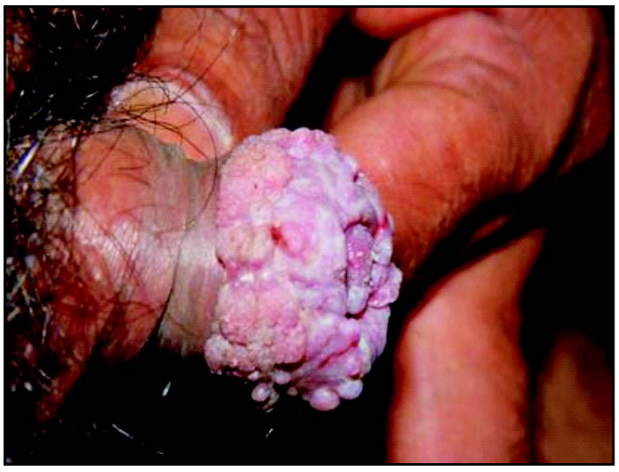


Fig 5b: Penile warts

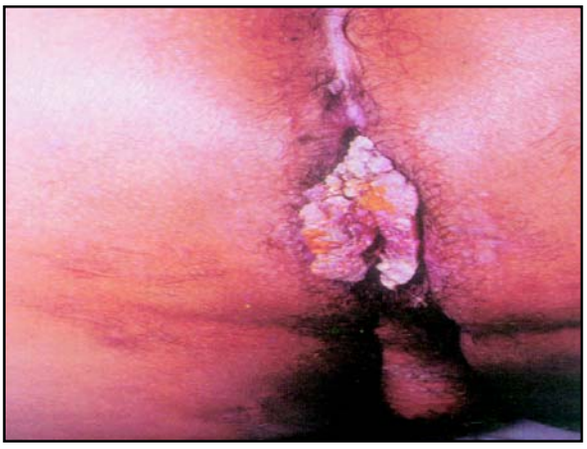


Fig 5c:Perianal warts

Management of Molluscum contagiosum and Ectoparasitic infestation

Causative Organism

Virus: Human Papilloma Virus (HPV)

Clinical features

Single or multiple soft, painless, pink in color, "cauliflower" like growths which appear around the anus, vulvo-vaginal area, penis, urethra and perineum. Warts could appear in other forms such as papules which may be keratinized.

Diagnosis

Presumptive diagnosis by history of exposure followed by signs and symptoms.

Differential diagnosis

i. Condyloma lata of syphilis

ii. Molluscum contagiousm

Treatment

Recommended regimens:

Penile and Perianal warts

- 20% Podophyllin in compound tincture of benzoin applied to the warts, while carefully protecting the surrounding area with Vaseline, to be washed off after 3 hours. It should not be used on extensive areas per session.
- Treatment should be repeated weekly till the lesions resolve completely.

Note: Podophyllin is contra-indicated in pregnancy. Treatment should be given under medical supervision. Clients should be warned against self-medication.

Cervical warts

- Podophyllin is contra-indicated.
- Biopsy of warts to rule out malignant change.
- Cryo cauterization is the treatment of choice.
- Cervical cytology should be periodically done in the sexual partner(s) of men with genital warts.

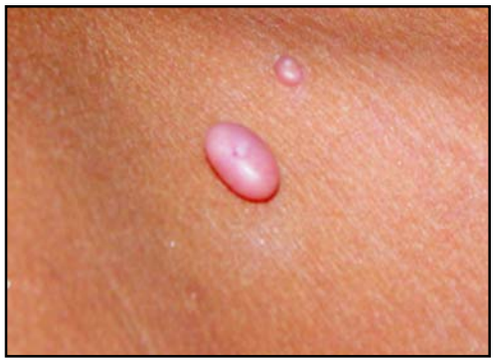


Fig 5d: Molluscum contagiosum

Causative Organism

Pox virus

Clinical features

Multiple, smooth, glistening, globular papules of varying size from a pinhead to a split pea can appear anywhere on the body. Sexually transmitted lesions on or around genitals can be seen. The lesions are not painful except when secondary infection sets in. When the lesions are squeezed, a cheesy material comes out.

Diagnosis

Diagnosis is based on the above clinical features.

Treatment

- Individual lesions usually regress without treatment in 9-12 months.
- Each lesion should be thoroughly opened with a fine needle or scalpel. The contents should be exposed and the inner wall touched with 25% phenol solution or 30% trichloracetic acid.

Pediculosis pubis

Causative Organism

Lice - Phthirus pubis

Clinical features

There may be small red papules with a tiny central clot caused by lice irritation.

General or local urticaria with skin thickening may or may not be present. Eczema and Impetigo may be present.

Treatment

Recommended regimen:

- Permethrin 1% creme rinse applied to affected areas and wash off after 10 minutes

Special instructions

- Retreatment is indicated after 7 days if lice are found or eggs observed at the hair-skin junction.
- Clothing or bed linen that may have been contaminated by the client should be washed and well dried or dry cleaned.
- Sexual partner must also be treated along the same lines.

