

STD

Case management

Fast & Effective way to Treat

Sexually transmitted diseases (STDs) are common and potentially serious health risks. Early and effective treatment of STDs is an integral component for its control. This also helps the prevention of HIV transmission. Though there are different causative agents, STDs often present with defined sets of similar signs and symptoms – syndrome. This leaflet provides reference for using a syndromic approach for managing STDs in a prompt and effective manner.



Social Hygiene Service & AIDS Unit
Department of Health
March 2002

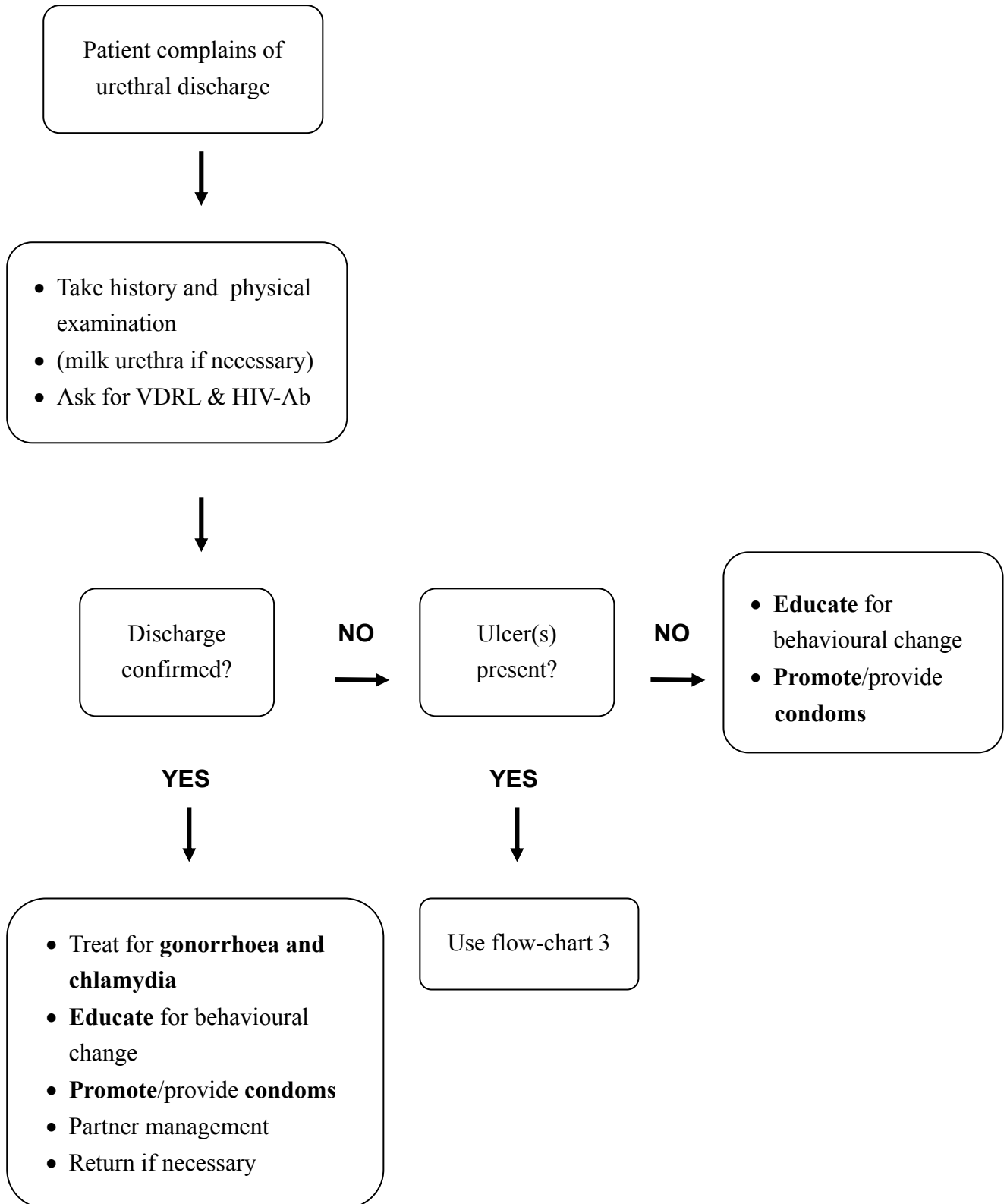
The content is adapted and modified from
the World Health Organisation, Regional Office for the Western Pacific

