

Comprehensive
Reproductive Health and Family Planning
Training Curriculum

**MODULE 12:
PREVENTION AND MANAGEMENT
OF REPRODUCTIVE TRACT
INFECTIONS (RTIS)**

PARTICIPANT'S MANUAL

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COLOR TRANSPARENCIES

PARTICIPANT HANDOUTS



0.0A: Course Expectations

Take notes on your partner's expectations using this worksheet.

1. Where do you work and what is your function?
2. Are you presently involved in STD prevention and/or diagnosis and treatment?
3. Do you anticipate any difficulties during the course?
4. What do you hope to accomplish during this course?
5. What specifically do you expect to take back to your workplace from this course and how do you think this training will help you at work?



0.0B: *Where Are We? and Reflections*

Activity: Daily review of key concepts
Materials: Flipchart, stand, and markers
Time: 10–15 minutes each day

Purpose:

1. To give people the opportunity to review what they learned the previous day.
2. To provide a transition from one day to the next.
3. To indicate to the trainers how much participants have retained.
4. To clarify any misconceptions or misunderstandings.

Procedure:

Each morning (with exception of the first day) before the session begins, a designated trainer should come to the front of the group to facilitate a discussion of the key concepts of the day before.

1. Ask participants to state the main or key points from the day before.
2. Write down their comments on the flipchart.
3. If someone gives you a one-word answer, ask that person to expand on the point. If s/he has difficulty verbalizing the concept, ask another participant to help.
4. Do not spend too long on this; remember you are looking only for the most important themes, not a summary of the previous day's session.
5. Save the flipcharts to review at the last session. This helps participants see what they consider the main points learned throughout the workshop. The information may also help the trainers in their evaluation of the workshop and its activities.

Alternative procedure:

6. The trainer reads the previous day's key concepts from a flipchart. (This ensures that the correct concepts are presented, rather than assuming that every participant is capable of identifying and clearly stating them.)
7. Either review the flipcharts at the last session or present each participant with a Key Concept handout for them to use as a permanent reminder of their most important workshop learnings.

Source: Family Health Services Project of Nigeria. *Interpersonal communication and counseling for family planning*. JHU /PCS and PATH, 1989.



0.0B: *Where Are We?* and *Reflections* continued

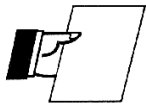
Reflections

After a full day of activities, we need to take time to look over what we have done and examine what it means to us individually. This is a method to explore how what we have learned can be applied in a broader setting.

The "Reflections" activity will be our opportunity to make these analyses. It is also an opportunity for the trainers and Px to share feedback on the training activities and to identify areas that need reinforcement or further discussion. Therefore, at the end of each day, we will use various methods of conducting this activity to reflect on the day's work.

For the first session of "Reflections," each trainer and Px should answer the following questions and share responses with the group:

- What did I like about today?
- What did I not like about today?
- What did I learn and experience today that I will be able to use?



0.0C: Pre-test

Participant Name _____

Instructions. Circle correct answers in Sections A, B, and C. Follow specific directions for each section. There is a total of 50 points.

Section A. Circle one letter only.

1. **In women, the signs and symptoms of STDs are often:**
 - a. More easily recognized than in men.
 - b. Less reliable indicators of disease than in men.
 - c. Less likely to become serious than they are in men.
 - d. More likely to affect older women.

2. **Which of the following contributes to the rapid spread of HIV?**
 - a. Lack of sufficient laboratory facilities for diagnosis.
 - b. Poor hygiene.
 - c. Lack of effective drugs.
 - d. High risk sexual behavior.

3. **A woman with 2 children has HIV and wants to get pregnant. What is the best action to take?**
 - a. Tell her it is not a very good idea because the baby is unlikely to live very long.
 - b. Tell her you think it is a bad idea, but she has to make her own decision.
 - c. Tell her to discuss it with her husband and then decide.
 - d. Give her all the information she needs and support her in her own decision.

4. **Which of the following questions may help you assess a person's risk of getting or giving a STD?**
 - a. Does your partner live away from home?
 - b. Are you over 30 years old?
 - c. Do you know anyone with AIDS?
 - d. Have you had a new sexual partner in the past 3 months?
 - e. Have you ever had a STD?
 - f. B, c, and e.
 - g. A., d, and e



0.0C: Pre-test continued

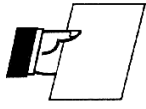
5. **The following are all good ways to prevent STDs in married, monogamous women except:**
 - a. Make sure that STD services are available to their husbands.
 - b. Outlaw prostitution.
 - c. Promote widespread condom use.
 - d. Give women the skills to negotiate safer sex.

6. **When a patient complains of symptoms of a STD, the following examination is ideal:**
 - a. A general physical examination.
 - b. A genital examination.
 - c. Both general physical and genital examinations.
 - d. Neither is necessary when using a syndromic approach for STD management.

7. **Examination for urethral discharge in men should be done:**
 - a. With the patient lying down.
 - b. Asking the patient to urinate before the examination.
 - c. By asking the patient to milk the penis if you don't see any discharge.
 - d. By asking the patient to wipe off his penis before you examine him.

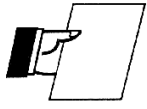
8. **The main causes of urethral discharge are:**
 - a. Syphilis and gonorrhea.
 - b. Herpes simplex and chancroid.
 - c. Gonorrhea and chlamydia.
 - d. Chlamydia and syphilis.

9. **The new approach to syndromic management of vaginal discharge excludes which of the following?**
 - a. Treat vaginal discharge as an infection of the vagina.
 - b. If the patient complains of vaginal discharge and she is at high risk for a STD, treat her for cervicitis and vaginitis.
 - c. If the patient complains of vaginal discharge, treat for all possible infections of the vagina and cervix.
 - d. Use every method you have to make a better, more specific diagnosis of STD.



0.0C: Pre-test continued

- 10. A woman has cervical mucopus and lower abdominal pain with no rebound tenderness or guarding. Which of the following is correct?**
- She should be referred immediately to a surgeon.
 - She should be treated for PID.
 - Trichomonas vaginalis is probably the causative organism.
 - She is unlikely to have complications unless she is pregnant.
- 11. Genital ulcer disease is important because:**
- It is a major cause of infertility.
 - It may facilitate the spread of HIV.
 - It often causes impotence in men.
 - It is usually associated with another RTI.
- 12. The practice of treating for 2 different types of genital ulcer disease (chancroid and syphilis) at the same time is:**
- Bad because an individual is rarely infected with 2 different pathogens.
 - Wasteful because a good clinical examination will almost always lead to a specific diagnosis.
 - Necessary because it is difficult to predict clinically the cause of most genital ulcers.
 - Dangerous because of drug interactions.
- 13. A person infected with chancroid will often have:**
- Genital ulcers which come and go spontaneously over many months.
 - Genital ulcers which progress, causing extensive tissue damage if not treated.
 - A genital ulcer that lasts one or 2 weeks and then resolves completely on its own.
 - Multiple, painful vesicles filled with clear fluid.
- 14. Which of the following laboratory tests is most useful for STD control in developing countries?**
- Screening tests for syphilis such as RPR and VDRL.
 - Gram stain for gonorrhea.
 - Urine LED (leukocyte esterase dipstick) for white blood cells.
 - Gonorrhea culture.

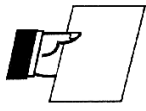


0.0C: Pre-test continued

15. A young female sex worker comes to you with vaginal discharge. She says she has had several STDs in the past. Which of the following is the most appropriate action to take?
- Find out what she knows about STDs.
 - Tell her to find other work.
 - Warn her that she might have AIDS.
 - Avoid topics which might embarrass her.

Section B. Circle two letters only.

- Why are STDs, excluding HIV, regarded as a public health priority?**
 - Because unless they are treated promptly, they are incurable.
 - Because they have severe health consequences.
 - Because treating them promptly can help HIV from spreading.
- Which of the following consequences may result if STDs are not treated?**
 - Men may develop prostatic carcinoma.
 - Women may develop breast cancer.
 - Women may become infertile
 - Men may become infertile.
- A negative test for HIV can mean:**
 - A person is not infected with HIV.
 - A person is infected but has not yet made antibodies.
 - The person has already made antibodies to HIV.
 - The person cannot possibly be HIV infected.
- Which are signs of AIDS?**
 - Gradual weight gain.
 - Constipation.
 - Generalized swelling of the lymph nodes.
 - A fungal infection.
- Which of the following are open-ended questions?**
 - Tell me about your symptoms.
 - Is the discharge milky or clear?
 - Did you use a condom the last time you had sex?
 - What does the pain feel like?



0.0C: Pre-test continued

6. **The 2 main elements of STD control are:**
 - a. Case management.
 - b. Legalizing prostitution.
 - c. Prevention.
 - d. Providing laboratory diagnosis at all clinics.

7. **Women are more vulnerable to HIV infection than men are because:**
 - a. Pregnancy and breast feeding lower a woman's resistance to HIV.
 - b. Women are smaller, so they have fewer white blood cells to fight infection.
 - c. Women are often anemic.
 - d. Semen stays in contact with the vaginal wall for a long time.
 - e. Women have less power to negotiate safer sex.

8. **The disadvantages of syndromic management include which of the following?**
 - a. There is a potential for the over-use of antibiotics.
 - b. Patients must wait for treatment.
 - c. It avoids the wrong treatment since all possible RTIs causing signs and symptoms are treated at once.
 - d. It doesn't work well for vaginal discharge.

9. **Syndromic management of vaginal discharge has which of the following problems?**
 - a. Many women with vaginal discharge might have a cervical infection.
 - b. Many women with cervicitis do not have a vaginal discharge.
 - c. The cervix is not easily accessible for examination.
 - d. Most women with vaginal discharge have a STD that needs to be treated.

10. **A young woman who has come to see you with a vaginal discharge is at high risk for a STD. Before prescribing medication for her, what is most important for you to know?**
 - a. How many partners she has.
 - b. Whether she can afford the medication.
 - c. Whether she is pregnant or breastfeeding.
 - d. When her last menstrual period was.



0.0C: Pre-test continued

11. Education about sexual health for girls and boys:

- a. Helps prevent unwanted pregnancy.
- b. Delays the age of onset of sexual activity.
- c. Encourages early sexual activity.
- d. Increases unsafe abortion.

Section C. Place an X before all correct answers

HIV is spread by which of the following?

- Using an unclean needle or syringe.
- Using an unclean speculum.
- Kissing someone with AIDS.
- Through mosquitoes and/or bedbugs.
- Through breastfeeding.
- From a pregnant mother to her unborn infant.
- By sharing latrines or toilets.
- Drinking from the same cup as someone with AIDS.
- Getting blood from an infected person in an open wound.
- Being stuck with a needle used on a person infected with AIDS.
- From a blood transfusion if the blood was not tested.
- Taking care of a person who has AIDS.
- Sharing towels or sheets.

Section D. Circle T (true) or F (false)

- T F Women who are monogamous may need a contraceptive, but not protection from STDs.
- T F Condoms are the only barrier method proven highly effective against STD transmission and pregnancy prevention.
- T F More men are infected with HIV than women.
- T F Cervical cancer can be prevented by screening women for herpes.
- T F The most common causes of vaginal discharge are not sexually transmitted.
- T F Using spermicide can prevent HIV transmission.