Scabies

Causative Organism: Mite - Sarcoptes Scabiei.

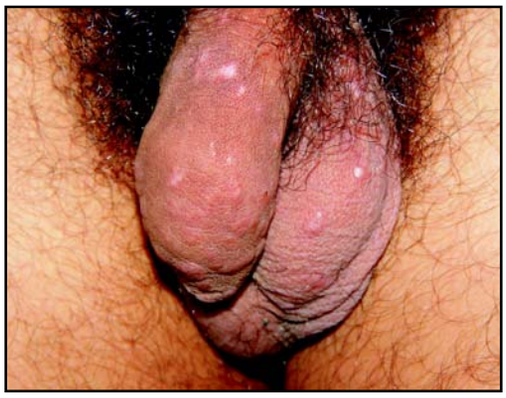


Fig 5e: Genital Scabies

Clinical features

Severe pruritis (itching) is experienced by the client, which becomes worse at night. Other members of family also affected (apart from sexual transmission to the partner, other members may get infected through contact with infected clothes, linen or towels).

Complications

- Eczematization with or without secondary infection
- Urticaria
- Glomerulonephritis
- Contact dermatitis to antiscabetic drug

Diagnosis

The burrow is the diagnostic sign. It can be seen as a slightly elevated grayish

dotted line in the skin, best seen in the soft part of the skin.

Treatment

Recommended regimens:

- Permethrin cream (5%) applied to all areas of the body from the neck down and washed off after 8—14 hours.
- Benzyl benzoate 25% lotion, to be applied all over the body, below the neck, after a bath, for two consecutive nights. Client should bathe in the morning, and have a change of clothing. Bed linen is to be disinfected.

Special instructions

- Clothing or bed linen that have been used by the client should be thoroughly washed and well dried or dry cleaned.
- Sexual partner must also be treated along the same lines at the same time.

Partner management

> Partner management is an activity in which the partners of those identified as having RTI/STI are located, informed of their potential risk of infection, and offered treatment and counseling services.

Timely partner management serves following purpose:

- Prevention of re-infection
- Prevention of transmission from infected partners and
- Help in detection of asymptomatic individuals, who do not seek treatment.

Critical issues on partner management

- Confidentiality: Partners should be assured of confidentiality. Many times partners do not seek services, as they perceive confidentiality as a serious problem. Respecting dignity of client and ensuring confidentiality will promote partner management.
- Voluntary reporting: Providers must not impose any pre-conditions giving treatment to the index client. Providers may need to counsel client several times to emphasize the importance of client initiated referral of the partners.
- Client initiated partner management: Providers should understand that because of prevailing gender inequities, women may not be in position always to communicate to their partners regarding need for partner management. Such client imitated partner management may not work in some relationships and may also put women at the risk of violence. Hence alternative approaches should be considered in such situations.

- Availability of services: RTI/STI diagnostic and treatment services should be available to all partners. This may mean finding ways to avoid long waiting times. This is important because many asymptomatic partners are reluctant to wait or pay for services when they feel healthy.

Approaches for partner management

There are two approaches to partner management:

i. Referral by index client

In this approach, index client informs the partner/s of possible infection. This appears to be a feasible approach, because it does not involve extra personnel, is inexpensive and does not require any identification of partners. A partner notification card with relevant diagnostic code should be given to each index client, where partner management is indicated. This approach may also include use of client initiated therapy for all contacts.

ii. Referral by providers

In this approach service provider contacts client's partners through issuing appropriate partner notification card. The information provided by client is used confidentially to trace and contact partners directly. This approach needs extra staff and is expensive.

Box 5.1: Coupon for a free examination

Coupon for a free examination

Date:

Please attend following centers along with the card

Stamp of the Facility

Timings:

Diagnostic Code:

Sample Partner reporting card

Note: *A two-step strategy can be used where clients are first asked to contact partners themselves. If no response till one or two weeks, clinic or health department staff can attempt to trace the contact for treatment.*

General principles for partner management

- In general, partners should be treated for the same STI as the index client, whether or not they have symptoms or signs of infection.

- Health care providers should be as sure as possible about the presence of an STI before informing and treating the partner, and should remember that other explanations are possible for most RTI symptoms like vaginal discharge.
- Special care is required in notifying partners of women with lower abdominal pain who are being treated for possible pelvic inflammatory disease. Because of the serious potential complications of PID (infertility, ectopic pregnancy), partners should be treated to prevent possible re-infection. It should be recognized, however, that the diagnosis of PID on clinical grounds is inaccurate, and the couple should be adequately counseled about this uncertainty. It is usually better to offer treatment as a precaution to preserve future fertility than to mislabel someone as having an STI when they may not have one.

Follow-up visits

Follow up visits should be advised

- To see reports of tests done for HIV, Syphilis and Hepatitis B.
- If symptoms persist, advise clients to come back for follow up after 7 days. In case of PID, follow up should be done after 2 to 3 days.