General Principles of Management of Patients with STD

- Establish the diagnosis or syndrome by history (including behavioural risk assessment), physical examination and screen for other possible STDs (multiple concomitant STDs are common).
- Routine screening and counselling even in asymptomatic patients (in particular female patients) is necessary.
- Prompt, simple and standardised treatment (preferably single dose).
- Contact tracing by patient referral.
- Routine screening for contacts.
- Epidemiologic treatment to contacts.
- Health education on safer sex: monogamous relationship, proper and consistent condom use, prompt and routine medical consultation after unsafe exposure.
- Secure follow-up for test of cure.
- Secure follow-up for re-test for VDRL and HIV serology at 90 days.

Flow-chart for Urethral Discharge Syndrome in Men

(flow-chart 1)



Flow-chart for Vaginal Discharge Syndrome (flow-chart 2)

Patient complains of vaginal discharge



Risk assessment:

- Complaint of lower abdominal pain or
- Partner has symptoms or
- Risk factor positive
- Partner has risk factor

NO



- Treat for **vaginitis**
- **Educate** for behavioural change
- **Promote/provide condoms**

YES



- Abdominal pain or
- Presence of guarding or rebound
- Missed period, or
- Recent delivery or vaginal bleeding

NO



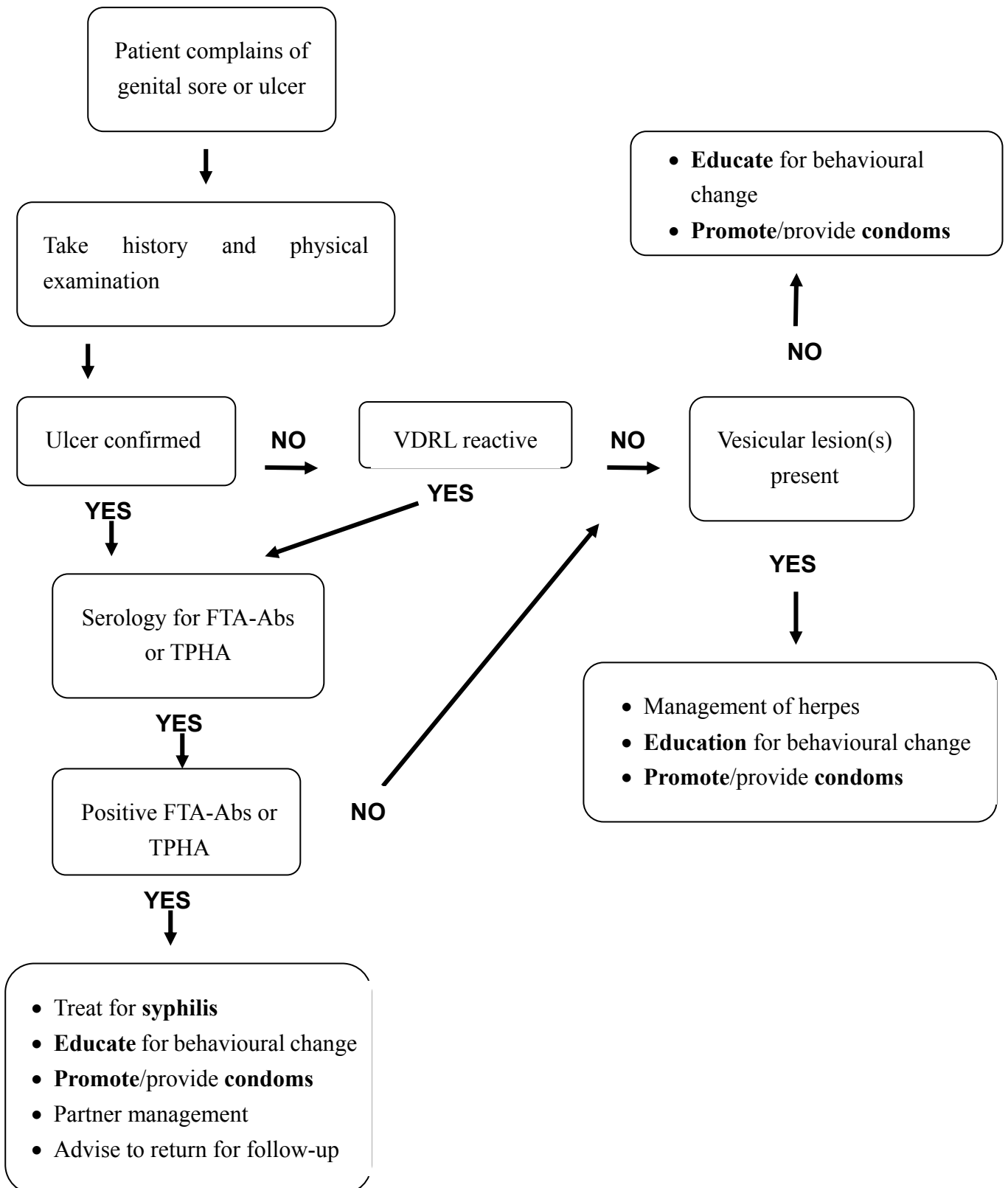
- Treat for **cervicitis and vaginitis**
- **Educate** for behavioural change
- Ask for VDRL & HIV-Ab testing
- **Promote/provide condoms**
- Partner management