0.0D: Skills Self-Assessment Questionnaire continued

8. Do you work with high-risk populations (men, youth, and sex workers) specifically in STD/HIV prevention? If so, describe **briefly**.



0.0D: Physical Exam Self Assessment

Unit 5 has material on five areas of the physical examination: the general exam (brief), abdominal exam of the female, external inspection of the male and female genitals, speculum exam, and internal bimanual exam.

1. I am a (check one): enrolled nurse diploma nurse nurse midwife
 clinical officer physician with general training physician with specialist training _____ specialty? other _____

2. I finished my training (date)_____

3. I was trained in male physical and genital examination in the (check one):
 past year past 5 years past 10 years past 20 years never
 I have recently had a refresher training? yes no If yes, what kind? _____
 _____ Dates? _____

4. I was trained in female physical and genital examination in the (check one):
 past year past 5 years past 10 years past 20 years never
 I have recently had a refresher training? yes no If yes, what kind? _____
 _____ Dates? _____

5. I was trained to do speculum exams on women in the (check one):
 past year past 5 years past 10 years past 20 years never
 I have recently had a refresher training? yes no If yes, what kind? _____
 _____ Dates? _____

6. I was trained to do bimanual exams on women in the (check one):
 past year past 5 years past 10 years past 20 years never
 I have recently had a refresher training? yes no If yes, what kind? _____
 _____ Dates? _____



0.0D: Physical Exam Self Assessment continued

7. During the course of my current work, I do genital exams on men:
 yes _____how often? not now never
8. During the course of my current work, I do genital exams on women:
 yes _____how often? not now never
9. During the course of my current work, I do speculum exams:
 yes _____how often? not now never
10. During the course of my current work, I do bimanual exams:
 yes _____how often? not now never
11. During the course of my current work, I take Pap smears:
 yes _____how often? not now never
12. During the course of my current work, I take samples from the vagina or cervix to test for STDs:
 yes _____how often? not now never
13. During the course of my current work, I take urethral samples from men to test for STDs:
 yes _____how often? not now never
14. In which of these areas do you feel you need more training? (Check as many as needed.)
- Abdominal exam
 - External genital exam of the female
 - External genital exam of the male
 - Speculum exam
 - Bimanual pelvic exam
 - Infection control

Thank you!



1.2A: Acute and Long-term Consequences of STDs

STDs causing genital discharge syndrome (urethritis, cervicitis)

DISEASE (etiologic agent)	ACUTE DISEASE	COMPLICATIONS	EFFECTS ON PREGNANCY/NEWBORN
Gonorrhea <i>Neisseria gonorrhoeae</i>	urethritis, cervicitis, pelvic inflammatory disease (PID), epididymitis	infertility, ectopic pregnancy, chronic pelvic pain, urethral stricture, death	prematurity, septic abortion, ophthalmia neonatorum, postpartum endometritis
Chlamydial Infection <i>Chlamydia trachomatis</i>	urethritis, cervicitis, PID, epididymitis	infertility, ectopic pregnancy, chronic pelvic pain, death	ophthalmia neonatorum, neonatal pneumonia, postpartum endometritis
Trichomoniasis <i>Trichomonas vaginalis</i>	vaginitis, urethritis	none known	postpartum endometritis, neonatal infection (infrequent)
Bacterial vaginosis overgrowth of anaerobic bacteria in the vagina	vaginal discharge, PID	infertility, ectopic pregnancy, chronic pelvic pain, death	prematurity, postpartum endometritis
Vulvovaginal candidiasis <i>Candida albicans</i>	vaginitis	none known	neonatal thrush



1.2A: Acute and Long-term Consequences of STDs continued

STDs causing genital ulcer syndrome

DISEASE (etiologic agent)	ACUTE DISEASE	COMPLICATIONS	EFFECT ON PREGNANCY/NEWBORN
Syphilis <i>Treponema pallidum</i>	genital ulcer, secondary syphilis	neurosyphilis, cardiovascular syphilis, gummata	spontaneous abortion, still birth, congenital syphilis
Chancroid <i>Hemophilus ducreyi</i>	genital ulcer	none known	none known
Herpes <i>Herpes simplex virus(HSV)</i>	genital ulcer	aseptic meningitis, transverse myelitis	neonatal HSV, prematurity



1.2A: Acute and Long-term Consequences of STDs continued

Other STDs

DISEASE (etiologic agent)	ACUTE DISEASE	COMPLICATIONS	EFFECT ON PREGNANCY/NEWBORN
Genital warts/cancer <i>Human papilloma virus (HPV)</i>	genital warts	cervical cancer	congenital transmission possible
Hepatitis B <i>Hepatitis B virus (HBV)</i>	acute hepatitis	chronic hepatitis, cirrhosis, liver cancer	perinatal HBV
HIV/AIDS <i>Human immunodeficiency virus (HIV)</i>	acute infection	AIDS	perinatal HIV



1.2B: Scenarios

Scenario 1

There is a rural household in your community. During the first year of the HIV epidemic the household is made up of a man and woman, 5 children living at home, and 2 older sons who live away from home but send money home to the family. The family farms 2 acres of land. During the second year one of the older sons dies of AIDS and the other falls ill and is unable to send money home. During the third year, the second son dies, and the father is ill with AIDS.

Describe the effect of AIDS on this rural household.

Scenario 2

The country you are living in is in the middle of an AIDS epidemic. Almost 30% of the young adults in the urban areas are infected.

How will this affect the national health sector?

Scenario 3

The country you are living in is in the middle of an AIDS epidemic. Almost 30% of the young adults in the urban areas are infected.

How will this affect the national education sector?

Scenario 4

The country you are living in is in the middle of an AIDS epidemic. Almost 30% of the young adults in the urban areas are infected.

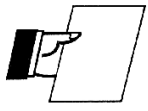
How will this affect the country's industries (for example trade, tourism, and foreign exchange)?



1.3A: STD Patterns and Cofactors

Reference	Study group	Site	STD	Factor by which HIV transmission increased
Plummer et al. (1991)	Female sex workers	Nairobi, Kenya	GUD	3.3
			Chancroid	2.7
Laga et al. (1993)	Female sex workers	Kinshassa, Zaire	Gonorrhea	4.8
			Chlamydia	3.6
			Trichomoniasis	1.9

Source: Anderson, R.M. "Transmission dynamics of sexually transmitted infections." In: Holmes, K.K., Sparling, P.F., Per-Anders, M., Lemon, S.M., Stamm, W.E., Piot, P., and Wasserheit, J.N., eds. 1999. *Sexually transmitted diseases*. 3rd edition. n.p.: McGraw-Hill Health Professions Division. p. 35.

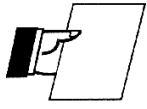


1.3B: Prevention Message

PREVENTION FIRST!

There is no cure for AIDS so prevention is our only hope:

- ◆ Promote condoms
- ◆ Focus on high-risk groups
- ◆ Improve STD management
- ◆ Increase awareness in the community
- ◆ Link care with prevention



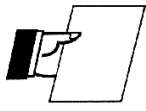
1.5A: Case Studies

Scenario 1

A truck driver was away from home for many days last month. He had sex with 6 women during the month. One woman was his wife, who has no other sexual partner. Four were women working in bars along the road, and the sixth was a sex worker he met in the capital city.

Scenario 2

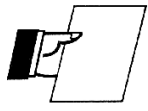
A young woman has a steady boyfriend. Until recently, she had not had sex with anyone else for 2 years. Last week she saw an old boyfriend who had returned to town. Today, at her routine family planning visit, she has a purulent cervical discharge on speculum exam and a lot of pain on lower abdominal and bimanual examinations. You treat her for pelvic inflammatory disease and advise her to arrange for her partners to be treated.



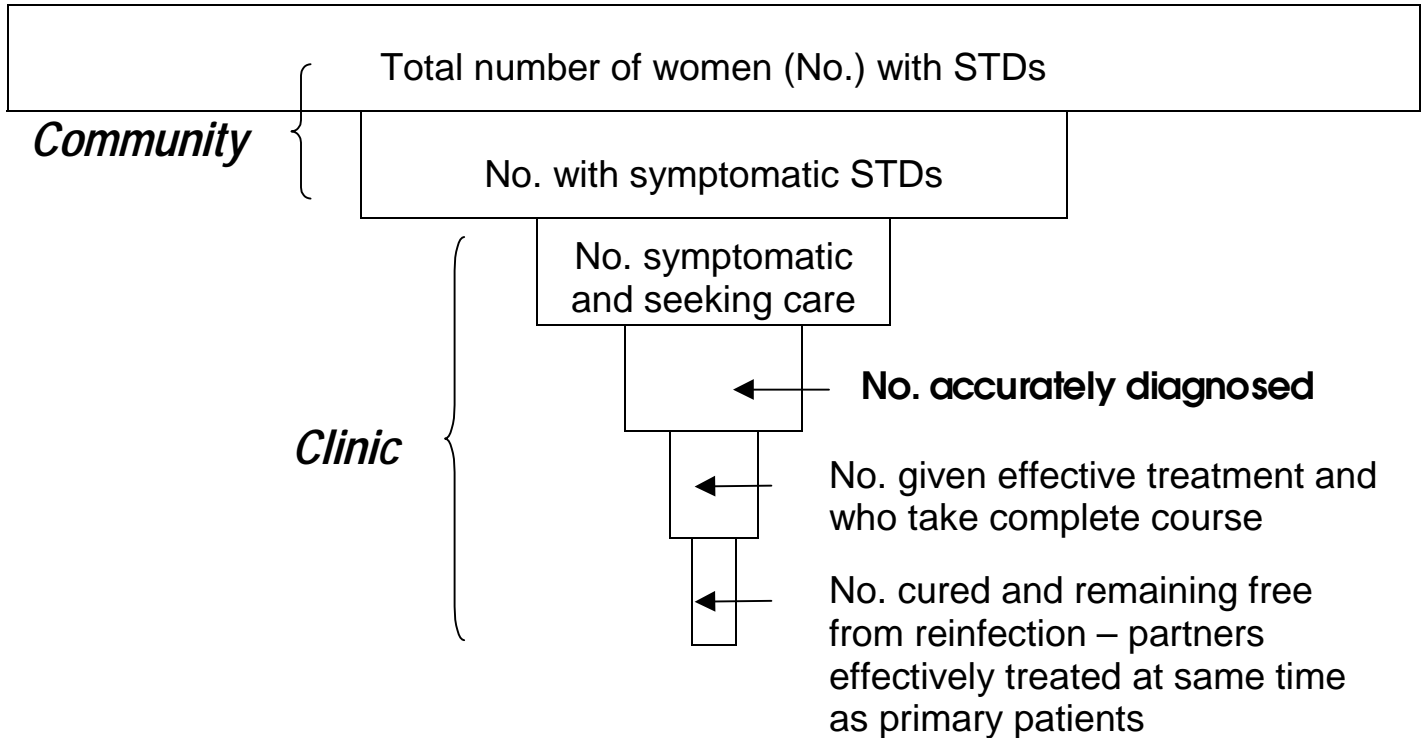
1.5B: Prevention Message

PREVENTION MESSAGE

- ◆ Prevent STDs in married women: make sure that men being treated bring their wives
- ◆ When women have STD symptoms, male partners must be treated
- ◆ Condom use is key – especially with outside partners!