Management of treatment failure and re-infection

When clients with an RTI/STI do not respond to treatment, it is usually because of either treatment failure or re-infection. Ask the following questions to ascertain the cause:

<u>To probe for treatment failure</u>

- Did you take all your medicines as directed?
- Did you share your medicine with anyone, or stop taking medicines after feeling some improvement?
- Was treatment based on the national treatment guidelines? Also consider the possibility of drug resistance if cases of treatment failure are showing an increasing trend.

<u>To probe for re-infection</u>

- Did your partner(s) come for treatment?
- Did you use condoms or abstain from sex after starting treatment?

Note: *Recurrence is also common with endogenous vaginal infections, especially when underlying reasons (douching, vaginal drying agents, diabetes mellitus hormonal contraceptives) are not addressed.*

Box 5.2: Management of treatment failure and re-infection

For treatment failure

All cases of treatment failures should be referred to higher health facility.

For re-infection

- Consider re-treatment with same antibiotics.
- Refer to higher health facility if symptoms persist.

Screening for Asymptomatic Clients

It is well known that most RTIs/STIs are asymptomatic, especially amongst the women. The case finding is a process of opportunistic screening for an infection at the time when an individual presents to a health facility, regardless of presence of symptoms. Case findings opportunities are most commonly seen while providing services for contraception. Providers should use opportunities for potential contraceptive clients to screen for RTIs/STIs. The National Guidelines for IUD, Oral Pills, National Standards for Sterilization Services provide detailed guidelines regarding screening of RTIs/STIs.

Similar opportunities exist in pregnancy care settings. Most common screening programmes worldwide are those for detecting syphilis in pregnant women. Untreated syphilis in pregnant female is associated with number of adverse outcomes such as pregnancy loss, stillbirths and congenital syphilis. Providers are recommended to follow Government of India's following guidelines while providing services to pregnant women:

1. Guidelines for Pregnancy Care and Management of Common Obstetric Complications by Medical Officers, 2005.
2. Guidelines for Ante-Natal Care and Skilled Attendance at Birth by ANMs and LHVs, 2006.

6. RTIs/STIs Among Special Populations

6.1 Sexually Transmitted Infections (RTIs) among children and adolescents

Reproductive tract infections in children are acquired through three different ways (i) transplacental transmission occurring in utero, intrapartum transmission (during labour and delivery) e.g. syphilis, HIV, cytomegalovirus (CMV) and human papilloma virus infection (HPV) ; (ii) postnatal transmission (during breast-feeding, accidental and through sexual abuse) (iii) due to sexual abuse or in sexually active adolescents who are at risk.

Child sexual abuse is the use of a child as an object of gratification for adult sexual needs or desire. The common sexual abuse encountered by girls is genital contact, masturbation, vaginal, oral or anal intercourse by a male perpetrator, while boys are subjected to felatio and anal intercourse.

Adolescents and youth in the age group 10-24 years contribute to about 30% of our population. The data from various Indian studies reveal that adolescents indulge in pre-marital sex more frequently and at an early age. STIs, including HIV, are most common among young people aged 15-24 years and more so in young women. The physiological risk of increased susceptibility to infections among adolescent girls is due to the presence of greater cervical ectopy which makes the cervix more susceptible to gonorrhea, chlamydia and HPV. Adolescents today face enhanced vulnerability to unwanted pregnancy and STIs including HIV/AIDS. Studies from African countries suggest that girls marrying at an early age are at high risk of HIV infections. Many interrelated and complex factors that put adolescents at risk of STIs include poor education, unemployment and poverty. Urbanization tends to disrupt family relationships, social networks and traditional values while generating more opportunity for sexual encounters. Lack of information about sexual matters, as well as STI prevention, symptoms and treatment also put both male and female adolescents at risk of STIs. Even when adolescents have accurate knowledge about STD's, some incorrectly perceive their risk as low either due to familiarity with a sexual partner or as relationship matures or simply because they are passing through a stage of life in which risk taking is particularly attractive especially under the strong influence of their peers, migration and displacement, multiple and concurrent sexual partnership, lack of access to effective and affordable STI services. Therefore there is an urgent need for improving the accessibility of adolescents to preventive and curative services including information and counseling.

In the RCH II, Adolescent Reproductive and Sexual Health (ARSH) Strategy is to be implemented in the primary health care setting based on the implementation Guide for state and district program managers. Under this strategy, it is expected that a core package of promotive, preventive, curative, counseling, referral and outreach services would be provided through the public health care facilities. It states that services for adolescents must demonstrate relevance to the needs and wishes of the young people.

Clinical presentation of RTIs/STIs in children and adolescents

The presenting symptoms of adolescents is very peculiar as very often they present with symptoms other than those of RTI/STI. Therefore risk assessment plays a crucial role. The increasing tendency

of homosexual behavior as reported by some studies must also be kept in mind and ano-genital lesions must be looked for.

