STD SERIES
1

PROTOCOL FOR MANAGEMENT OF SEXUALLY TRANSMITTED DISEASES FOR DOCTORS

Ministry of Health
Malaysia

KEMENTERIAN KESIHATAN MALAYSIA

SERIES 1

PROTOCOL FOR MANAGEMENT OF SEXUALLY TRANSMITTED DISEASES FOR DOCTORS

AIDS/STDs Section
Ministry of Health Malaysia
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CHAPTER 1

INTRODUCTION

V.D. - Venereal Diseases historically were descriptive of sexually transmitted ailments like Syphilis and Gonorrhea. These diseases ravaged mankind during the World Wars when no cure was available. S.T.D. - Sexually Transmitted Diseases became a more respected terminology when it begin to realise a variety of microbes besides Syphilis and Gonorrhea which can be transmitted by varied forms of sexual acts via the mucous membrane or breach in the skin. Increasing importance has been given to this subject because STD viruses like HIV can kill. sex is an excellent vehicle for the HIV virus and hence this communicable disease can be called the "ping-pong infection" The presence of other associated problems in the genital region has resulted in the emergence of a new speciality in S.T.D. known as Genito-Urinary Medicine responsible for running the G.U.M. clinics in U.K. Today physicians in the G.U.M. clinics in the U.K. are grappling with the problems of AIDS and HIV pandemics. One could say AIDS has given importance to a subject which has been grossly neglected because of taboos and prejudices.

Common well-known STD's

Bacteria	• Syphilis • Gonorrhea	• Chancroid • Granuloma Inguinale
Chlamydia	• Non-specific urethritis • Lymphogranuloma venereum	
Viruses	• AIDS and HIV disease • Herpes Genitalis • Hepatitis B	• Genital Viral warts • Molluscum Contagiosu
Fungi	• Candida	• Tinea Cruris

Protozoa	• Trichomonas Vaginalis	
Ectoparasites	• Scabies	• Pubic Louse

Principles of Management in STD's.

As there is a wide variety of sexually transmitted infections and infestations there is no place for chemoprophylaxis in STD. Being a disease with an obnoxious social stigma we need to take positive but not punitive steps to encourage patients and contacts to come forward for treatment to prevent transmission of STD.

The following guidelines and principles are of immense importance in the fight against STD:

- Identification of infectious agent by laboratory tests for appropriate treatment and medico-legal reasons.
- Proper collection and handling of specimens.
- Accurate interpretation of laboratory data.
- Highly effective and well supervised therapy.
- Treatment rendered as early as possible.
- Ensure compliance of therapy by patients.
- Case holding and tests of cure.
- No place for blind therapy and chemoprophylaxis.
- Epidemiological treatment may be considered to prevent transmission and re-infection.
- Careful, judicious notification, contact tracing and counselling to encourage patients to come forward for advice and treatment.
- Prevent child abuse
- Safe sex and safe-life style may be the only measures available.
- Screening for other common STD's.

Common Presenting Symptoms and Signs

Sexually transmitted ailments commonly present as genital ulcers, urethral or vaginal discharges. However, with blood dissemination, generalised skin rashes, constitutional symptoms and signs pertaining to the other organ systems as in HIV infection are not uncommon. Before labelling a disease as STD especially in the genital region one should exclude other dematoses, tumours and other causes of ulcers and discharges.

Treatment and management

In the early days with the advent of discovery of antibiotics bacterial infections like syphilis and gonorrhea were easily managed. However, with the viral infections like HIV and Herpes as important STD's, where there are no effective anti-viral drugs or vaccines, the strategy for the control of sexually transmitted diseases has to be changed. Changes in life-style and safe sex appear to be the only way to combat diseases like HIV. The emergence of this killer disease has however resulted in reduction of the other STD's. The final advice would be to have sex with a single faithful partner and have it avoided with high risk groups, who should also refrain from activities that could be dangerous. All this involves a change in cultural pattern attitudes and of vulnerable groups especially the adolescents who are drop-outs or lack moral fibre to face life within a healthy life-style.

Principles of Management of STD

- Identification of Infectious agent by laboratory tests for medico-legal reasons
- Tests of Cure Proper collection and handling of specimens
- Accurate interpretation of laboratory data
- Treatment rendered as early as possible to prevent transmission and complications
- Supervised and highly effective therapy
- Ensure patient's compliance
- Screening for other STD
- Contact tracing
- Child abuse
- Counselling
- Blind therapy and prophylaxis avoided
- Epidemiological therapy
- Notifiable Infectious Diseases

HIV infections - AIDS

- AIDS or HIV patients are best managed in close consultation with physicians
- All person should avoid contact with high risk groups and persons with HIV or suspected HIV
- Casual contact does not result in transmission of infection
- All patients with HIV infection and high risk groups should not donate blood, semen, organs etc.