YES



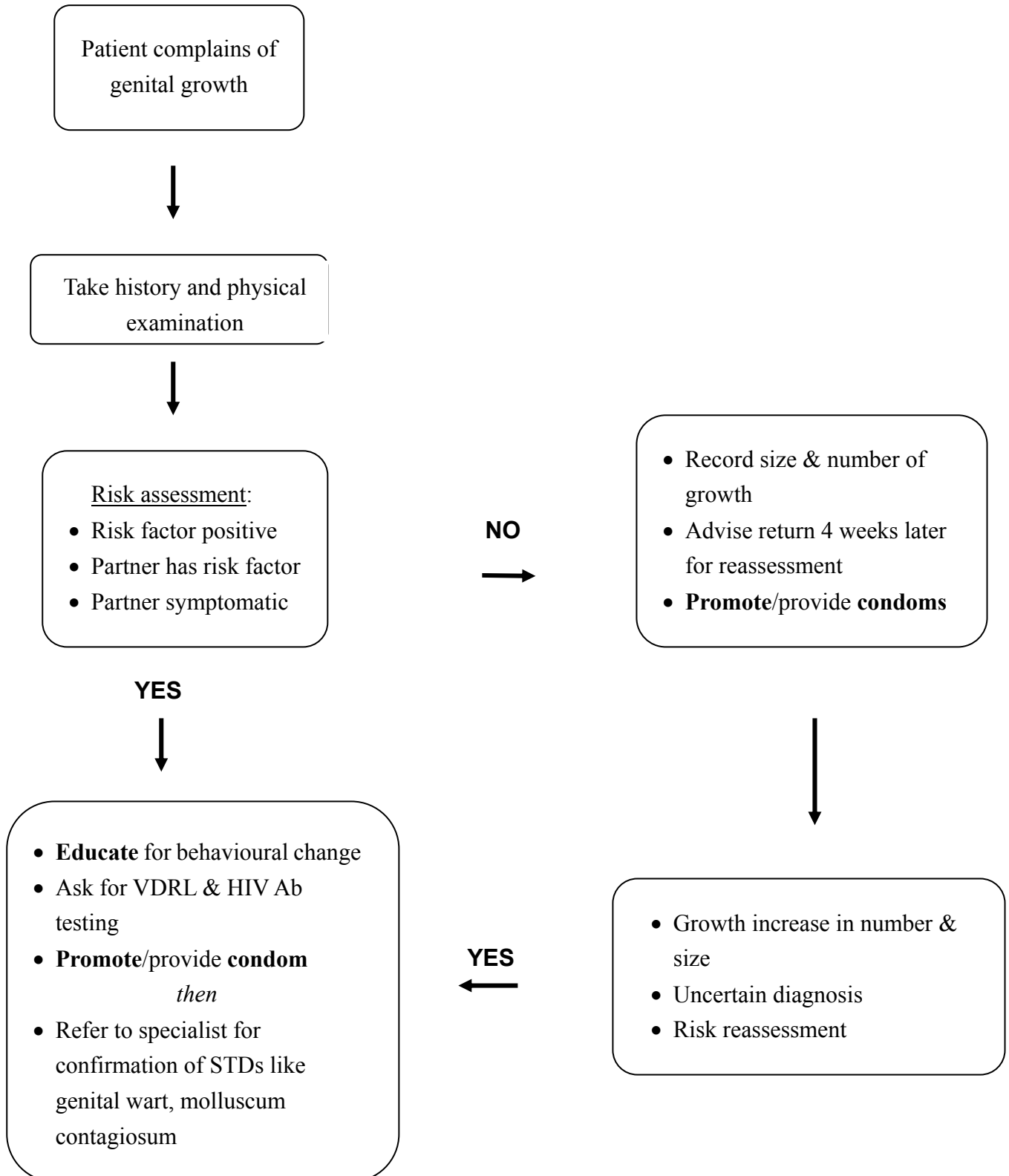
Refer to A & E department of hospital or relevant specialist for acute abdominal conditions like appendicitis, ectopic pregnancy, pelvic inflammatory disease.