Girls:

- In general, endogenous vaginitis rather than an STI is the main cause of vaginal discharge among adolescent females.
- Approximately 85% of gonococcal infection in females will be asymptomatic. However, there may be vulval itching, minor discharge, urethritis or proctitis. In pre-pubescent girls, a purulent vulvo-vaginitis may occur.
- Similarly, Chlamydia trachomatis infection is asymptomatic in the majority of cases. Symptoms that may occur in the adolescent are inter-menstrual bleeding, postcoital bleeding and an increase in vaginal secretions.
- Candida albicans is uncommon in adolescents prior to puberty. If present, the adolescent may have a discharge, vulval itching, dyspareunia, peri-anal soreness or a fissuring at the introitus. Attacks of candida vulvitis may be cyclical in nature and corresponds to menstruation.
- Bacterial vaginosis does not produce vulvitis and the adolescent will not complain of itching or soreness.
- The signs of acquired syphilis in children present with small chancres or mucocutaneous moist lesions either on the vulva or anus. Presentation of syphilis is the same in adolescents and adults.

Boys :

- Gonorrhea among boys presents as proctitis, urethral discharge, asymptomatic pyuria, penile edema, epididyimitis and testicular swelling. Disseminated gonorrhoea presents with multiple systemic manifestations.
- Chlamydia in males presents as urethritis.

6.2 Sexually Transmitted Infections (STIs) among Sex Workers and MSMs

In some groups of population with high risk practices such as sex workers, men having sex with men and intravenous drug users, the prevalence of STIs and HIV is higher than the general population. Treating these clients early and appropriately will reduce risk of HIV infection and if already infected, they can be advised for seeking the available services at the integrated testing and counseling facilities for knowing of HIV status and further follow up action as indicated. It is desirable that all clients with risky behaviour are tested.

6.3 Clinical Management of STI in Most at Risk Groups

High rates of curable STIs have been observed worldwide in commercial sex settings where condom use rates are low and access to effective STI treatment services is limited.

Effective prevention and treatment of STIs among female sex workers requires attention to both symptomatic and asymptomatic infections. The prevention and treatment of STIs in female sex workers in STI clinics should have the following two components:

- *Treatment of Symptomatic Infections*
  - As per the flow charts included in these guidelines.
- *Screening and Treatment of Asymptomatic Infections*
  - Periodic history taking, clinical examination and simple laboratory diagnostics (where available);
  - Periodic presumptive treatment for asymptomatic gonococcal and chlamydial infections (in areas with high STI rates and minimal STI services); and
  - Semi-annual serologic screening for syphilis.

Female sex workers should be encouraged to attend the clinic for routine check-ups. During the visit, the clinic staff should take a detailed history and perform an examination. In addition, even if there is no evidence of infection, treatment is recommended if:

- the sex worker is visiting the clinic for the first time;
- six months have passed since the sex worker last received treatment.

The rationale for presumptively treating sex workers who are asymptomatic is that they are frequently exposed to STIs and they often do not show signs or symptoms even when infected. A sex worker is likely to be exposed and infected with a STI, if the time lapse is more since her last treatment. (Note: This recommendation will be reviewed and revised as data on the epidemiology of STIs among sex workers become available).

It is anticipated as STI prevalence falls, periodic presumptive treatment of asymptomatic STI treatment among sex workers will be tapered to first visit asymptomatic treatment under the following conditions:

- Evidence of low gonococcal and chlamydial infections (10% and below);
- High condom use among sex workers (>70%); and
- High quality STI services for sex workers have been established, with almost 80% of sex workers having access to STI services (80% provided with asymptomatic treatment at least once and are coming to the clinic for regular STI screening).