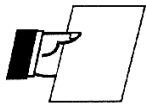


1.6A: Total STDs are Reduced Very Little by Classic Clinical Diagnosis and Treatment



Pathfinder International, October 1999

Illustration modified from one designed by Piot and Fransen, cited by Grosskurth et al. in Mayaud, P., Ka-Gina, G., and Grosskurth, H., STD case management in prevention and management of sexually transmitted diseases in Eastern and Southern Africa: current approaches and future directions, NARESA monograph 3, published by the Network of AIDS Research of Eastern and Southern Africa, 1994, and adapted in Adler M. et al. Sexual health and health care: sexually transmitted infections: guidelines for prevention and treatment, published by DIFD, 1998. The original model came from a women-only sample.



2.1A: Prevention Message

PREVENTION MESSAGE

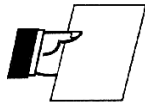
Integrated services can prevent STDs by:

- ◆ Promoting condoms at every opportunity
- ◆ Promoting behavior change
- ◆ Increasing health-seeking behavior
- ◆ Improving partner treatment
- ◆ Improving couple communication



2.3A: Case Study

Case study: Martha is a young married woman with two children who is using injections to delay her next pregnancy. Her husband is a truck driver who is gone for two weeks every month. You referred Martha once last year for treatment for PID, but have never spoken to her about using condoms to protect her from STDs.



2.3B: Associations Between RTIs and Specific Contraceptive Technologies

METHOD	RELATIONSHIP TO RTIS	WHAT CAN BE DONE
<p>Oral contraceptive</p>	<p>Can disrupt the balance of the vaginal environment (particularly high-dose pills), causing development of candida (thrush, yeast infection)</p> <p>Does not protect from STIs</p> <p>May decrease risk of PID</p>	<p>Encourage use of low-dose contraceptive pills</p> <p>suggest the use of barrier methods for additional protection against STIs</p>
<p>Hormonal implant</p>	<p>Does not protect from STIs</p> <p>May decrease risk of PID</p>	<p>Suggest the use of barrier methods for additional protection against STIs</p>
<p>Injectables</p>	<p>Does not protect from STIs</p> <p>May decrease risk of PID</p>	<p>Suggest the use of barrier methods for additional protection against STIs</p>
<p>Diaphragm and/or spermicide</p>	<p>Some partial protection against cervical infection with bacterial STIs; unknown protection from viral STIs, including HIV</p>	<p>Suggest the use of more effective barrier methods for additional protection against STIs</p>
<p>Male latex condoms and polyurethane sheath (female condoms)</p>	<p>Effectively protect against STIs, including HIV/AIDS, when used correctly and consistently</p>	<p>Promote the correct and consistent use of male latex and female polyurethane condoms</p>



2.3B: Associations Between RTIs and Specific Contraceptive Technologies continued

METHOD	RELATIONSHIP TO RTIS	WHAT CAN BE DONE
IUD	Insertion with improperly sterilized medical implements or in a woman with an untreated RTI can introduce bacteria into the uterus, causing iatrogenic infection	Sterilize all implements used for transcervical procedures Screen IUD clients for the presence of RTI; treat first or provide a different method; consider prophylactic antibiotic
Female and male sterilization	Risk of iatrogenic (surgical) infection. Does not protect from STIs, although may decrease risks of PID in women.	Sterilize all implements used in surgery and ensure adequate training of surgical providers. Suggest the use of barrier methods for additional protection against STIs

Adapted from Dallaberta et al., eds. Control of sexually transmitted diseases: a handbook for the design and management of programs by *The Population Council*, [Reproductive tract infections and family planning](#). (19 May 2000)



2.4A: Feasibility of Integration of STD Services

Instructions: Write answers based on the situation in your workplace and community on the feasibility of Integration of STD services. Do not write yes or no answers.

1. Is there high prevalence of STDs in the population served?
2. Is there a high prevalence of HIV/AIDS in the population served?
3. Does your facility serve women and men at high risk of STD and HIV?
4. Is staff trained or willing to be trained to provide integrated FP/STD/HIV services?
5. Are adequate monitoring, supervision, and support of staff available?
6. Does the facility have adequate space and privacy for confidential counseling and physical exams?
7. Are infection prevention procedures in place?



2.4A: Feasibility of Integration of STD Services continued

8. Are funds available to procure antibiotics and other supplies such as gloves, condoms, etc. and to manage supplies?

9. Is screening for syphilis available?

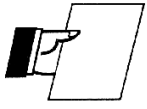
10. Can partners be treated?

11. Can youth and men be served?

12. Do other services exist in the community to form linkages with?

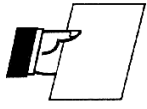
13. Are materials and messages for IEC available?

14. Can new services be added without large funding increases, or is funding available?



3.1A: Why Community Prevention?

- To increase awareness of STD symptoms and their consequences
- To counter myths and rumors
- To encourage risk reducing behaviors
- To increase use of available health services
- To start a process of social change
- To gain public support for STD services
- To increase support for STD services from community leaders



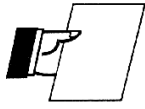
4.2A: Competency Based Training (CBT) Skills Assessment Checklist for History Taking

TASK/ACTIVITY	CASES			COMMENTS
	1	2	3	
General				
• Greets the patient				
• Provides the patient with privacy				
• Establishes eye contact				
• Is attentive during the visit				
• Sits if the patient sits, stands if s/he stands				
• Empathizes with the patient during the visit				
• Listens actively to the patient during the visit				
• Poses questions clearly				
General Information Questions				
• Asks the patient's age				
• Asks if s/he has any children and how many				
• Asks if s/he is employed and at what job				
• Asks if s/he is single, married or widowed				
• Asks when her last normal menstrual period was				
• Asks if s/he uses a contraceptive method and which one				
Present Illness				
• Asks why she has come for a visit				
• Asks what symptoms she has				
• Asks when symptoms began and their duration				
Medical History				
• Asks if she has ever had a STD in the past				
• Asks which STD and how it was diagnosed and treated				
• Asks if her/his problem was cured				
• Asks if any tests were done and about the results				
• Asks if s/he has had any other illness				
• Asks how they were treated, and if they were cured				



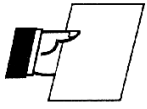
4.2A: CBT Skills Assessment Checklist for History Taking continued

TASK/ACTIVITY	CASES			COMMENTS
	1	2	3	
For Vaginal Discharge				
• Asks if there is pain when she passes urine				
• Asks if she is passing urine more than usual				
• Asks if there is itching and burning of the genital area				
• Asks about the color of the discharge				
• Asks if she experiences pain with intercourse				
• Asks if her partner has symptoms of STD such as discharge from the penis or sores on the penis				
• Asks if she has vaginal bleeding				
For Abdominal Pain				
• Asks if she missed a period or if a period were late				
• Asks if she is experiencing vaginal bleeding or discharge				
• Asks if she had recently given birth or had an abortion				
• Asks if her menses are painful or irregular				
• Asks if her partner has symptoms of STD such as discharge from the penis or sores on the penis				
• Asks if she experiences pain with intercourse				
For Genital Ulcer				
• Asks if ulcers are painful				
• Asks if ulcers are recurrent				
For Urethral Discharge				
• Asks if he experiences burning on urination				
Medications				
• Asks if s/he is taking any medications				
• Asks which medications and for what reason				
• Asks if s/he has any medication allergies				
• Asks if she is pregnant				



4.2A: CBT Skills Assessment Checklist for History Taking continued

TASK/ACTIVITY	CASES			COMMENTS
	1	2	3	
Sexual History				
• Asks age of first intercourse				
• Asks if s/he is currently sexually active (has a partner/s with whom s/he has intercourse)				
• Asks if s/he has had a new partner in the past 3 months				
• Asks if s/he uses condoms and if so, are they used with every act of intercourse				
• Ask if s/he practices any sexual behaviors which might put him or her at risk				
Risk Assessment				
• Asks risk assessment questions as appropriate:				
• Partner is a migrant worker				
• Partner in the military				
• She has other partners				
• She works as a maid				
• She works as a bar girl				
• She is a street child				
• She is a sex worker				
• Her partner has other partners				
• Her partner has a STD				
• Her partner has AIDS				
• He has many or casual partners				
• He works as a truck driver				
• He is a migrant worker				
• He has a STD				
• His partner has a STD				
• He frequents bars often and drinks				
• Asks if patient has sex with more than one partner				

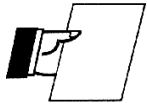


4.3A: Case Study

A study was recently conducted in Mexico in a clinic where the IUD is the most common contraceptive method. In the study, women in a FP waiting room were given general information on STD transmission, signs and symptoms, risks, and complications especially with IUDs. These women were then asked during their consultations simply whether they wanted IUDs or not, based on the information they had been given. The examining doctors also made recommendations of appropriateness of the IUD as a method for each woman. The women were tested for STD as a way of determining what percentage of the women were STD-infected. The women themselves predicted their risk with twice the accuracy of the doctors.¹

Is this surprising to you? What factors would account for a less than accurate risk assessment done by the doctors?

¹Lazcano Ponce, E.C., N.L. Sloan, B. Winikoff, A. Langer, C. Coggins, A. Heimbürger, C.J. Conde-Glez, and J. Salmeron. 1994. *The power of information and choice in a family planning setting*. Unpublished.



4.3B: Risk Assessment Questions

Instructions :

Discuss and respond to these topics and questions based on your experiences in the clinics in which you work.

1. Do you think the risk factors just presented actually represent increased STD risk in your community? Would you feel comfortable asking your patients such questions?
2. Make a list of other criteria from your experience/community that might alert you to the possibility of STD risk or infection, such as a partner with symptoms or a person who travels frequently.
3. How would you go about risk assessment in your own clinic? For example, would you create posters or printed materials that help with self assessment? Would you question patients directly?
4. How would you improve, refine, or localize risk assessment questions?
- 15.



4.3C: Prevention Message

PREVENTION MESSAGE

Help people to assess their own risk.

Increased awareness of personal risk may lead to positive behavior change and prevention of future infection.



4.4A: Role Plays

1. You are a 30-year-old married woman who experiences pain during sexual intercourse. Your husband lives with you, and you are sure that he is faithful. You have 3 children, and your last was born 5 years ago. Since then, you have not been able to conceive. Sometimes you have bad pain with your periods and bleed heavily. You don't think you've ever had a STD.
2. You are a 40-year-old woman, and you noticed sores on your outer genitals 3 days ago. They are a bit painful. You have lived alone with your 4 children since your husband was killed in an accident a few years ago. You occasionally have sexual relations with a trader who comes through your village, but you don't usually use condoms.
3. You are a 20-year-old man with a urethral discharge. You work as a bus driver in the city. Three days ago, you had sexual relations with an older woman and you did not use a condom. You have never had a STD before.
4. You are a 25-year-old woman with vaginal discharge. The discharge is itchy and stains your underwear. You have 2 children and are married, but you have not seen your husband for 6 months since he is out of the country working. You have no other partners.



5.1A: Case Study

M_____ is a family planning provider in a rural PHC clinic who has just received training in the management of RTIs, although no STD services are being offered at this time. H_____ is a young married woman who comes to see M_____ for her regular injection of Depo-Provera, but also complains of burning and pain during intercourse with her husband. M_____’s clinic has one private room with an exam table that is used mainly for ANC. She has a pair of clean, reusable gloves. What kind of examination can she provide for H_____?