- Counselling of all persons to minimise risk of acquiring or transmitting infection
- Sexually promiscous use condoms

Patients positive with ELISA Repeat ELISA and confirm by Western blot technique

CHAPTER 2

SYPHILIS

Causative organism : Treponema Pallidum

2.1 Primary Syiphils

Incubation Period : 10-90 days

Presentation : Usually single, non-tender, sharply demarcated, circumscribed ulcer with indurated clean base. Local lymph nodes enlarged, discrete, rubbery, non-tender. May be nonclassical Syphilis. Should be excluded in any genital ulcers.

Diagnosis :

1. Dark ground examination - repeat daily for at least 3 days if negative
2. DFA - TP
3. S.VDRL. If negative, repeat at 1 week, 1 month and 3 months
4. FTA - abs
5. TPHA - becomes positive late

Treatment :

Recommended Regimen
Procaine Penicillin G 600,000 units IM daily for 10 days or Benzathine Penicillin 2.4 million units IM weekly for 2 weeks

If allergic to penicillin
Doxycycline 100mg oral TID for 21 days or
Tetracycline 500mg oral 6 hourly for 21 days or
Erthromycin 500mg oral 6 hourly for 21 days

Contact : Examine and investigate sex partner and treat

Tracing		epidemiologically
Follow-up	:	S.VDRL titre at 1,3,6,12,18,24 months

2.2 Secondary Syphilis

Incubation Period : 6-8 weeks after chancre appeared

Presentation : Variable (± constitutional disturbances)
Rashes - most common presentation ranging from macular (roseolar), maculopapular, papular, papulo-squamous to corymbose. Usually symmetrically distributed. Palms and soles commonly affected. Condylomata lata in moist areas. Mucous Patches - genitals, mouth, pharynx, larynx

Hair - "moth eaten" alopecia

Lymphadenitis: generalised, rubbery, discrete, non-tender

Diagnosis : S.VDRL

TPHA

FTA - abs

Dark ground from moist lesion

Treatment : **Recommended Regimen**
Procaine Penicillin G 600,000 units IM daily for 10 days or Benzathine Penicillin 2.4 million units IM weekly for 2 weeks

If allergic to penicillin
Doxycycline 100mg oral TID for 21 days or Tetracycline 500mg oral 6 hourly for 21 days or Erthromycin 500mg oral 6 hourly for 21 days

Contact Tracing : Examine and investigate sex partner and treat epidemiologically

Follow-up : S.VDRL titre at 1,3,6,12,18,24 months

2.3 Early Latent Syphilis

Syphilis infection of less than 2 years' duration

Positive serology without symptoms and signs

Usually detected by screening (STD, ANC, blood donors) or contact tracing

Treatment, Contact Tracing and Follow-up - As for Primary Syphilis

2.4 Late Latent Syphilis

Syphilis infection of more than 2 years' duration

Positive serology without symptoms and signs

Usually detected by screening or contact tracing

Investigations : Should ideally include LP (to exclude asymptomatic neurosyphilis)

CXR is indicated
If LP not performed, should treat as for neuro syphilis.

Treatment : Procaine penicillin 600,00 units IM daily for 14 days

Alternative treatment
Benzathine penicillin 2.4 million units IM weekly for 3 weeks

If allergic to penicillin
Doxycycline 100mg tds for 30 days or Tetracycline

500mg oral 6 hourly for 30 days or Erythromycin 500mg oral 6 hourly for 30 days

Contact Tracing : Examine and investigate sex partner and treat if indicated

Follow-Up : S VDRL titre 6 monthly for first 2 years after treatment and thereafter annually until sero-negative or stable at low titre

2.5 Gummas, Cardiovascular Syphilis

LP mandatory

Treatment : As for Late Latent Syphilis

Some also treat cardiovascular syphilis with a neurosyphilis regimen

Plus other treatments as clinically indicated

2.6 Neurosyphilis/Syphilis for HIV + ve Patients

In-patient
Aqueous crystalline penicillin G 2 mega units 6 hourly for 21 days,
(oral probenecid 500mg QID x 17 days).

On Discharge
Aqueous procaine penicillin 1.8 million units IM daily } } for 17 days
*Plus }
Probenecid 500mg oral qid }

Penicillin Allergic Patient
Doxycycline 100mg tds for 30 days
or

Tetracycline 500mg oral 6 hourly for 30 days
* Plus other treatments as clinically indicated

Follow-up
S.VDRL titre
Repeat LP 6 months after treatment, and whenever S.VDRL titre increases

2.7 SYPHILIS IN PREGNANCY

Recommended treatment
Penicillin regimen appropriate for the womans' stage of syphilis

Alternative treatment
Erythromycin - but high risk of failure to cure infection in infants

- all infants should be treated at birth.