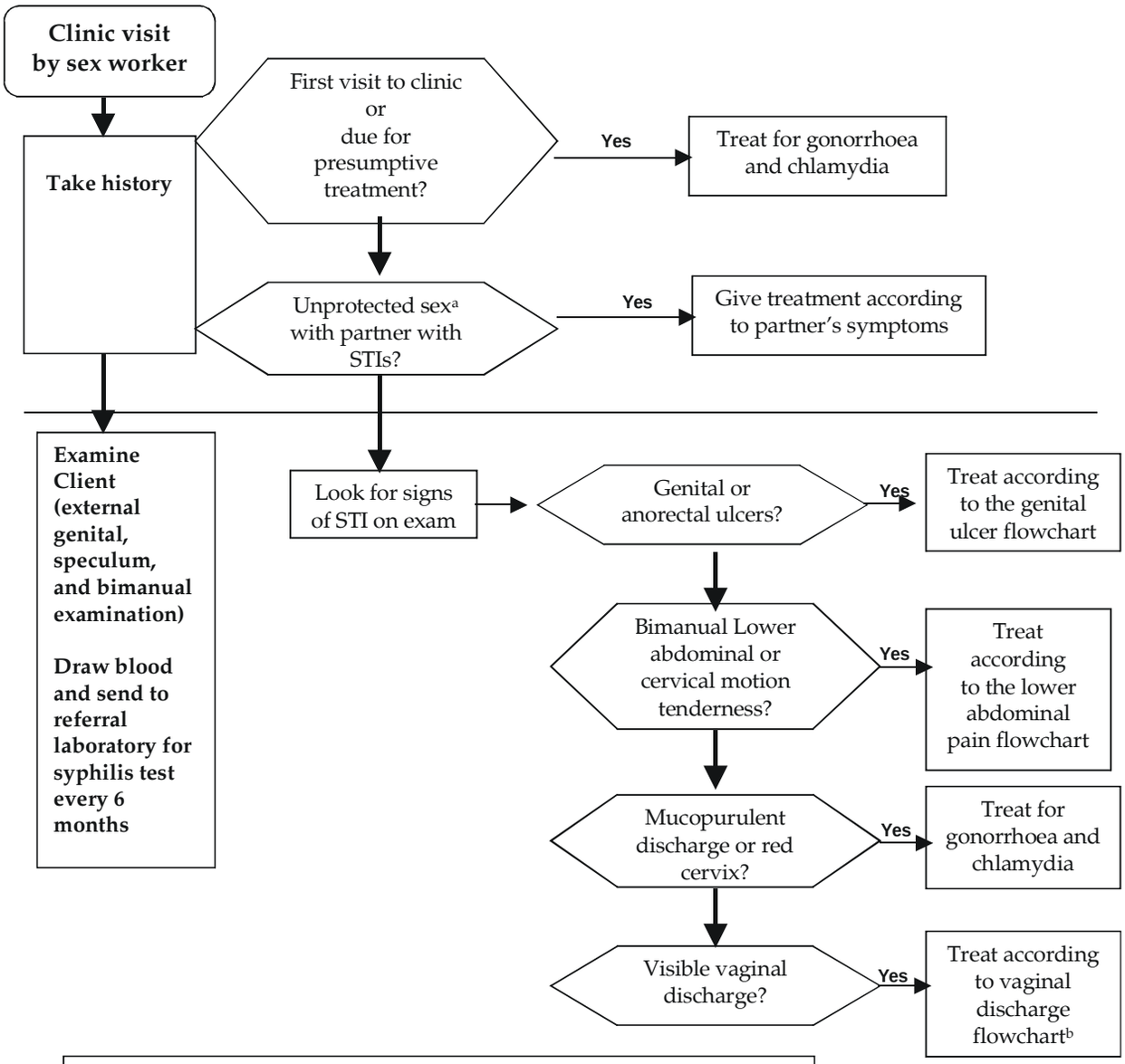
In such situations, regular visits for routine examination and counseling should be promoted. Sex workers should be counseled at every opportunity (in the clinic and in the community) on the importance of using condoms. Peer educators, outreach workers and clinic staff should reinforce the following message to sex workers visiting the clinic:

- The only reliable way to protect oneself from HIV and STIs is to use condoms consistently and correctly; and
- Antibiotics dispensed at the clinic are effective only for the few curable STIs.

Outreach staff should also remind sex workers about their clinic appointments and help them keep their appointments.