Flow-chart for Genital Ulcer Syndrome (flow-chart 3)



Flow-chart for Genital Growth

(flow-chart 4)



Treatment for Gonorrhoea and Chlamydial infection in Men

(see flow-chart 1)

Symptom and sign:	● Urethral discharge and dysuria
Diagnosis:	● Microscopy for gram negative diplococci and pus cells ● Specific culture medium and transport medium is required for culture ● Chlamydial antigen testing (culture or DNA testing)

By **syndromic** approach: ● Refer to flow-chart 1

Treatment of gonococcal urethritis:	● Ceftributen 400 mg in single oral dose	OR
	● Spectinomycin 2 - 4 gm single i.m.i. dose	OR
	● Ceftriaxone 250 mg single i.m.i. dose	
PLUS		
For the treatment of chlamydial urethritis:		
	● Doxycycline 100 mg orally twice daily for 7 days	OR
	● Tetracycline 500 mg orally four times daily for 7 days	OR
	● Erythromycin 500 mg orally four times daily for 7 days	OR
	● Azithromycin 1 gm orally in a single dose	OR
	● Clarithromycin 250 mg orally twice daily for 7 days	OR
	● Ofloxacin/ Levofloxacin 200 mg orally twice daily for 7 days	
NOTE: Prolonged treatment may be necessary in cases with complications like epididymo-orchitis, tysonitis, etc. Azithromycin 2 gm orally may be given as a single dose to treat gonorrhoea and it has also additional coverage of concomitant chlamydial infection.		

Treatment for Vaginitis only

(see flow-chart 2)

Symptom and sign:	● Pruritus, soreness, irritation and discharge
Diagnosis:	● Characteristics and smell of discharge
	● pH
	● Microscopy by wet mount and/or Gram stain
	● Culture for <i>Trichomonas vaginalis</i>

By syndromic approach:	● Refer to flow-chart 2
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Treatment:	<ul style="list-style-type: none">● Tinidazole 2 gm as a single oral dose to be taken at the clinic OR● Metronidazole 2 gm as a single oral dose to be taken at the clinic OR● Metronidazole 200 mg orally three times daily/ 400 mg orally twice daily for 7 days
NOTE:	Do not prescribe Metronidazole and Tinidazole in the 1 st trimester of pregnancy (and probably also in lactating women) and warn against drinking alcohol while taking it.
	PLUS
	<ul style="list-style-type: none">● Clotrimazole vaginal pessary one tab nocte for 6 days OR● Tioconazole vaginal pessary one tab nocte for 3 days OR● Isoconazole vaginal pessary two tab nocte for 1 day OR● Nystatin 100,000 unit (one pessary) nocte daily for 14 days OR● Fluconazole 150 mg as a single oral dose OR● Itraconazole 200 mg twice daily for 1 day
NOTE:	<ol style="list-style-type: none">1) Screening for other potentially associated STDs is recommended.2) Other preparations for the treatment of candidiasis are available, please refer to the local formulary for detail.