* Tetracycline and Doxycycline C/I in pregnancy

Follow-up as for stage of infection
Monthly follow-up till delivery mandatory & thereafter same as non-pregnant patient

Subsequent pregnancy
Rx depends on infectivity rate of mother

Congenital Syphilis
Infants born to mother with syphilis:
Investigations should include

1. S. VDRL titre
2. Lumbar puncture for CSF cell count, protein + VDRL
3. Serum FTA-Abs 19S - 1gm - if available
4. ± XR long bones and other investigations as clinically indicated

Infants should be treated if they have

1. Any evidence of active disease; or

2. A reactive CSF-VDRL; or
3. An abnormal CSF finding (wcc> 5/mm 3, or protien > 50 mg /dl) irrespective of CSF serology; or
4. S.VDRL titre fourfold (or greater) higher than their mothers; or
5. positive FTA-Abs 19S -1gm Ab; or
6. a mother who has

    i. untreated syphilis; or
    ii. inadequately treated syphilis; or
    iii. treatment unknown; or
    iv. treatment with Erythromycin; or
    v. treatment less than 1 month before delivery; or

7. Follow-up cannot be ensured

Treatment Regime
Symptomatic /Asymptomatic with abnormal CSF

1. Aqueous crystalline penicillin G 50,000 UNITS/kg IV or IM 8 - 12 hourly x 10 days
2. Aqueous procaine penicillin 50,000 units/kg IM daily x 10 days

* Plus other treatments as clinically indicated

Asymptomatic with normal CSF
Benzathine penicillin 50,000 units/kg IM single dose
Congenital syphilis in older infants and children
Aqueous crystalline penicillin 200,00-300,000 units/kg/day in divided doses for 10-17 days

* Plus other treatments as clinically indicated.

Follow-up

Sero-positive untreated infants

Repeat S VDRL titre at 1,2,3,6,and 12 months

Treat i) if S VDRL titre > 4 fold increase by 3 months of age

ii) if S VDRL still positive by 6 months of age

* LP before treatment

Treated infants

Repeat i) S. VDRL titre at 1,2,3,6,12,18 and 24 months

ii) LP 6 months after treatment (if initial CSF abnormal)

2.8 Jarish-Herxheimer Reaction (Syphilis)

In Early Syphilis : Minimise with Paracetamol

In Cardiovascular) : Minimise with Prednisolone 10mg tds for 3 days
neurosyphilis)
certain cases of
Benign)
Tertiary syphilis)
Late latent syphilis

Re-Treatment should be considered when:

a. Clinical signs or symptoms of active syphilis persist or recur as a result of inadequate treatment or re-infection
b. There is a sustained fourfold rise in the titre of VDRL

An initially titre of VDRL fails to decrease fourfold within a year? If > 1.16 to retreat.

SYPHILIS

Incubation Period	:	6-8 weeks after chancre appeared

CHAPTER 3

GONORRHOEA

Causative organism : Neisseria gonorrhoea

Incubation period : 1 - 4 days, usually 2-5 days

Presentation : Urethral discharge, often purulent, dysuria ± frequency

Diagnosis :

1) Urethral smear: gram negative intra-cellular, diplococci seen, pus cells ++

2) Culture on modified Thayer Martin culture medium or Stuarts/Amies transport medium (to confirm diagnosis and establish sensitivities)

Treatment :

1) Ceftriaxone 250 mg IM stat or

2) Spectinomycin 2 gm IM stat or

3) Cefotaxime I gm IM stat plus probenicid I gm oral stat or

4) Cefuroxime 1.5 gm IM stat plus probenicid I mg oral stat or

5) Norfloxacin 800 mg oral stat or

6) Ciprofloxacin 500 mg oral stat plus treatment in view of high prevalence of nonspecific urethritis

1. Doxycycline
2. OTC
3. Erythromycin

Advice : No sex, no alcohol

Contact Tracing : Examine and investigate sex partner and treat epidemiologically

Follow-up : 1/52 - 2GT, urethral smear & culture
- 2GT, urethral smear & culture to detect PGU

2/52 - 2GT, urethral smear
- STS

3.1 Post Gonococcal Urethritis

Diagnosis : If 7 days or more after treatment of gonorrhoea
2GT: 1 st glass threads
2nd glass clear
U/smear for GC: Negative
PC > 5/hpf

Treatment : As for non-specific urethritis (NSU)

Contact Tracing : Examine and investigate sex partner and treat epidemiologically

3.2 Gonococcal Endocervicitis and Urethritis

Presentation : Asymptomatic (50% - 75%)
Increased vaginal discharge, Dysuria

Findings :
1. Normal: or
2. May show purulent or mucopurulent discharge from endocervix, which appears yellow or green when viewed on a white cotton tipped swab
3. Erythema, odema and contact bleeding of cervix
4. Occasionally purulent or mucoid

exudate may be expressed from urethra

Diagnosis : Relied on endocervical and urethra culture on modified Thayer Martin culture medium

Endocervical) Urethral) smear: (sensitivity 50-70%) Gram negative intracellular diplococci

Treatment : As for Gonococcal Urethritis in male

Contact Tracing Examine and investigate sex partner and treat epidemiologically

Follow-up : 1/52 days - endocervical and urethral smear and culture 2/52 days - endocervical and urethral smear and culture 3 months - STS