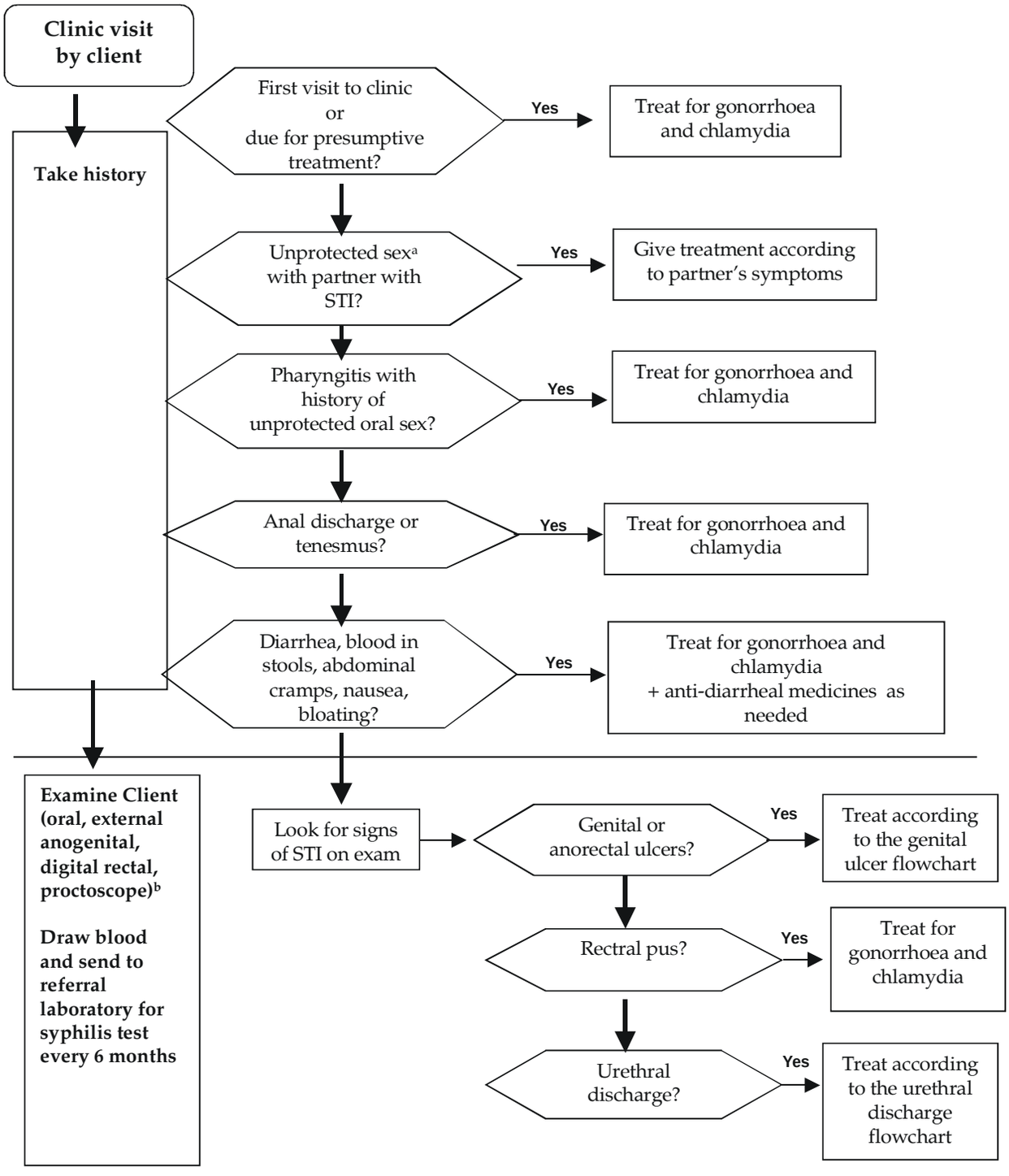
It is also important to cater for STI management needs of MSM population groups. Emergence of anal STIs is cause of concern. Service providers should be sensitive to the needs of the MSM population groups and counsel them about risk reduction, use of condoms and HIV testing.

Flowchart 6.1: Management of STIs during routine Clinic visit by Female Sex Workers



1. Without condom or condom failure
2. All currently active sex workers have positive risk assessment and should be treated for gonococcal and chlamydial cervicitis.

Flowchart 6.2: Flowchart for routine Clinics visit by Male and Transgender Sex Workers



a. Without condom or condom failure
b. All currently active sex workers have positive risk assessment and should be treated for gonococcal and chlamydial cervicitis.

7. Management of Sexual Violence

Sexual violence is defined as "any sexual act, attempt to obtain a sexual act, unwanted sexual comments or advances, or acts to traffic women's sexuality, using coercion, threats of harm or physical force, by any person regardless of relationship to the victim, in any setting, including but not limited to home and work". Often, because the victims feel uncomfortable talking about sexual violence, they may come to the clinic with other non-specific complaints or requesting a check-up, assuming that the health care provider will notice anything abnormal that needs treatment. Therefore, health care workers should maintain a high index of suspicion and ask about experience of sexual violence or abuse. The following services should be available, on-site or through referral, for clients who have experienced sexual violence:

A. Visual inspection

Before proceeding for examination consent of the victim or the legal guardian in case of minors must be taken. Counseling of the victim must be done. Examination of clothes, injuries and genital must be carried out. Look for bleeding, discharge, odour, irritation, warts and ulcerative lesions.

B. Collection of forensic evidence

Forensic examination should be available to document evidence if the person chooses to take legal action. Staff should be trained in how to take forensic specimens, or referral links should be made. Forensic examination must include physical and genital examination. (Refer to the State-specific guidelines for forensic examination).

C. Collection of samples for detecting STIs

If facilities permit, swabs must be collected from various sites for wet mount examination or culture of a number of causative organisms. Blood could be collected for VDRL/RPR, HIV and HbsAg tests.

D. Essential medical care for injuries and health problems

Medical management includes

i. Prevention of pregnancy by offering emergency contraception

ii. STI prophylaxis

iii. Care of injuries

Note: *It is important to obtain informed consent for any examination, treatment or referral in a case of a victim of sexual assault.*

Essential medical care for injuries and health problems would consist of:

- Post exposure prophylaxis against pregnancy

Emergency Contraception (EC) to prevent unwanted pregnancy should be given within 72 hrs of unprotected sexual intercourse.