Treatment for both Cervicitis and Vaginitis

(see flow-chart 2)

- | | |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Symptom and sign: | <ul style="list-style-type: none">● Vaginal discharge, lower abdominal pain or● Symptomatic partner or● Positive risk factors● May be asymptomatic in cervicitis |
| Diagnosis: | <ul style="list-style-type: none">● Microscopy (with Gram stain) for cervical smear for Gram negative diplococci and counting for pus cells● Culture for Gonococcus (special transport and culture medium required)● Chlamydial antigen testing (culture or DNA testing) |

- By syndromic approach:
- Refer to flow-chart 2

Treat the patient for **Vaginitis** only as above

PLUS

For **gonococcal cervicitis**:

- **Ceftibuten 400 mg orally in a single dose** OR
- **Spectinomycin 2 - 4 gm single i.m.i. dose** OR
- **Ceftriaxone 250 mg single i.m.i. dose**

PLUS

For **chlamydial cervicitis**:

- **Doxycycline 100 mg orally twice daily for 7 days** OR
- **Tetracycline 500 mg orally 4 times daily for 7 days** OR
- **Erythromycin 500 mg orally 4 times daily for 7 days** OR
- **Azithromycin 1 gm orally in a single dose** OR
- **Clarithromycin 250 mg orally twice daily for 7 days** OR
- **Ofloxacin / Levofloxacin 200 mg orally twice daily for 7 days**

NOTE: Levofloxacin, doxycycline, tetracycline are contraindicated in pregnant or lactating women.

Azithromycin 2 gm orally may be given as a single dose to treat gonorrhoea and it has also additional coverage of concomitant chlamydial infection.

NOTE: For patient suspected to have acute pelvic inflammatory disease complicating cervicitis, it is extremely important to rule out serious conditions like ectopic pregnancy, appendicitis, etc. Prompt referral to the relevant specialist or A & E department is mandatory.

Treatment for Syphilis

(see flow-chart 3)

Symptom and sign:	<ul style="list-style-type: none"> ● Primary syphilis: non painful genital ulcer ● Secondary syphilis: general malaise, fever, skin rash, mouth ulcer, condylomata lata, lymphadenopathy ● Tertiary syphilis: latent, cardiovascular syphilis, neurosyphilis, gumma
Diagnosis:	<ul style="list-style-type: none"> ● Dark ground microscopy for exudate for 3 consecutive days to demonstrate the spirochaetes ● Reaginic test: VDRL ● Confirmation by FTA-Abs or TPHA/TPPA

By **syndromic** approach: ● Refer to flow-chart 3

approach:

	P.S., S.S., E.L.S.	L.L.S., cardiovascular syphilis	N.S., Ocular syphilis
Procaine Penicillin	1.2 megaunit imi	1.2 megaunit imi + Probenecid 500 mg 4x / day	2.4 megaunit imi + Probenecid 500 mg 4x / day
No. of days	10	15	14 - 20
Alternative Treatment	<ul style="list-style-type: none"> ● Doxycycline 100 mg 2x / day ● Tetracycline 500 mg 4x / day ● Erythromycin 500 mg 4x / day 	<ul style="list-style-type: none"> ● Doxycycline 100 mg 2x / day ● Tetracycline 500 mg 4x / day ● Erythromycin 500 mg 4x / day 	<ul style="list-style-type: none"> ● Doxycycline 100 mg 2x / day ● Tetracycline 500 mg 4x / day ● Erythromycin 500 mg 4x / day
No. of days	14	28	28

P.S.= primary syphilis; S.S.= secondary syphilis; E.L.S.= early latent syphilis; L.L.S.= late latent syphilis; N.S.= neurosyphilis

NOTE: 1. Doxycycline, Tetracycline should not be used during pregnancy or lactation.
 2. Steroid cover with Prednisolone 30 mg daily is recommended to prevent Jarish Herxheimer reaction in the treatment of cardiovascular, neuro and ocular syphilis.
 3. Baby delivered to woman with syphilis should be treated by Procaine Penicillin 50,000 units/kg i.m.i. daily for 10-15 days if the mother had not been treated by penicillin regimen during her gestation.
 4. Benzathine Penicillin 2.4 megaunit i.m.i. weekly for 3 weeks is a less ideal treatment regimen for syphilis nowadays because the level achieved in the CSF is not good enough to prevent CNS involvement by the *Treponema pallidum*. It is, however, acceptable if the compliance to daily treatment or follow-up cannot be assured.