3.3 Rectal Gonorrhoea Treatment

Treatment : As for Gonococcal Urethritis Endocervicitis

3.4 Pharyngeal Gonorrhoea

Ceftriaxone 250 mg IM single dose

3.5 Gonococcal Epididymitis/Epididymo-orchitis

i. Ceftriaxone 500mg IM once daily for 5-7 days
   or Spectinomycin 2mg IM once daily for 5-7 days
   plus
ii. Doxycycline 100mg oral bd for 14 days
   or
iii. Erythromycin 500mg oral 6 hourly for 14 days
iv. Analgesia
v. Scrotal support

3.6 Disseminated Gonorrhoea

Hospitalise patient

Ceftriaxone 1 gm IM or IV once daily for 7 days

or

Cefotaxime 1 gm IV 8 hourly for 7 days

or

Spectinomycin 2 gm IM 12 hourly for 7 days

If mild

May be discharged 24 to 48 hours after all symptoms resolve To complete therapy (for a total of 1 week) with

Ciprofloxacin 500mg oral bd

or

Cefuroxime axetil 500mg bd

Children Less Than 45 kg b.w.

Uncomplicated vulvo-vaginitis, urethritis, proctitis

Ceftriaxone 125 mg IM once

or

Spectinomycin 40 mg/kg IM once

CHAPTER 4

CHLAMYDIAL/ "NON-SPECIFIC" URETHRITIS (NSU)

Presentation : Urethral discharge worse in the morning- Dysuria ltching or irritation in the urethra, May be asymptomatic

Incubation period : 1-3 weeks

Findings : Urethral discharge varies from scanty to moderate. May be clear, mucoid, white, grey or yellow. Occasionally no obvious discharge but meatus moist or sticky

Diagnosis :

i. 2 glass urine test (Record hours since last passedurine) 1st glass: Haze, threads or specks 2nd glass: Clear
ii. Urethral smear: No gonococci found. Pus cells > 5/hpf
iii. GC Culture should be negative
iv. Chlamydial Culture or
v. Direct immuno fluorescent Ab smear (eg Microtrak)

Treatment : 1) Doxycycline 100mg oral bd for 7-14 days

or

2) Tetracycline 500mg oral 6 hourly for 7-14 days (Avoid dairy products, oral iron and antacids)

or

3) Erythromycin 500mg oral 6 hourly for 7-14 days Give one week initially and return for check on drug compliance and culture results

Advice : No sex until pronounced cure, No alcohol. Hold urine for at least 4 hours (Overnight if possible) prior to next visit

Contract Tracing : Examine and investigate sex partner, and treat epidemiologically

Follow-up : 1 week - Culture results are checked 2 GT
Urethral smear for GC and pus cells
Second week treatment of Doxycycline or Tetracycline given if indicated

2 week - 2GT & urethral smear - 2GT & urethral smear

3 week - STS

CHAPTER 5

CHLAMYDIAL/ "NON-SPECIFIC" GENITAL INFECTION IN WOMEN (NSG1)

Presentation : Usually asymptomatic-patients seen as contacts of men with NSU

Findings : Normal, or Mucopurulent cervicitis ie mucopurulent discharge from endocervix, which appears yellow or green when viewed on a white cotton-tipped swab. Erythema, odema, and contact bleeding of cervix

Diagnosis : Chlamydia culture or Direct smear fluorescent Ab test (eg. Microtrak) from endocervix

Culture and smear for GC should be negative

Treatment : Doxycyline 100mg oral bd for 7-14 days

or

Tetracycline 500mg oral 6 hourly for 7-14 days

(Avoid dairy product, oral iron and antacids)

or

Erythromycin 500mg oral 6 hourly for 7-14 days

* Tetracycline and Doxycline are contraindicated in pregnancy

Contract Tracing : Examine and investigate sex partner, and treat epidemiologically

CHAPTER 6

PELVIC INFLAMMATORY DISEASE (PID)

Presentation : Lower Abdominal Pain

± deep dyspareunia
± increased vaginal discharge
± abnormal menses
± intermenstrual bleeding

Findings : Adnexal tenderness/mass (Unilateral or bilateral)
Tenderness on movement of cervix. Cervicitis (variable)
Raised temperature
Raised ESR

Treatment : Acute Cases

i) Ceftriaxone 1 gm IM once daily

or

Cefotaxime 500mg IV 6 hourly plus

ii) Doxycycline 100mg oral or IV 12 hourly until improved (and at least 4 days) followed by Doxycycline 100mg oral bd for a total of 14 days

Ambulatory Cases
Ceftriaxone 250mg IM stat plus
Doxycycline 100mg oral bd for 14 days plus
Metronidazole 400mg oral tds for 7-10 days
Review in 72 hours-admit for parenteral therapy if not better Remove IUCD soon after treatment has been initiated

Contract Tracing : Examine and investigate sex partner, and treat epidemiologically

CHAPTER 7

OPHTHALMIA NEONATORUM

Conjunctivitis in the 1st 3 week of like

7.1 Bacteria (other than Gonococcal)

Treatment : **Local**: Neomycin eye ointment 0.5% after feeds both eyes (Change according to sensitivity: duration according to response)