Box 7.1 : Post exposure prophylaxis with Emergency contraceptives

Type of Emergency contraception	First dose (within 72 hours after unprotected intercourse)	Second dose (12 hours later)
Levonorgestrel-only pills for emergency contraception	Levonorgestrel in 2 doses First dose of 0.75 mg of levonorgestrel	Repeat same dose after 12 hrs

➢ Post exposure prophylaxis of STI

STI prophylaxis should be started as early as possible, although the doses should be spread out (and taken with food) to reduce side-effects such as nausea.

Box 7.2: Post exposure prophylaxis of STI for adults and older children and adolescents weighing more than 45 kg

1. For protection against syphilis, gonorrhea and chlamydia
   - Tab. Azithromycin 1gm orally, single dose under supervision

     PLUS
   - Tab. Cefixine 400mg orally single dose
2. For protection against T. Vaginalis
   - Tab Metronidazole 2gm single dose

     OR
   - Tab Tinidazole 2gm single dose

Box 7.3 : Post exposure prophylaxis of STI for children

1. For protection against syphilis and chlamydia
   - Erythromycin 12.5 mg/kg of body weight orally 4 times a day for 14 days
2. For protection against gonorrhea
   - Cefixime 8 mg/kg of body weight as a single dose, or
   - Ceftriaxone 125 mg by intramuscular injection
3. For protection against T. Vaginalis
   - Metronidazole 5 mg/kg of body weight orally 3 times a day for 7 days

➢ Post exposure prophylaxis of HIV

- Refer to district hospital and follow NACO guidelines for the same.

➢ Post exposure prophylaxis against Hepatitis B

- If not vaccinated earlier, it is recommended. If vaccine is not available, refer to the centre where Hepatitis B vaccination facilities are available.

An evaluation of the person's personal safety should be made by a protective services agency or shelter, if available, and arrangements made for protection if needed.

E. Psychosocial support (both at time of crisis and long-term)

Psychosocial management includes counseling and supportive services, which should be available on-site or by referral. Women or children who have been sexually abused may need shelter and legal protection. Adolescents in particular may need crisis support, as they may not be able or willing to disclose the assault to parents or care takers.

F. Follow-up services for all of the above

It is essential to explain the importance of follow-up appointments and services during the first visit itself. The woman should be clearly told whom to contact if she has other questions or subsequent physical or emotional problems related to the incident.

8. Counseling and Testing for RTIs/STIs

Effective communication of information on prevention, especially on behavior change, linked with effective treatment is a key to the control of RTIs/STIs. When clear communication is linked to effective treatment there can be additional benefits. Even when treatment is not available at outreach RCH service delivery settings, prevention information and condoms can be provided. Effective communication can be done in the following ways:

Interpersonal communication: The face- to-face process of giving and receiving information between two or more people. This involves both verbal and non-verbal communication.

- Verbal communication: The way we talk with clients, the words we use, and their meanings.

- Non-verbal communication: The way we behave with clients, including actions, behaviors, gestures and facial expressions.

Counseling: Face-to-face, personal, confidential communication in which one person helps another to make decisions and then to act on them. Good counseling has two major elements: mutual trust between client and provider and the giving and receiving of relevant, accurate and complete information that enables the client to make a decision. It requires conversational and listening skills.

Guidelines for counseling

a) Welcome your client warmly by name and introduce yourself.

b) Sit closely enough so that you can talk comfortably and privately.

c) Make eye contact and look at the client as s/he speaks.

d) Use language that the client understands.

e) Listen and take note of the client's body language (posture, facial expression, looking away, etc.). Seek to understand feelings, experiences and points of view.

f) Be encouraging. (Nod or say, "Tell me more about that.")

g) Use open-ended questions.

h) Provide relevant information.

i) Try to identify the client's real concerns.

j) Provide various options for the client.

k) Respect the client's choices.

l) Always verify that the client has understood what has been discussed by having the client repeat back the most important messages or instructions.

Barriers to good counseling

- Lack of privacy.

- Not greeting or not looking at the client.
- Appearing to be distracted (for example, by looking at your watch or reading papers while s/he is talking).
- Using a harsh tone of voice or making angry gestures.
- Sitting while the client stands or sitting far away from the client.
- Allowing interruptions during the consultation.
- Being critical, judgmental, sarcastic or rude.
- Interrupting the client.
- Making the client wait for a long time.
- Not allowing enough time for the visit.

Client counseling on RTIs/STIs: During counseling session, provider should talk about causation, transmission, recommended treatment, prevention, risk reduction, behavior change, and partner referral. Clinics can have take away information brochures in simple languages with illustrations to reinforce messages.

Goals of client education and counselling

- Primary prevention or preventing infection in uninfected clients. This is the most effective strategy to reduce the spread of RTIs/STIs and can be easily integrated into all health care settings.
- Curing the current infection.
- Secondary prevention, which prevents further transmission of that infection in the community and prevents complications and re- infection in the client.