5.2A: Female and Male Anatomy

Female External Anatomy

- Vulva
- Vagina
- Introitus
- Urethral opening
- Labia majora
- Labia minora
- Clitoris
- Clitoral hood
- Perineum
- Anus

Female Internal Anatomy

- Vaginal walls
- Cervix
- Cervical os
- Uterus
- Fallopian tubes
- Ovaries
- Adnexae
- Bladder

Male Anatomy

- Glans penis
- Shaft
- Urethral meatus
- Foreskin
- Scrotum
- Testes
- Prostate gland
- Epididymus
- Vas deferens
- Bladder
- Anus



5.3A: Major STDs Other Than HIV

Gonorrhea

Agent: Bacterial, *Neisseria gonorrhoea*, a gram-negative, intracellular diplococcus. Laboratory diagnosis by culture for urethral and cervical infections. Gram-stained smear for symptomatic urethral infections in men is highly reliable and faster.

Incubation Period: 4–7 days (occasionally as little as 24 hours and as long as 1 month).

Symptoms and Signs (S&S): Men: abrupt onset; dysuria; profuse, purulent discharge (present or milked). Men may have one symptom or none at all. Women: may have vaginal discharge, dysuria, intermenstrual bleeding, heavy menses, cervicitis with purulent discharge, pelvic inflammatory disease (PID). Women usually have no symptoms.

Differential Diagnosis (Diff. Dx.): Chlamydia may present with similar symptoms, and the two are commonly present at the same time and should both be treated.

Complications: Women: ectopic pregnancy, chronic pelvic pain, urethral strictures, Bartholin's gland infection. Men: epididymitis, urethral strictures. If untreated, can lead to disseminated systemic infections, death. Infertility is a complication in men and women.

Pregnancy/Newborn Effects (Preg./NB): Miscarriage, prematurity, acute chorioamnionitis, ophthalmia neonatorum.

Note: Gonorrhea has become resistant in many areas to several antibiotics, most notably the penicillins and tetracyclines.



5.3A: Major STDs continued

Chlamydia

Agent: Bacterial, *Chlamydia trachomatis*. Laboratory diagnosis by cell culture is difficult and costly. Direct immuno-fluorescence microscopy or enzyme immunoassays (Microtrak or Chlamydiazyme) more sensitive but costly. None of these available in resource-poor settings.

Incubation: 3–30 days (commonly 10–21 days), but asymptomatic infection can produce symptoms as much as several years later.

S&S: Men: similar to gonorrhea, but discharge moderate, white to clear, but 25–50% of cases asymptomatic. Women: 60–70% are without symptoms, but may have dysuria; pelvic pain; and, on speculum exam, mucopurulent endocervical discharge (40%), reddened, beefy and friable (bleeding easily) cervix.

Diff. Dx: Gonorrhea and chlamydia commonly occur together and cannot be differentiated clinically.

Complications: Women: PID, ectopic pregnancy, chronic pelvic pain. Men: epididymitis. In men and women: infertility. Because symptoms are outwardly mild, may cause more complications than gonorrhea because treatment is sought late or not at all.

Preg./NB: Same as gonorrhea, but neonatal pneumonia as well.

Note: In some regions, there are serotypes of chlamydia that cause lymphogranuloma venereum (LGV). This presents as a herpes-like lesion, or less commonly as a papule, an ulcer or erosion in the genital area, often associated with penile lymphangitis or vaginal swelling and a large, tender, inguinal swelling called a bubo. Another serotype of chlamydia causes trachoma and is a major cause of blindness in developing countries.



5.3A: Major STDs continued

Trichomoniasis

Agent: A protozoa/parasite, *Trichomonas vaginalis*. Laboratory diagnosis by wet mount. (Specimen collected from the posterior vagina, smeared onto slide with a few drops of normal saline and examined under the microscope.)

Incubation: 1–2 weeks.

S&S: Only half of cases have symptoms. Yellow discharge, which may be profuse or purulent, itching, vulvar and vaginal erythema, urethritis. Men are almost always without symptoms but may complain of urethritis or balanitis.

Diff. Dx: Difficult to distinguish clinically from bacterial vaginosis and other causes of vaginal discharge.

Complications: Rare endometritis.

Preg./NB: Postpartum endometritis, post C/section infection, prematurity, neonatal infection in female babies.

Note: Often co-exists with bacterial vaginosis and is associated with increased acquisition and transmission of HIV in women.



5.3A: Major STDs continued

Syphilis

Agent: Bacterial, *Treponema pallidum*, a spirochete. Laboratory diagnosis by blood test, most commonly RPR (rapid plasma reagin) or TPHA. New rapid tests are available and inexpensive.

Incubation: Usually 21–35 days. Can be 10–90 days. Ulcers are a factor in HIV transmission.

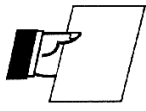
S&S: Primary: One (or more) painless ulcer, 1–2 cm in diameter, on the penis or in or around the vagina, which may go undetected. Secondary: Rash over palms and soles of feet, also trunk, arms and legs, with malaise, sore throat, low grade fever, and muscle aches. There may be no signs.

Diff. Dx: Chancroid, herpes, psoriasis, eczema, genital warts, and others can all resemble cutaneous manifestations of syphilis, which is often called the great pretender.

Complications: Tertiary or Late Syphilis (after 3 to 15 years): Pockets of damage to organ systems (gummas); tumors of skin, bones or liver; cardiovascular syphilis, which affects aorta and causes aneurysm or valve disease; and central nervous system disease – paralysis, meningitis, blindness, death.

Preg./NB: Spontaneous abortion (second to early third trimester), prematurity, intrauterine growth retardation, stillbirth or neonatal death. If infected babies survive, multiple systems affected: rhinitis, rash and skin lesions, skeletal defects, dental abnormalities, deafness, blindness, and worsening neurological deficits (parathesias, learning disabilities, mood disorders, etc.).

Note: Screening for syphilis is a cost effective strategy for reducing infant morbidity and mortality. (See Unit 11).



5.3A: Major STDs continued

Chancroid

Agent: Bacterial, *Hemophilus ducreyi*. Laboratory diagnosis by isolation and culture of organism from a lesion or node. (Sensitivity is 60–80% and a special medium is required.)

Incubation: Usually 3–6 days.

S&S: Several sores in genital area. The “chancroid triad”: 1) sores have ragged, undermined edges; 2) purulent, dirty, gray exudate base, and 3) can cause moderate to severe pain (also inguinal pain). Less than 50% have all three. In men, sores are found on internal or external surface of prepuce, and in women at the entrance to vagina, although for women they are often painless.

Diff. Dx: Resembles primary syphilis and herpes.

Complications: The ulcers are a major co-factor in HIV transmission.

Preg./NB: None

Hepatitis B

Agent: Hepatitis B virus. Blood test.

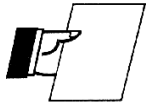
Incubation: Usually 40-110 days; can be shorter.

S&S: Mostly silent. Otherwise, in early stages: fatigue; malaise; nausea; right upper quadrant pain; jaundice; swollen, painful liver; dark urine; rashes; arthritis.

Diff. Dx: Other hepatitis types.

Complications: Cirrhosis, hepatic carcinoma, and in 1%, liver failure and death.

Preg./NB: For infant, if not treated, chronic hepatitis and 25% death in adulthood



5.3A: Major STDs continued

Herpes

Agent: *Herpes simplex virus*. (There are two types – HSV I and II.) Laboratory diagnosis is by direct culture of lesions less than two days old. Requires virology laboratory.

Incubation: 3–6 days.

S&S: Primary outbreak. Begins as multiple widely-spaced vesicles that ulcerate into painful superficial lesions over genital area and eventually crust over. Also can have moderate to severe pain, itching, dysuria, vaginal or urethral discharge, and inguinal adenopathy. Lasts 3–5 weeks. Women have more severe symptoms. Recurring herpes: Local symptoms only mild to moderate, cover much smaller area and last a shorter time. Prodromal symptoms often occur, i.e. tingling, shooting pain in buttocks, legs, hips.

Diff. Dx: Resembles syphilis and chancroid after ulceration occurs.

Complications: Central nervous system involvement, e.g. aseptic meningitis. Lesions can be in other places, such as buttocks, groin, thigh, finger, eye.

Preg./NB: Primary herpes with herpes cervicitis is associated with miscarriage and prematurity. Of babies born with herpes (the risk of infection is 1 in 3 for primary herpes, less than 1 in 30 for recurring), half will either die or have neurological damage.

Note: 80% of outbreaks are asymptomatic, which makes transmission very likely. Herpes is highly associated with HIV acquisition and transmission.



5.3A: Major STDs continued

Genital and Cervical Warts

Agent: Human papilloma virus (HPV). Laboratory diagnosis is by Pap smear. For visible warts on the external genitalia, vagina, or cervix, vinegar acetowhite test.

Incubation: Very variable. From 3 weeks to up to a year.

S&S: The most common types of genital warts are condyloma acuminata, cauliflower-like and spreading, but can also be white, dome-shaped papules, keratotic with a thick, crust-like layer (like common skin warts), or flat-topped, slightly raised papules. Often these are not recognized, but can sometimes, itch, burn, and bleed. Strains of HPV that cause warts are different from those that cause cervical cancer. Women with the types of HPV that cause cervical cancer generally have no symptoms. Three HPV types cause over 95% of all cancer in the cervix, responsible for 400,000 preventable deaths per year, mostly in developing countries. Asymptomatic HPV is often detected on Pap smear but the type cannot be differentiated. Speculum exam or simple visual inspection may reveal abnormal tissue or lesions. Testing for HPV types is currently possible only in highly specialized laboratories.

Diff. Dx: Can be confused with condyloma lata of secondary syphilis.

Complications: Cervical, genital cancers.

Preg./NB: Infant esophageal varices.

Note: Cervical cancer is an AIDS-defining illness. In HIV-positive women, the rate is 5 times that of the general population.



5.4A: Prevention Message

PREVENTION MESSAGE

Cervical Cancer can be prevented by:

- ◆ Delaying onset of first sexual experience
- ◆ Limiting the number of sexual partners
- ◆ Using condoms to prevent STDs, particularly HPV
- ◆ Screening women over 35 by visual inspection or Pap smear



5.5A: Role Play

A young woman named B_____ has come to you because of pain in the abdomen. It has not occurred to her that she could have a STD, and she is fearful and ashamed to have a pelvic examination. The provider needs to reassure her on every objection until B_____ feels comfortable about being examined.