*7.2 Gonococcal**

Treatment : **Systematic**: Ceftriaxone 50mg/kg (max 125mg) IV or IM once daily for 3-7 days
or
Cefotaxime 50mg/kg/day IV or IM in divided doses for 3-7 days

Local: Sulphacetamide (Albucid) eye drop 30%
or
Gentamycin eye drop 0.3% Flood eye. 4xday after feeds for 3-7 days

*7.3 Chlamydial**

Treatment : **Systematic**: Erythromycin 50mg/kg/day oral 6 hourly for 14 days

Local: Tetracycline ointment 1% 6 hourly for 7-14 days

- Systemic treatment is essential . Local treatment may be unnecessary if systemic treatment is given.
- Examine and investigate parents, and treat epidemiologically in Gonococcal and Chlamydial Ophthalmia Neonatorum
- Ophthalmologic assessment for ocular complications

Gonococcal Conjuncavitis in Adults

1. Ceftriaxone 1 gm IM once daily for I -3 days
   or
   spectinomycin 2 gm IM bd for 3 days

Chlamydial Conjunchvins in Adults

1. Doxycycline 100mg oral bd for 1 week
   or
   Tetracycline 500mg oral 6 hourly for I week
   or
   Erythromycin 500mg oral 6 hourly for 1 week
   * Ophthalmologic assessment for ocular complications

CHAPTER 8

GENITAL HERPES

Causative organisms Herpes Simplex Virus Type I or II

Incubation period : 2-5 days

Presentation : Multiple vesicular lesions with progress to painful ulcers. Primary attack usually most severe - tends to recur

Diagnosis :

1. Direct IF or IP test for HSV Ag
2. Tissue Culture
3. Serology
   Paired sera, taken 2 weeks apart, fourfold rise in antibody titre or seroconversion useful only during 1st attack
4. Tzanck test for multinucleated giant cells
5. Pap smear for multinucleated giant cells or cells with intranuclear inclusions

* Dark ground of ulcerated lesion to exclude syphilis

* S. VDRL (Repeat)

Treatment : ***1st Clinical Episode of Genital Herpes***

i) **If moderately severe to severe**

1. Acyclovir 200mg 5 times daily (at 4 hourly interval) for 5 days Start within 1st 3 days of onset of lesions

2. Saline size bath or wash
3. Analgesic
4. Co-trimoxazole for secondary bacterial infection

ii) **If mild**

As for mild recurrent infection

Recurrent Infection

i) If mild

Saline wash

± Analgesic

± Cotrimoxazole for secondary bacterial infection

ii) If severe, and frequent recurrent **episodes (> 8 x/year) - consider** Continuous daily suppressive therapy with acyclovir 200mg oral 4 times daily and titrate (QDS - - BD) till the lowest superresive dose for 9 months. (Therapy must be discussed with consultant)

Follow-up : Weekly until ulcers are healed

Counselling :

1. Transmissibility to sexual partners - No sex from prodromal stage
2. Recognition of recurrences and way to

handle them

3. Encourage the use of condom during all sexual exposures
4. Neonatal transmission and it's complication: to tell them to inform their obstetrician of past history of genital herpes inection

Caesarean section may be indicated if active herpes lesions present at time of delivery depending on the activity of the disease.

CHAPTER 9

GENITAL WARTS (CONDYLOMATA ACUMINATA)

Causative organisms Human papilloma virus

Incubation period : 2-8 months

Presentation : Usually noticed by patient

Present as single or multiple soft, fleshly papillary or sessile painless growths around the ano-rectal, vulvo-vaginal area, penis, terminal urehtra or perineum

Diagnosis : Usually readily made clinically cervical. Cervical cytology smear for women Histology if indicated

Treatment : **External Genital/Perianal Warts**

Podophyllin 10-25% in compound tincture of Benzoin
or
Cryotherapy with liquid nitrogen
or
Trichloroacetic acid
or
Electrocautery

Vaginal Warts

Cryotherapy with liquid nitrogen
or
Podophyllin 10% in compound tincture of Benzoin

or
Electrocautery

Cervical Warts

Cryotherapy or	}	
Electrocautery or	}	refer for colposcopy if available
laser therapy	}	

Podophyllin is contra indicated

Meatal Warts

1. Cryotherapy with liquid nitrogen or
2. Cautery
3. TCA

Intraurethral Warts

Refer Urology

1. 5FU
2. Podo
3. TLA

Anal Warts

Cryotheraphy with liquid nitrogen

or

podophyllin 10% in compound tincture of Benzoin

or

Podophyllotoxin

or

Surgical removal by scissor excision

Oral Warts

Cryotherapy with liquid nitrogen

or

Electrocautery

Follow-up : Weekly until ulcers are healed

Counselling :

1. Transmissibility to sexual partners - No sex from prodromal stage
2. Recognition of recurrences and way to handle them
3. Encourage the use of condom during all sexual exposures
4. Neonatal transmission and it's complication: to tell them to inform their obstetrician of past history of genital

herpes inection

Caesarean section may be indicated if active herpes lesions present at time of delivery depending on the activity of the disease.