What the client needs to know

Prevention of RTIs/STIs

- Risk reduction
- Using condoms, correctly and consistently, availability of condoms
- Limiting the number of partners
- Alternatives to penetrative sex
- Negotiating skills

Information about RTIs/STIs

- How they are spread between people
- Consequences of RTIs/STIs
- Links between RTIs/STIs and HIV
- RTI/STI Symptoms - what to look for and what symptoms mean

RTI/STI Treatment

- How to take medications
- Signs that call for a return visit to the clinic
- Importance of partner referral and treatment
- Acknowledge gender inequalities which may impact male partners coming forward to seek services

Principles of effective client education

- Shows respect and concern for the safety of clients through body language, telling clients you are concerned, being attentive to and acknowledging clients' feelings, and taking more time with them.
- Is client-centered. Provides messages that are tailored for each individual –different messages for married men, women, and adolescents.
- Involves 3 kinds of learning: through ideas, actions, and feelings (cognitive, psycho-motor, and affective).
- Uses multiple channels (eyes, ears and face-to-face/visual, auditory, interpersonal). Delivers messages via the eyes, ears, and face-to-face communication.

Integrated Counselling and Testing Centers (ICTC) and their role in STI prevention and Management

Clients with STI have shown high risk sexual behaviour. Based on this high risk behavior, the health care worker should inform the Client about the links between STIs and HIV and should encourage all Clients to undergo an HIV test as the risk of HIV among STD is upto 10 times higher. In order to get HIV test, Integrated counseling and testing centers (ICTC) have been established. Each ICTC has counselor(s) and a laboratory technician. As of November 2006, there are 3394 counseling centers and more are being established. ICTCs are located in the medical colleges, district hospitals in all states and in addition in selected CHCs and PHCs especially in the high prevalence states. It is envisaged to establish ICTCs at all CHC and additional at selected PHCs in all states.

In Integrated Counseling and Testing Centers the STI Client will receive comprehensive and accurate information on HIV/AIDS and HIV counseling to facilitate an informed choice regarding an HIV test. The integrated centers serve as single window system by pooling all Counselors and Lab

Counseling and Testing for RTIs/STIs

Technicians working in ICTC, PPTCT, Blood Safety, STI, ART/OIs and HIV - TB together to offer round the clock counseling and testing services. This common facility will remove fear, stigma and discrimination among the clients and Clients, PLHAs and the referrals.

The ICTC have common television and video based health education materials that are screened continuously in the Clients waiting area. The information related to preventive, promotive and curative health care along with information regarding HIV/AIDS, and various services provided by the hospital is provided to all the Clients.

Further two strategies are adopted in ICTC for HIV testing.

- Opt-out strategy – In this, the counselor "assumes" that the Client has come to get an HIV test (implied consent). The HIV test will be done unless the Client actively denies the test.
- Opt-in strategy – In this, the counselor specifically asks the client, whether s/he would like to undergo the HIV test. The client has to actively agree to the HIV test.

As per the National AIDS Prevention and Control Policy, all HIV tests are voluntary, based on the clients consent, accompanied by counseling and confidentiality of the results.

Aims of Pre-test counseling

- To ensure that any decision to take the test is fully informed & voluntary
- To prepare the client for any type of result, whether negative or positive or indeterminate
- To provide client risk reduction information & strategies irrespective of whether testing proceeds
- The Clients are advised about preventive measures and use of condoms.

If the Client declines to take the test, he/she leaves the ICTC. Some Clients return to the ICTC after a few days for the test. If the client agrees to undergo the test, he/she proceeds to the attached laboratory for blood collection. After the blood sample is taken, the client either waits for the results or is asked to return on assigned date with Patient Identification Digit (PID) number

The tests are performed by using the rapid test kits. If the test is negative and the client has history of high risk factors, he/she is advised to repeat the test after 3 months as he/she may be in the window period. If the result is positive the test is repeated with kits using a different method of antibody detection. The result is considered positive if all three tests are positive. Before the results are revealed to the client, post counseling is done.

Aims of Post- test counseling aims to:

- Help client understand and cope with the HIV test results
- Provide the client with any further information required
- Help Clients decide what to do about disclosing their test result to partners and others

- Help Clients reduce their risk of HIV/ AIDS and take action to prevent infection to others including condom, avoiding multiple partners and other high risk behaviour (Positive prevention.
- Help Clients access the medical and social care and support they need
- Establish link with PLHA groups, if needed

In STI settings, the following is recommended

(i) HIV testing should be recommended for all STIs Clients after pre-test counseling and informed consent. There should be guarantee for confidentiality. HIV counseling and testing can either be performed in the STI clinic (if counselor is available) or Clients can be referred to the nearest ICTC.

(ii) In some cases of STIs in the presence of HIV infection, larger doses and longer treatment duration of the drugs listed under the different STIs may be required. These Clients should be followed up regularly for longer duration.

(iii) Excessive use of anti-microbials should be avoided, as it is likely to lead to more rapid development of antibiotic resistance.

(iv) Although counseling of individual Clients on risk reduction, and prevention of STI transmission to the partners should be done in all Clients of STI, this is of vital importance for those infected with HIV.