5.6A: Competency-Based Training (CBT) Skills Assessment Checklist for Physical Examination for STDs

TASK/ACTIVITY	CASES			COMMENTS
	1	2	3	
Prepares the Room for Physical Examination				
<ul style="list-style-type: none"> Ensures privacy 				
<ul style="list-style-type: none"> Ensures availability of a light, exam table, speculum (if available). 				
Reassures the Patient				
<ul style="list-style-type: none"> Ensures privacy and confidentiality. 				
<ul style="list-style-type: none"> Explains reasons for the examination. 				
<ul style="list-style-type: none"> Emphasizes that the examination will be brief and gentle. 				
<ul style="list-style-type: none"> Has a friend or co-worker present if provider and patient are not the same sex. 				
General Examination of Males and Females				
<ul style="list-style-type: none"> Tells the patient what s/he is going to do as s/he does each step of the examination. 				
<ul style="list-style-type: none"> Observes general appearance to determine if the patient: <ul style="list-style-type: none"> Looks ill. Walks with difficulty because of pain or weakness. Looks thin, wasted, pale, flushed, or feverish. Is coughing. Has detectable signs of HIV/AIDS (weight loss, thin wasted appearance, generalized swelling of lymph nodes, thrush, fever, chronic cough, chronic diarrhea, shingles, and other rashes). 				
<ul style="list-style-type: none"> Asks the patient to open his/her mouth and looks for mouth ulcers or signs of thrush. 				
Abdominal Examination for Women				
<ul style="list-style-type: none"> Washes his/her hands before the examination. 				
<ul style="list-style-type: none"> Asks the patient to empty the bladder before beginning the exam. 				

TASK/ACTIVITY	CASES			COMMENTS
	1	2	3	
<ul style="list-style-type: none"> Tells the patient what s/he is going to do as s/he does each step of the examination. 				
<ul style="list-style-type: none"> Asks patient to undress or pulls dress up to see the abdomen. 				
<ul style="list-style-type: none"> Asks her to lie flat on her back with knees bent and feet close to her buttocks. 				
<ul style="list-style-type: none"> Asks her to relax her buttocks. 				
<ul style="list-style-type: none"> Listens for bowel sounds. 				
<ul style="list-style-type: none"> Asks patient to point to where it hurts most. 				
<ul style="list-style-type: none"> Presses gently while moving around the abdomen. 				
<ul style="list-style-type: none"> Checks for rebound pain. 				
Female Genital Exam				
<ul style="list-style-type: none"> Asks the patient to empty her bladder before beginning the exam. 				
<ul style="list-style-type: none"> Tells the patient what s/he is going to do as s/he does each step of the examination. 				
<ul style="list-style-type: none"> Asks patient to remove clothing from the waist down. 				
<ul style="list-style-type: none"> Asks her to lie on the table on her back. 				
<ul style="list-style-type: none"> Covers parts of the patient's body not being examined. 				
<ul style="list-style-type: none"> Asks the patient to bend her knees, put her feet next to her buttocks, and let her legs fall apart. 				
<ul style="list-style-type: none"> Puts a clean glove on hand used for vaginal exam or on both hands. 				
<ul style="list-style-type: none"> Points light source towards the vagina. 				
<ul style="list-style-type: none"> Examines labia majora and minora, clitoris, urethra, vaginal opening, anal area and inner thighs for sores, abscesses, warts, vesicles, and rashes. 				
<ul style="list-style-type: none"> Palpates the inguinal region (groin) and looks for swollen lymph nodes. 				
<ul style="list-style-type: none"> Decontaminates used gloves and speculum in 0.5% chlorine solution for 10 min. 				
Bi-manual Pelvic Examination				
<ul style="list-style-type: none"> Tells the patient what s/he is going to do as s/he does each step of the examination. 				
<ul style="list-style-type: none"> Puts the index finger of his/her gloved hand into the vagina while pushing gently downward. 				

TASK/ACTIVITY	CASES			COMMENTS
	1	2	3	
<ul style="list-style-type: none"> • Inserts the middle finger also as the patient relaxes and turns the palm of his/her hand up. 				
<ul style="list-style-type: none"> • Feels the cervix and moves it gently. 				
<ul style="list-style-type: none"> • Places his/her outside hand on the patients lower abdomen and pushes down gently towards his/her inside hand. 				
<ul style="list-style-type: none"> • Feels the uterus for size and shape. 				
<ul style="list-style-type: none"> • Feels the ovaries and fallopian tubes on each side for size and tenderness. 				
<ul style="list-style-type: none"> • Gently removes the gloved hand. 				
<ul style="list-style-type: none"> • Decontaminates used gloves and equipment in 0.5% chlorine solution for 10 min. 				
Examining a Male Patient				
<ul style="list-style-type: none"> • Washes his/her hands before the examination. 				
<ul style="list-style-type: none"> • Tells the patient what s/he is going to do as s/he does each step of the examination. 				
<ul style="list-style-type: none"> • Asks the patient to stand up and lower his pants down to his knees. 				
<ul style="list-style-type: none"> • Palpates the inguinal region (groin) looking for enlarged lymph nodes and buboes. 				
<ul style="list-style-type: none"> • Palpates the scrotum, feeling for the testis, epididymis, and spermatic cord on each side. 				
<ul style="list-style-type: none"> • Examines the penis, noting any rashes or sores. 				
<ul style="list-style-type: none"> • Asks the patient to pull back the foreskin if present and looks at the glans penis and urethral meatus. 				
<ul style="list-style-type: none"> • Asks the patient to milk the urethra is s/he does not see any obvious discharge. 				
<ul style="list-style-type: none"> • Asks the patient to turn his back towards him/her and bend over while he spreads his buttocks slightly. 				
<ul style="list-style-type: none"> • Looks at the anus for the presence of ulcers, warts, rashes, or discharge. 				
<ul style="list-style-type: none"> • Washes his/her hands following the examination. 				
<ul style="list-style-type: none"> • Records findings, including the presence or absence of ulcers, buboes, genital warts, and urethral discharge, noting color and amount. 				
<ul style="list-style-type: none"> • Asks the patient to turn his back towards him/her and bend over while he spreads his buttocks slightly. 				

TASK/ACTIVITY	CASES			COMMENTS
	1	2	3	
<ul style="list-style-type: none"> Looks at the anus for the presence of ulcers, warts, rashes, or discharge. 				
<ul style="list-style-type: none"> Washes his/her hands following the examination. 				
<ul style="list-style-type: none"> Records findings, including the presence or absence of ulcers, buboes, genital warts, and urethral discharge, noting color and amount. 				



6.1A: Prevention Message

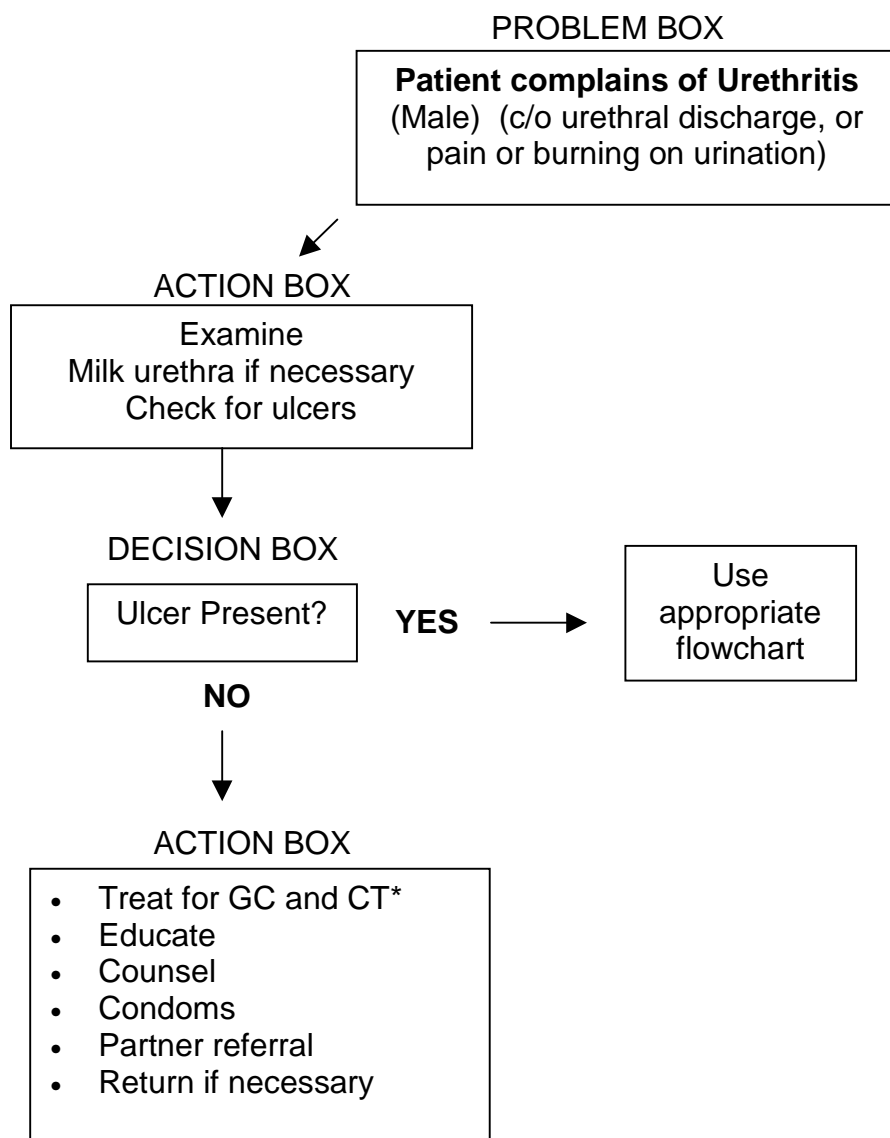
PREVENTION MESSAGE

Reduce the occurrence of STDs in the community through:

- ◆ prompt and correct treatment
- ◆ promotion of condoms
- ◆ prevention information
- ◆ negotiation skills