Special Precautions with Podophyllin

- Use 10-25% Podophyllin in compound tincture of Benzoin (10% Podophyllin in compound tincture of Benzoin for vaginal and anal warts)
- Apply carefully to the warts while avoiding surrounding normal tissue
- Allow treated area to dry before contact with normal tissue of mucosa, especially in anal warts for vaginal warts, treated area must be dry before removing speculum
- Instruct patient to wash it off thoroughly in 4-5 hours
- Use < 0.5 ml per treatment session
- Treat < 10 cm^2 per session in vaginal warts
- Treat twice per week
- If poor response after 4 - 6 weeks of treatment, alternative treatments are indicated.
- Podophyllin is contraindicated in pregnancy (anti-mitotic effect) and cervical warts
- Advise patients to use condoms
- Yearly pap smear for women with anogenital warts
- Atypical or persistent warts should be biopsied

Contact Tracing : Examine sex partner and investigate for other STD.

CHAPTER 10

TRICHOMONIASIS

Aetiology	:	Trichomonas Vaginalis
Incubation period	:	4 days to 4 weeks
Presentation	:	Profuse, foul smelling, vaginal discharge, may be itchy ± dyspareunia, ± dysuria, may be asymptomatic
Findings	:	vulvitis, vaginitis "strawberry" cervix - puncture erythema profuse frothy greenish-yellow discharge
Diagnosis	:	Saline wet mount-oval or pear shape organism with characteristic jerky movement Pap Smear Culture * Check for other STD especially Gonorrhoea as these two infection commonly co-exist
Treatment	:	Metronidazole 400mg oral bd for 5 days or Metronidazole 2gm oral single dose * Metronidazole is contra indicated in the first trimester of pregnancy

Advice		No sex No alcohol (Antabuse effect)
Contact Tracing		Examine and investigate and treat male sex partner epidermiologically
Follow-up	:	7-10 days Repeat wet film & culture

10.1 Trichomoniasis (Male)

Presentation	:	Commonly asymptomatic - Patients seen as contacts of women with proven infection If symptomatic usually present as NGU
Treatment	:	Metronidazole 200mg tds for 7 days or Metronidazole 2 gm stat
Advice	:	No sex No alcohol (Antabuse effect)

CHAPTER 11

CANDIDIASIS

Aetiology : Candida Albicans and other yeasts

Presentation : Itchy Vaginal discharge, often thick, white " cheesy", may be worse before menses
Pruritis vulvae
± Dyspareunia

Findings : vulvitis, vaginitis
Thick, white"cheesy" discharge

Diagnosis : Gram Stain
Culture on Sabouraud's medium

Treatment :

A. Clotrimazole vaginal pesarry 200mg, nocte for 3 nights or
Clotrimazole pessary 100mg, one nocte for 6 nights
or
Clotrimazole pessary 500mg as one single dose
or
Nystatin pessary one nocte for 2 weeks
or
Miconazole pessary 100mg one nocte for 7 nights plus

B. Clotrimazole cream LA bd for 1-2 weeks

or

Nystatin cream LA bd for 1-2 weeks

Follow-up : At 7 or 14 days (when treatment is completed) Repeat vaginal smear and swab for candida

11.1 Candidiasis

Presentation : Penile irritation /burning balanoposthistis as contact of infected female

Treatment : Saline wash

Clotrimazole cream LA bd for 7-14 days

or

Nystatin cream LA bd for 7-14 days

Follow-up : Examine, investigate and treat female sex partner. Rule out Diabetes Mellitus

CHAPTER 12

BACTERIAL / ANAEROBIC VAGINOSIS

Aetiology : Gardnerella Vaginalis amongst Anaerobic bacteria

Presentation : Increased vaginal discharge, malodorous (fishy)

Findings : Fishy smelling, thin, homogenous, greyish white, uniformly adherent vaginal discharge. Inflammation of the vaginal walls is usually absent

Odour is worse after sexual intercourse 3 out of 4 criteria for diagnosis

Diagnosis : 1) Charateristic vaginal discharge

2) Wet prep or gram stain - "clue cells"

3) Amine Test (add KOH)

4) Vaginal PH more than 4.5

Treatment : *Recommended Regimen*
Metronidazole 400mg oral bd for 5 days
or
Metronidazole 2gm oral single dose

Alternative treatment
Ampicillin 500mg oral 6 hourly for 7 days
or
Clindamycin 300mg oral bd for 7 days

* Metronidazole is contra indicated in the 1st trimester or pregnancy
1 Local pressure
2 Ampi/Amoxycillin /cotrimoxalole
* Treatment of male contact is controversial