Management of genital growth

(see flow-chart 4)

Symptom and sign:	<ul style="list-style-type: none">● Warty or non-warty growth over genital area or perianal area.
Diagnosis:	<ul style="list-style-type: none">● The diagnosis include important STDs like genital wart, molluscum contagiosum or normal anatomical structures like fordyce spots, pearly penile papules (pseudo-condyloma of vulva) or skin conditions like skin tag, angiokeratoma, scabetic nodule, sebaceous cyst, etc.● Diagnosis is usually based on clinical assessment according to the clinician's experience.● Skin biopsy is occasionally needed.● The role and interpretation of detecting HPV-DNA is still waiting to be defined.

By **syndromic** approach:

- Refer to flow-chart 4

- Management:**
- Refer to specialist if the diagnosis is not certain.
 - Assess for risk factors and advise on safer sexual practice.
- Treatment of genital wart:
- 0.5% purified Podophyllotoxin solution or 0.15% cream topically twice daily for 3 consecutive days weekly for up to 4 weeks.
 - Imiquimod 5% cream, 3 times a week for as long as 16 weeks.
 - Trichloroacetic acid (TCA) 30% solution weekly application
 - Podophyllin resin 20% may also be used cautiously for selected cases and limited duration under specialist supervision.
 - Refer to specialist if the response is not satisfactory.

Note: Podophyllin and Podophyllotoxin are contraindicated in pregnant women.
Routine use of Podophyllin is not recommended in primary health care setting.

Service provided by the Social Hygiene Service, DH

- Social Hygiene Clinics located in various districts.
- Doctor's referral is not necessary.
- Patient's personal data kept strictly confidential.
- Routine serological test for syphilis and HIV for all patients on voluntary basis.
- Routine speculum examination and cervical and urethral smear for pus cell, gonorrhoea, chlamydial DNA testing and high vaginal swab/smear for candida and trichomoniasis for female patients with or without symptom.
- Penile urethral swab for gonorrhoea culture and chlamydial DNA testing for symptomatic male patients.
- Other tests include dark ground microscopy for spirochaetes, and/or herpes culture for genital ulcers; minor surgery may be conducted on individual basis at the discretion of the attending physician's expert opinion by special arrangement.
- Contact tracing by patient referral.
- Remind defaulters for follow-up.
- Behavioural risk assessment and health education.
- Free condom distribution.
- Treatment for STDs at the same visit when preliminary results by microscopic examination is available.

Clinical services provided by the AIDS Unit, (DH)

- AIDS Hotline (awarded ISO 9001:2000 certification) with 24-hour pre-recorded messages on HIV/STD.
- Free and anonymous voluntary HIV counselling and HIV testing (VCT) service by trained nursing professionals.
- HIV clinical services: disease monitoring, highly active antiretroviral therapy (HAART), drug adherence counselling, prevention and treatment of complications, psychosocial support and counselling, on-site ward/clinic consultation service.
- Therapeutic Prevention Clinic: post-exposure management on HIV, HBV and HCV on a referral basis
- Dermatology and GUM service: medical treatment, consultation, investigative procedures and minor surgical interventions on a tertiary referral basis.
- Hepatitis vaccination service: hepatitis B vaccination for eligible health care workers.

Call for Phone/Clinic/Ward Consultation

2116 2898

AIDS Hotline

Free Anonymous Confidential HIV Counselling and testing

2780 2211

AIDS Unit address: Integrated Treatment Centre
8/F Kowloon Bay Health Centre
9 Kai Yan Street
Kowloon
Tel: 2117 0333 Fax: 2117 0809
Internet Site: <http://www.aids.gov.hk>

Address and registration hours of Social Hygiene Clinics, DH

- Treatment is free
- No referral or appointment is needed
- All information is strictly confidential
- HIV testing is also provided for those who attend the clinics for suspected sexually transmitted diseases.