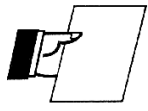


6.2A: Flowchart #1: Urethritis Syndrome

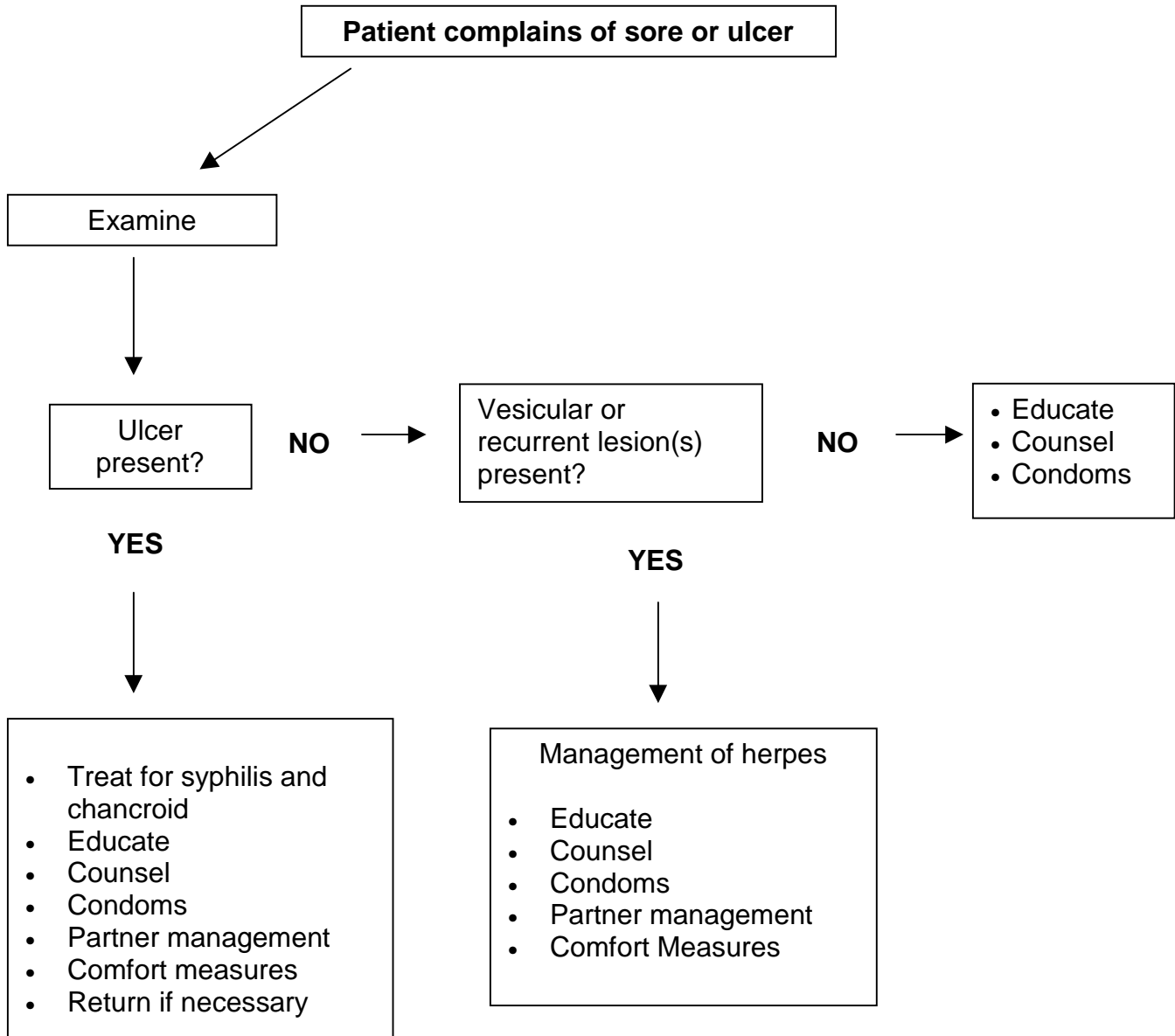


If a man has urinated in the past few hours, there may be no discharge visible. If he complains of discharge or burning, he should be treated anyway.

* **GC = gonorrhea**
CT = chlamydia trachomatis



6.2B: Flowchart #2: (Genital Ulcer Syndrome)

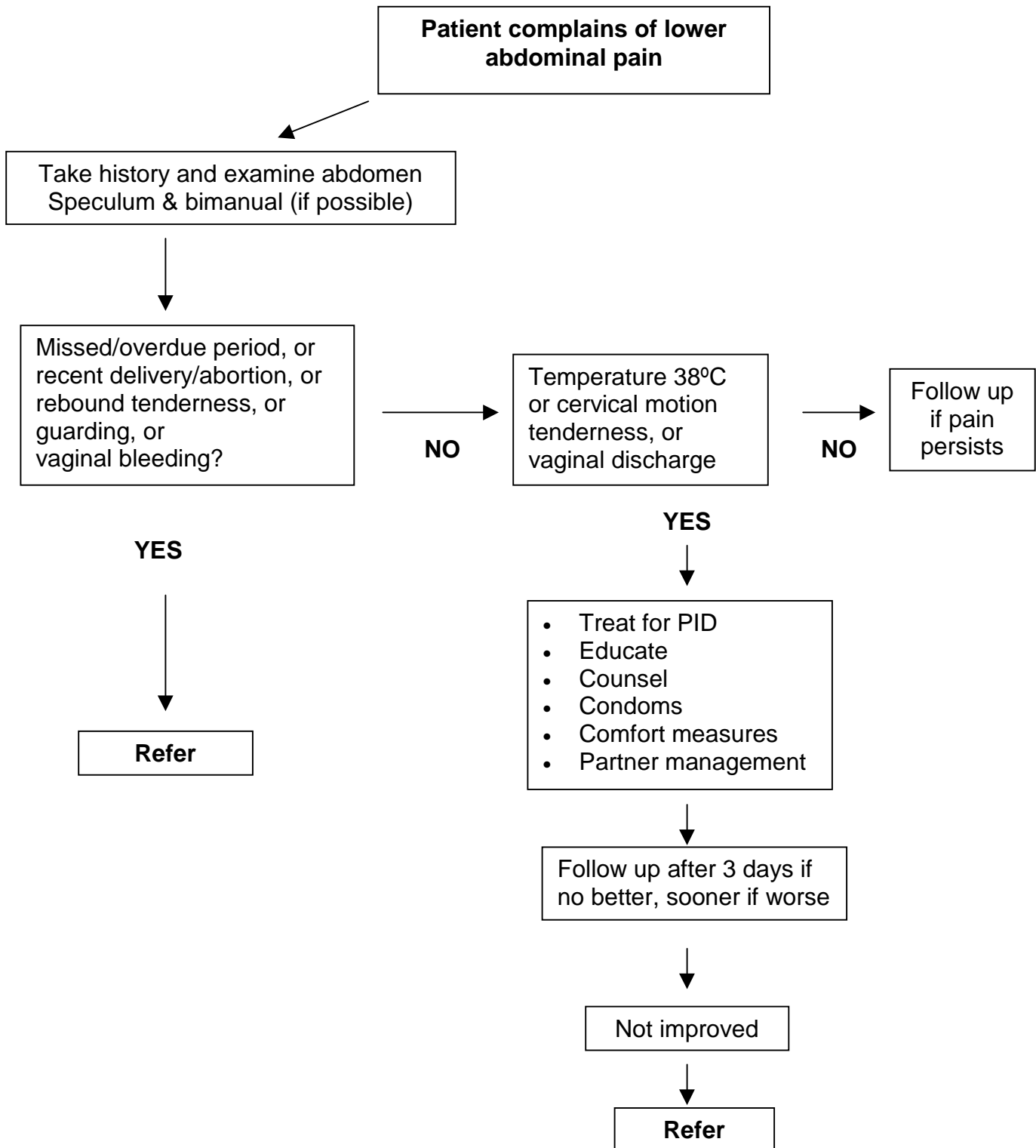


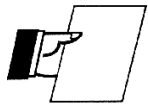
In men look at external genitalia, including the inner surface of the foreskin and the parts normally covered by the foreskin.

In women, examine the skin of the external genitalia: ask the patient to separate the labia so that you can look at the mucous surfaces for ulcers.

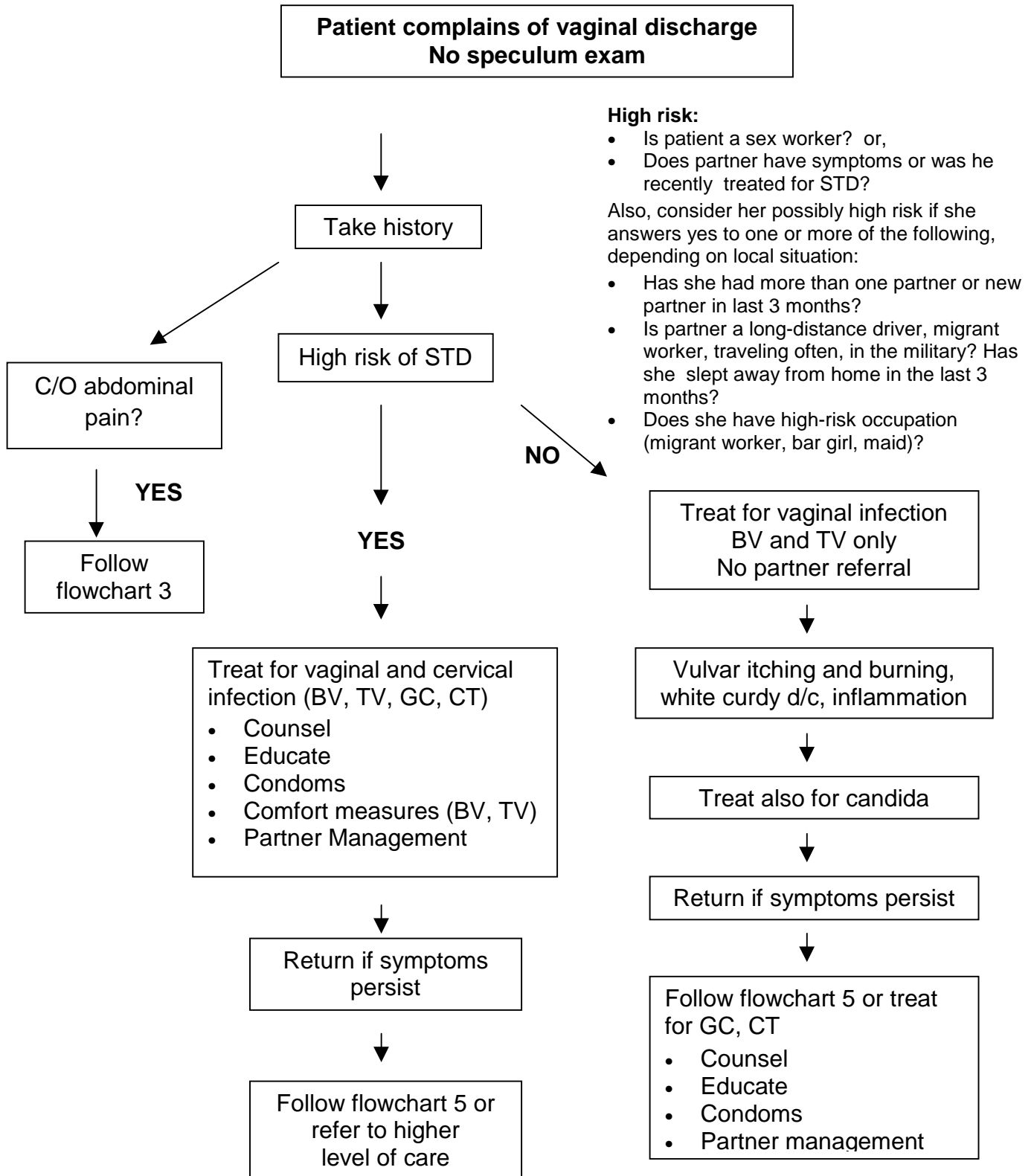


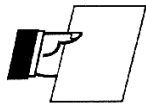
6.2C: Flowchart #3: (Lower Abdominal Pain)