CHAPTER 13

CHANCROID

Causative organism	:	Haemophilus Ducreyi
Incubation Period	:	1-14 days
Clinically	:	Start as papules or pustules which soon break down to form painful, shallow, non indurated, cirumscribed ulcers with under mined edge and greyish or yellowish base, surrounded by a narrow erythematous halo. Ulcers often multiple, tender to touch and bleeds easily. Inguinal adenitis follows the primary lesion within a few days to 3 weeks. Usually unilateral, tender, matted, may suppurate to form unilocular abscesses (buboes) -sinus formation an chancroidal ulceration.
Diagnosis	:	Gram stain or giemsa stain - Gram negative bacilli arranged in short, parallel chain producing the"school of fish" or "railway track" picture Low sensitivity and specificity culture - difficult . On selective medium of enriched chocolate agar Dark ground, STS to exclude syphilis Tissue culture to exclude herpes

Treatment : *Recommended Regimen*

1. Ceftriaxone 250mg IM single dose
2. Trimethoprim/ Sulfamethoxazole 80/ 400mg (Bactrim) 2 tab orally bd for 7- 14 days

   or

Alternative treatment

1. Erythromycin 500mg orally 6 hourly for 7-14 days or
2. Streptomycin I gm IM daily for 7-14 days or
3. Ciprofloxacin 500mg orally bd for 3 days In general, treatment should be continued until healing is well advanced or complete Fluctuant Bubo should be aspirated through healthy adjacent normal skin Incision of bubo is contra indicated as severe ulceration resistant to treatment may ensue

Contact Tracing : Examine and investigate sex partner and treat epidemiologically

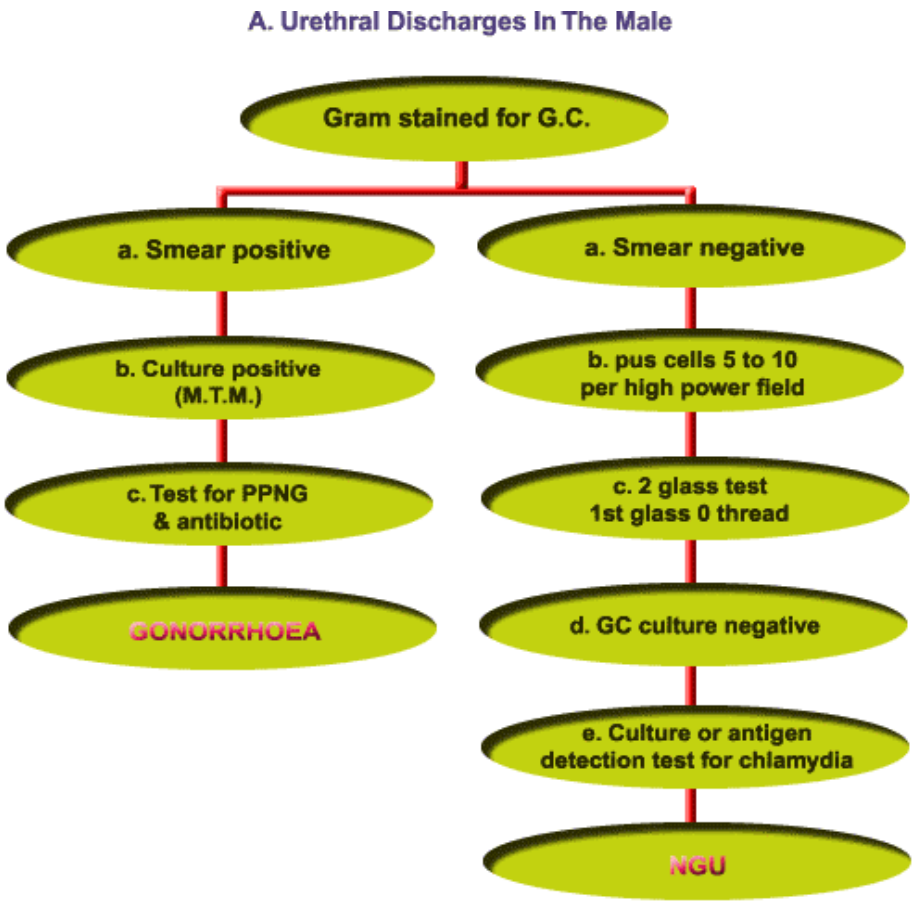
CHAPTER 14

LYMPHOGRANULOMA VENEREUM

Causative organism	:	Chlamydia trachomatis serotypes L1.2.3.
Incubation Period	:	8-80 days
Presentation	:	Small painless, usually single, transient ulcer followed 1-4 weeks later by regional adenitis, which is the most common clinical presentation. Usually multiple nodes affected (" sign of groove" in the inguinal area) . May suppurate - multiple sinuses and fistulae. May be associated with constitutional disturbances
Diagnosis	:	Micro IF for LGV serotypes Culture
Treatment	:	Treatment Tetracycline 500mg oral 6 hourly for 2-3 weeks or Doxycycline 100mg oral bd for 2-3 weeks or Erythromycin 500mg oral 6 hourly for 2-3 weeks (Final duration depending on clinical response) Fluctuant lymph nodes should be aspirated through healthy adjacent normal skin. Incision and drainage or excision of nodes will delay healing and are contraindicated