Male Clinics	Female Clinics
<p>Chaiwan Social Hygiene Clinic West, LG5 Specialist Outpatient Department, Pamela Youde Nethersole Eastern Hospital 3 Lok Man Road, Chaiwan, Hong Kong Tue, Thur 9am – 12noon, 2pm – 4pm Tel : 2595 7500</p> <p>Wanchai (Male) S.H.C. 6/F Tang Chi Ngong Specialist Clinic 284 Queen's Road East, Wanchai, Hong Kong Mon – Sat 9am – 12noon Mon, Tue, Wed & Fri 2pm – 4pm Tel : 31032400</p> <p>Yung Fung Shee S.H. C. 4/F Yung Fung Shee Memorial Centre 79 Cha Kwo Ling Road, Kwun Tong, Kowloon Mon, Wed & Fri 9am – 12noon, 2pm – 4pm Tel : 2727 8315</p> <p>Yaumatei (Male) S.H.C. 4/F Yaumatei Jockey Club Polyclinic, 145 Battery Street, Yaumatei, Kowloon Mon, Wed, Thur, Fri & Sat 9am – 12noon Mon to Fri 2pm – 4pm Tue 5pm – 7pm Tel : 2359 4377 * Tuesday morning for pre-arranged operation only</p> <p>Tuen Mun S.H.C. 9/F Ambulatory care Centre, Tuen Mun Hospital, Tuen Mun, N.T. Tue, Sat 9am – 12noon Tue, Thur 2pm – 4pm Tel : 2459 2958</p> <p>Lek Yuen S.H.C. 3/F Lek Yuen Health Centre 9 Lek Yuen Street, Shatin, N.T. Tue, Thur, Sat 9am – 12noon Thur 2pm – 4pm Tel : 2692 8120</p> <p>Fanling Integrated Treatment Centre (Social Hygiene Service) 6/F Fanling Health Centre, 2 Pik Fung Road, Fanling, N.T. Tue, Thur, Sat 9am-12noon Mon, Tue, Thur 2pm-4pm 26391437 * By appointment</p>	<p>Chaiwan Social Hygiene Clinic West, LG5 Specialist Outpatient Department, Pamela Youde Nethersole Eastern Hospital 3 Lok Man Road, Chaiwan, Hong Kong Wed 9am – 12noon Mon, Wed, Fri 2pm – 4pm Tel : 2595 7500</p> <p>Wanchai (Female) S.H.C. 7/F Tang Chi Ngong Specialist Clinic 284 Queen's Road East, Wanchai, Hong Kong Mon – Sat 9am – 12noon Mon to Fri 2pm – 4pm Tel : 31032411 *Registration Office in 6/F</p> <p>Yung Fung Shee S.H. C. 4/F Yung Fung Shee Memorial Centre 79 Cha Kwo Ling Road, Kwun Tong, Kowloon Tue & Thurs 9am – 12noon, 2pm – 4pm Sat 9am – 12noon Tel : 2727 8315</p> <p>Yaumatei (Female) S.H.C. 3/F Yaumatei Jockey Club Polyclinic, 145 Battery Street, Yaumatei, Kowloon Mon to Sat 9am – 12noon Mon to Fri 2pm – 4pm Tue 5pm – 7pm Tel : 2388 6634</p> <p>Tuen Mun S.H.C. 9/F Ambulatory care Centre, Tuen Mun Hospital, Tuen Mun, N.T. Mon, Wed & Fri 9am – 12noon, 2pm – 4pm Tel : 2459 2958</p> <p>Lek Yuen S.H.C. 3/F Lek Yuen Health Centre 9 Lek Yuen Street, Shatin, N.T. Fri 9am – 12noon Mon, Wed, Fri 2pm – 4pm Tel : 2692 8120</p> <p>Fanling Integrated Treatment Centre (Social Hygiene Service) 6/F Fanling Health Centre, 2 Pik Fung Road, Fanling, N.T. Tue, Thur, Sat 9am-12noon Mon, Tue, Thur 2pm-4pm 26391437 * By appointment</p>