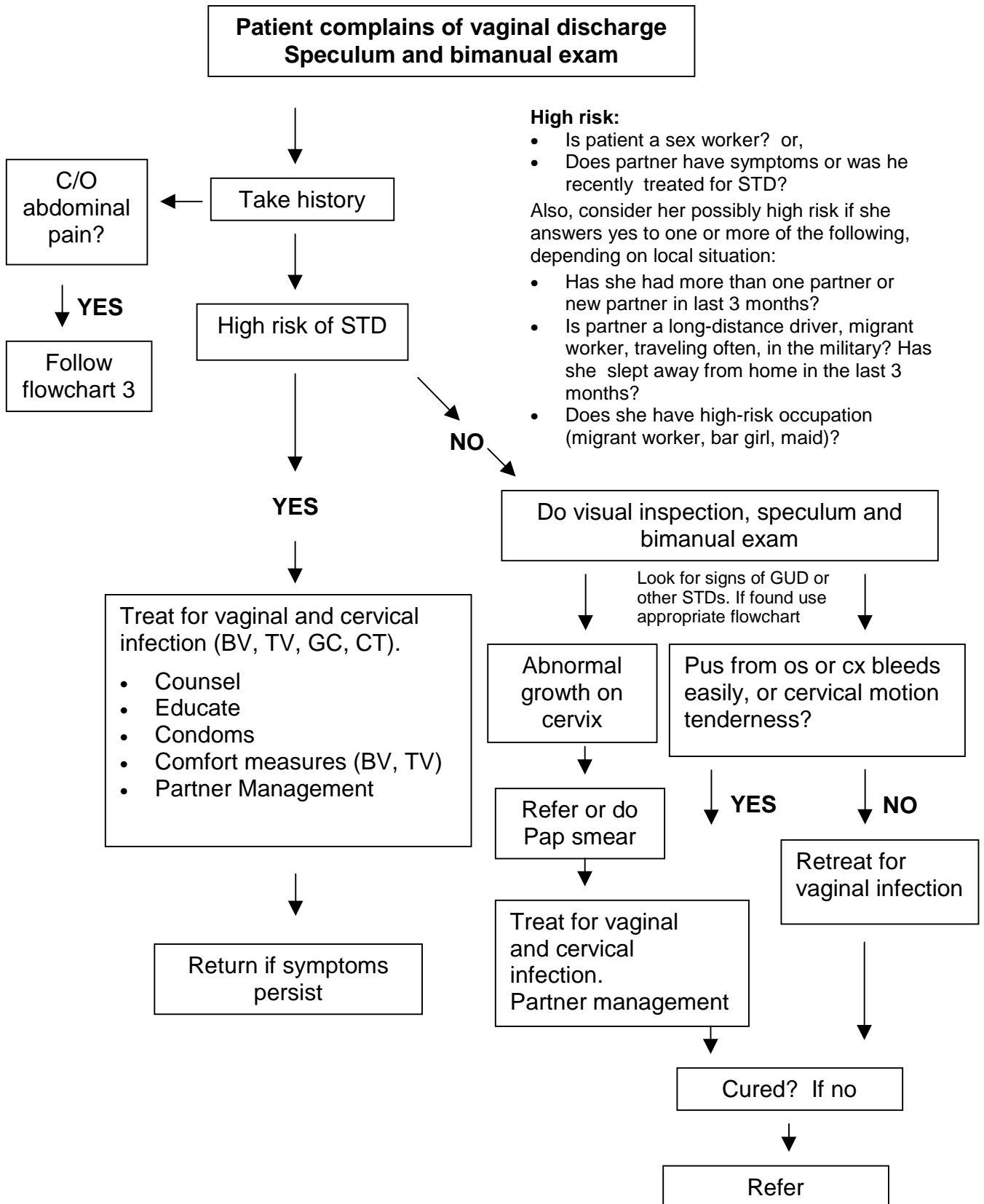


6.2D: Flowchart #4: (Vaginal Discharge Syndrome)





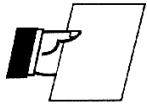
6.2E: Flowchart #5: (Vaginal Discharge Syndrome)





6.2F: Case Studies

1. A married man presents with a complaint of urethral discharge and says he has a few casual partners besides his wife. Which flow chart would you use? How would you manage his condition?
2. A young unmarried woman complains of a sore “down there.” She has had sexual intercourse for the first time 3 weeks ago. Which flow chart would you use? How would you manage her condition?
3. A woman presents with severe lower abdominal pain and fever which she has had for 2 days. She has not missed any menstrual periods. Which flow chart would you use? How would you manage her condition?
4. A woman presents with recent increase in vaginal discharge and has had a new partner who is a truck driver, in the past month. Which flow chart would you use? How would you manage her condition?

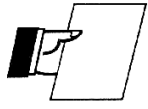


6.5A: Case Studies continued

4. A 19-year-old soldier was taken by his friends to a brothel two weeks ago; a few days later, he developed a thin watery discharge. He was treated at your clinic one week ago, but he still has burning on urination and discharge.

5. A 35-year-old widowed woman works in a roadside bar and occasionally has casual partners. She complains of burning and discharge for two days. She had a new partner one week ago.

6. A 40-year-old married woman was treated for vaginal discharge 8 days ago at your clinic, but she still has a discharge. Her husband is returning home tomorrow from the city where he works, and she would like to be cured.



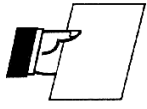
6.5A: Case Studies continued

7. A 19-year-old schoolgirl complains of lower abdominal pain and light bleeding with intercourse. She has one boyfriend who is considerably older than she is. She sometimes uses pills to prevent pregnancy after sexual intercourse. Her last normal period was 3 weeks ago. On exam you discover some yellow discharge from her cervix, cervical motion tenderness, and a swelling in her right side.

8. A 50-year-old businessman has had a thick, yellow discharge from his penis for 3 days, and urination is very painful. He wants to go home to the village to see his wife, whom he has not seen for 3 months, and would like to be rid of this problem.

9. A 20-year-old sex worker has developed a painful sore in her genital area. She tries to get all of her clients to use condoms, but is not always successful. On exam you notice 4 shallow, gray ulcers with irregular borders on her vulva and labia majora.

10. A 30-year-old, married truck driver noticed burning on urination 2 days ago. He is taking some tablets which he bought in the market. They seemed to help at first, but today the pain is so bad that he cannot pass urine.

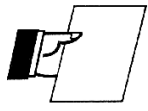


6.5A: Case Studies continued

11. A 30-year-old, healthy-appearing woman complains of a painful sore on her vagina. Her husband is her only partner. She has a fever and cannot pass urine because of the pain. On examination you find many small blisters filled with fluid on the labia majora and minora, and some small ulcers.

12. A 35-year-old farmer noticed a sore on his penis 3 days ago. It is not painful but he has had contact with a bar girl recently in another town, and he is concerned that he might have gotten AIDS.

13. A 42-year-old woman complains of occasional severe lower abdominal pain, nausea, lightheadedness, and spotting for the last month. She has had an IUD for 3 years without problems. Her husband visited from his job in a neighboring country 3 months ago. You note that she appears generally uncomfortable and ill. Her entire lower abdomen is tender. On speculum examination you do not see an IUD string. And her cervix is bluish. She has cervical motion tenderness and extreme pain on her left side.



7.1A: Mystery Shopping Exercise

Purpose: To put you in the shoes of your patient, whom you told has a STD that requires treatment, and for which she must spend her hard earned money.

Instructions:

1. Your group will be given a sum of money, and asked to find three different possible treatments for one STD syndrome.
2. Look for the medications in at least 3 kinds of establishments which sell medications (chemists, kiosks, clinics, hospitals, markets).
3. Choose **one** treatment regimen and purchase as much or all of the medications required as you can with the money you receive. Bring back your receipts.
4. Write down all the information required on your form to present to the group later. There will be a prize awarded for the group that finds the most effective regimen for its syndrome for the least amount of money.

Group I

Syndrome: Vaginal discharge, low risk with candida symptoms.

Treatment Regimen 1: Metronidazole 400 mg tablets, 5 tablets by mouth at one time (2 grams),

PLUS clotrimazole 200 mg pessaries, two vaginally for 3 days.

Treatment Regimen 2: Metronidazole 400 mg twice daily by mouth for 7 days,

PLUS miconazole 200 mg pessaries, two vaginally x 3 (need 6).

Treatment Regimen 3: Metronidazole 200 mg 10 tablets by mouth at one time,

PLUS nystatin pessaries of 100,000 units 2 vaginally for 7 days.



7.1B: Mystery Shopping Exercise continued

Purpose: To put you in the shoes of your patient, whom you told has a STD that requires treatment, and for which she must spend her hard earned money.

Instructions:

1. Your group will be given a sum of money, and asked to find three different possible treatments for one STD syndrome.
2. Look for the medications in at least 3 kinds of establishments which sell medications (chemists, kiosks, clinics, hospitals, markets).
3. Choose **one** treatment regimen and purchase as much or all of the medications required as you can with the money you receive. Bring back your receipts.
4. Write down all the information required on your form to present to the group later. There will be a prize awarded for the group that finds the most effective regimen for its syndrome for the least amount of money.

Group II

Syndrome: Vaginal discharge, high risk without candida symptoms.

Treatment Regimen 1: Metronidazole 400 mg tablets, 5 tablets by mouth at one time (2 grams),

PLUS doxycycline 100 mg by mouth twice daily for 7 days,

PLUS norfloxacin 800 mg one time by mouth.

Treatment Regimen 2: Metronidazole 400 mg twice daily by mouth for 7 days,

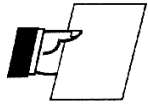
PLUS tetracycline 500 mg by mouth 4 times daily for 7 days,

PLUS ciprofloxacin 500 mg by mouth one time only.

Treatment Regimen 3: Metronidazole 200 mg 10 tablets by mouth at one time,

PLUS cefixime 400 mg by mouth one time,

PLUS amoxicillin 500 mg 3 times daily for 7 days.



7.1C: Mystery Shopping Exercise continued

Purpose: To put you in the shoes of your patient, whom you told has a STD that requires treatment, and for which he must spend his hard earned money.

Instructions:

1. Your group will be given a sum of money, and asked to find three different possible treatments for one STD syndrome.
2. Look for the medications in at least 3 kinds of establishments which sell medications (chemists, kiosks, clinics, hospitals, markets).
3. Choose **one** treatment regimen and purchase as much or all of the medications required as you can with the money you receive. Bring back your receipts.
4. Write down all the information required on your form to present to the group later. There will be a prize awarded for the group that finds the most effective regimen for its syndrome for the least amount of money.

Group III

Syndrome: Urethral discharge.

Treatment Regimen 1: Norfloxacin 800 mg by mouth at one time,
PLUS tetracycline 500 mg 4 times daily for 7 days.

Treatment Regimen 2: spectinomycin 2 grams single dose by IM injection,
PLUS erythromycin 500 mg 4 times a day for 7 days

Treatment Regimen 3: trimethoprim sulfamethoxazole (80/400) 10 tablets orally, once daily for 3 days,
PLUS doxycycline 100 mg twice daily for 7 days.



7.1D: Mystery Shopping Exercise continued

Purpose: To put you in the shoes of your patient, whom you told has a STD that requires treatment, and for which he must spend his hard earned money.

Instructions:

1. Your group will be given a sum of money, and asked to find three different possible treatments for one STD syndrome.
2. Look for the medications in at least 3 kinds of establishments which sell medications (chemists, kiosks, clinics, hospitals, markets).
3. Choose **one** treatment regimen and purchase as much or all of the medications required as you can with the money you receive. Bring back your receipts.
4. Write down all the information required on your form to present to the group later. There will be a prize awarded for the group that finds the most effective regimen for its syndrome for the least amount of money.

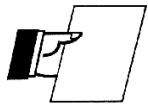
Group IV

Syndrome: Genital ulcer disease.

Treatment Regimen 1: Doxycycline 100 mg by mouth twice daily for 15 days,
PLUS ciprofloxacin 500 mg by mouth once only.

Treatment Regimen 2: Tetracycline 500 mg by mouth 4 times daily for 15 days,
PLUS trimethoprim sulfamethoxazole 80/400 mg, two tablets twice daily for 7 days.

Treatment Regimen 3: Erythromycin 500 mg 3 times daily for 7 days,
PLUS ciprofloxacin 500 mg by mouth once only.



7.1E: Mystery Shopping Exercise continued

Purpose: To put you in the shoes of your patient, whom you told has a STD that requires treatment, and for which she must spend her hard earned money.