APPENDIX 1

CLINICAL APPROACHES FOR THE DIAGNOSIS OF STD/AIDS FOR USE IN HOSPITALS AND IN THE PERIPHERY



APPENDIX II

VAGINAL DISCHARGE

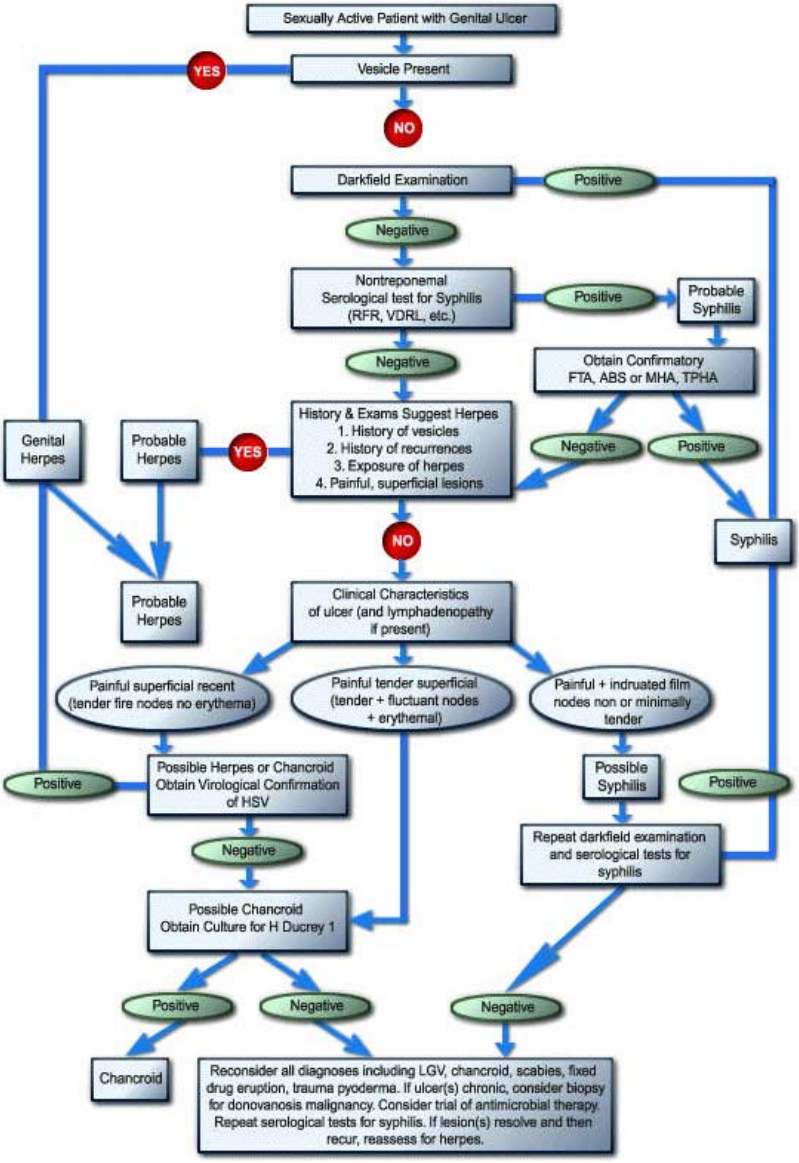
Swab from 3 areas: -

1. **Vaginal - gram stained smear (for candida/"Clue cells")**
   wet film for trichomonas culture for candida
   - pH] if bacterial
   - Amine test] vaginosis suspected
2. **Endocervical swab**
3. **Rectal swab**
4. **Urethral swab**

Vag Smear + thrust	**Wet Film +**	**"Clue cells" pH >4.5 +**	**a) Gram stained positive for GC**	**a) Gram stained negative for GC**
Candida	**TV**	**Bacterial Vaginosis**	**b) Culture for GC positive**	**b) History of contact with male N.S.U.**
			[Repeat (a) & (b) x 3] (Where necessary)	**c) Chlamydia culture (if available)**
			G.C.	**d) Exclusion of other diseases eg. Candida and Trichomonas**
				N.G.U.

APPENDIX III

GENITAL ULCER ADENOPATHY SYNDROME



Algorithm for the management of sexually active genital ulcer inguinal adenopathy syndromes. Confirmation of probable herpes is desirable. If the confirmation test for herpes is negative, or if the culture is negative, reevaluate the diagnosis, repeat serological test for syphilis in 3 to 4 weeks, consider fixed drug eruption if there is history of recurrent lesions at the same time and rule out herpes at the next recurrence. While awaiting the ITA-ABS test results, most clinicians would initiate syphilis therapy for patients having darkfield negative, RPR-positive ulcers which resemble chancres.

APPENDIX IV

MANAGEMENT OF GENITAL ULCER DISEASE - NO LABORATORY FACILITIES