Instructions:

1. Your group will be given a sum of money, and asked to find three different possible treatments for one STD syndrome.
2. Look for the medications in at least 3 kinds of establishments which sell medications (chemists, kiosks, clinics, hospitals, markets).
3. Choose **one** treatment regimen and purchase as much or all of the medications required as you can with the money you receive. Bring back your receipts.
4. Write down all the information required on your form to present to the group later. There will be a prize awarded for the group that finds the most effective regimen for its syndrome for the least amount of money.

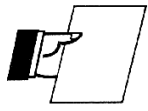
Group V

Syndrome: Abdominal pain.

Treatment Regimen 1: Norfloxacin 800 mg by mouth one time only,
PLUS doxycycline 100 mg by mouth twice daily for 10 days,
PLUS metronidazole 400 mg by mouth twice daily for 10 days.

Treatment Regimen 2: Cefixme 400 mg by mouth one time only,
PLUS metronidazole 400 mg by mouth twice daily for 10 days,
PLUS tetracycline 500 mg by mouth 4 times a day for 10 days.

Treatment Regimen 3: trimethoprim sulfamethoxazole (80/400) 5 tablets by mouth twice daily for 3 days, metronidazole by mouth 400 mg twice daily for 10 days.
PLUS erythromycin 500 mg by mouth 4 times daily for 7 days.



7.1F: Mystery Shopping Exercise continued

Purpose: To put you in the shoes of your patient, whom you told has a STD that requires treatment, and for which she must spend her hard earned money.

Instructions:

1. Your group will be given a sum of money, and asked to find three different possible treatments for one STD syndrome.
2. Look for the medications in at least 3 kinds of establishments which sell medications (chemists, kiosks, clinics, hospitals, markets).
3. Choose **one** treatment regimen and purchase as much or all of the medications required as you can with the money you receive. Bring back your receipts.
4. Write down all the information required on your form to present to the group later. There will be a prize awarded for the group that finds the most effective regimen for its syndrome for the least amount of money.

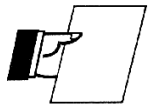
Group VI

Syndromes: Genital herpes AND vaginal discharge high risk.

(Two treatment regimens only)

Treatment Regimen 1: Acyclovir capsules 200 mg by mouth 5 times daily for 10 days,
PLUS metronidazole 400 mg 5 tablets by mouth all at once,
PLUS clotrimazole pessary 500 mg vaginally once only,
PLUS doxycycline 100 mg by mouth twice daily for 7 days,
PLUS norfloxacin 800 mg by mouth one time only.

Treatment Regimen 2: Acyclovir capsules 200 mg by mouth 5 times daily for 5 days,
PLUS miconazole pessaries 200 mg 2 vaginally each night for 3 nights (6 pessaries),
PLUS metronidazole 400 mg 5 tablets by mouth all at once,
PLUS tetracycline 500 mg 4 times daily for 7 days,
PLUS kanamycin 2 grams by single dose IM injection.



7.1G: Mystery Shopping Reporting Form

Group: _____ Regimen purchased: _____

Syndrome: _____

Type of vendor: _____

Name of drug #1: _____

Where purchased: _____

Cost: _____

Name of drug #2: _____

Where purchased: _____

Cost: _____

Name of drug #3: _____

Where purchased: _____

Cost: _____

Name of drug #4 (if purchased) : _____

Where purchased: _____

Cost: _____

Problems or comments: _____



7.1H: Treatment Options for Management of RTIs²

General Comfort Measures for RTIs

1. Sit in a pan of clean, warm water for 15 minutes, 2 times a day, until improved. If candida is suspected, add lemon juice, vinegar, yogurt, or sour milk to the pan of warm water.
2. Avoid intercourse while symptoms are present. If you must have sex, make sure condoms are used.
3. Try to wear loose underclothes made of cotton, which let air circulate around the genitals.
4. Wash underclothes daily and dry them in the sun if possible. (This helps kill organisms which may be left there from vaginal discharge.)
5. Take mild pain medication if needed such as aspirin, paracetamol, or ibuprofen.
6. If genital ulcers are present and passing urine is painful, pour clean water over the genital area while urinating, or sit in a pan of cool water while urinating.

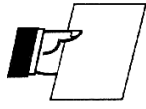
According to WHO, preferred criteria for the selection of STD drugs are:

- high efficacy
- low cost
- acceptable toxicity and tolerance
- organism resistance unlikely to develop or likely to be delayed
- single dose
- oral administration
- not contraindicated for pregnant or breastfeeding women

Appropriate drugs should be included in the national Essential Drugs list, and in choosing drugs, consideration should be given to the capabilities and experience of health personnel.

² Sources:

Burns, A.A., R. Lovich, J. Maxwell, and K. Shapiro. 1997. *Where women have no doctor: a health guide for women*. Berkeley, California: Hesperian Foundation. World Health Organization (WHO). Global Programme on AIDS. 1997. *Management of sexually transmitted diseases*. Geneva, WHO.



7.1H: Treatment Options for Management of RTIs continued

VAGINITIS

Treat for Bacterial Vaginosis (BV) and Trichomonas Vaginalis (TV). If there are symptoms or signs of *Candida albicans* (patient complains of vulvar itching or burning, and/or a curdy white discharge is seen, or vaginal inflammation), treat for candidiasis as well with a second drug.

BV and TV

Recommended Treatment

Metronidazole treats both infections. It often comes in 200 and 400 mg tablets to take by mouth. In some places, vaginal pessaries are available, and these are also effective. Give 2000 mg (2 grams) by mouth all at once. (This is five 400 mg tablets.) You can give 400 mg twice a day for 7 days instead.

Alternative Treatment

Tinidazole is similar to metronidazole and used for the same infections. It has fewer side effects, but it usually costs more than metronidazole.

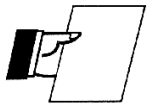
Note: Metronidazole is safe throughout pregnancy, even in the first trimester.³ Common side effects are a metallic taste in the mouth, dark urine, upset stomach or nausea, and headache. Because of side effects, tolerance and compliance are often poor for the 7-day dose, although it might be more effective. Start with the single dose for better compliance. Alcohol should never be taken when on metronidazole as it can cause a severe reaction.

Comfort Measures

Itching and discharge are the primary symptoms.

1. Sitting in a pan or bath of clean, water as often as needed.
2. Changing underwear often.
3. Avoiding intercourse while symptoms are present.

³ Burtin, P., A. Taddio, O. Ariburnu, T.R. Einarson, and G. Koren. 1995. Safety of metronidazole in pregnancy: a meta-analysis. *American Journal of Obstetrics and Gynecology* 172(2 Pt 1): 525-529.
Pathfinder International



7.1H: Treatment Options for Management of RTIs continued

Candida

Recommended Treatment

Clotrimazole comes in 200 mg and 500 mg pessaries (vaginal suppositories). Put 2 200 mg pessaries high in the vagina each night for 3 nights. Or put one 500 mg pessary in the vagina for one night only. This is a very effective treatment and often the least costly.

Alternative Treatment

Miconazole 200 mg pessaries can be used in the same way. It is effective but often more expensive.

or

Nystatin pessaries of 100,000 units: Put 1–2 high in the vagina each night for 7 nights. For many women, this medication does not work well. (Effectiveness is about 70%.) Nystatin may still be costly.

or

Gentian violet 1% liquid: Soak clean cotton wool and put high into the vagina each night for 3 nights. Remove the cotton each morning. It may be less effective, but it is cheap and available. Gentian violet will stain clothing purple.

or

Vinegar: Mix 3 tablespoons of clear vinegar with 1 liter or quart of boiled, cool water (or 1 tablespoon of vinegar in 1 cup of water). Soak a piece of clean cotton wool in the mixture and put it high into the vagina each night for 3 nights. Remove the cotton each morning. Vinegar may be less effective, but it is cheap and available.

Comfort Measures

Follow general comfort measures (above).

CERVICITIS

Treat for both gonorrhea and chlamydia with norfloxacin and doxycycline. Treatment should be given for vaginitis as well (above and in flow charts), since a woman may have both cervicitis and vaginitis at the same time.



7.1H: Treatment Options for Management of RTIs continued

Gonorrhea⁴ (including Bartholin's Gland Infection)

Recommended Treatment

Norfloxacin⁵: Take single doses 800 mg by mouth. Do not use norfloxacin if patient is pregnant or breastfeeding.

Alternative Treatment

Ciprofloxacin: Take single dose 500 mg by mouth. Do not use if patient is pregnant or breastfeeding.

or

Ceftriaxone: 250 mg single dose by intramuscular injection.

or

Cefixime: 400 mg by mouth one time only.

or

Spectinomycin: 2 g single dose by intramuscular injection.

or

*Trimethoprim (80 mg) sulfamethoxazole (400 mg): 10 tablets orally, once daily for 3 days.

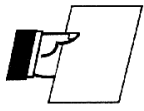
or

*Kanamycin: 2 g single dose by intramuscular injection. Do not use if pregnant or breastfeeding.

**These two drugs may be useful in some countries depending on the prevalence of resistant gonococci. They should only be used in areas where in vitro resistance rates are low and monitored regularly. In addition, second-line treatments should be available with recommended drugs.*

⁴ A large proportion of gonorrhea worldwide is now resistant to penicillins, tetracyclines, and other older antibiotics which can therefore no longer be recommended for treatment of gonorrhea.

⁵ Norfloxacin is now more available and cheaper in many countries than ciprofloxacin due to public sector pricing.



7.1H: Treatment Options for Management of RTIs continued

Comfort Measures

1. Sitting in a pan of warm water for 15 minutes 4 times daily;
or
Soaking a cloth in clean, hot water and place it on the swelling as often as possible until the swelling opens and drains, or goes down.
2. Avoiding sexual intercourse until all symptoms are gone and treatment is finished.

Chlamydia

Recommended Treatment

Doxycycline: 100 mg by mouth twice daily for 7 days. Do not use if patient is pregnant or breastfeeding. Usually widely available, it is less costly than tetracycline. Side effects of nausea and vomiting are less than with tetracycline, and compliance is better. Take with food but not milk.

Alternative Treatment

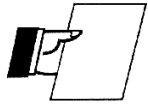
Tetracycline: 500 mg by mouth 4 times daily for 7 days. This dose is difficult to tolerate because of high incidence of stomach upset, and compliance is often poor. Do not use if patient is pregnant or breastfeeding.

If patient is pregnant or breastfeeding, use one of these medications instead:

Amoxicillin: 500 mg 3 times a day for 7 days. Should be relatively inexpensive and available.

or

Erythromycin: 500 mg 4 times a day for 7 days. This dose is difficult to tolerate because of side effects of nausea and vomiting. Take with food.



7.1H: Treatment Options for Management of RTIs continued

URETHRAL DISCHARGE IN MEN

Recommended Treatment

Norfloxacin: Single dose 800 mg by mouth.

plus

Doxycycline: 100 mg twice daily for 7 days.

Alternative Treatment

Alternative treatment for urethral discharge in men is the same as treatment of cervicitis in women.

Choose one drug each for gonorrhea,

plus

One drug for chlamydia.

LOWER ABDOMINAL PAIN/PID

Usually 3 medications should be taken for pelvic infection, which is often caused by a mixture of different bacteria.

Recommended Treatment

Norfloxacin: 800 mg by mouth one time only,

plus

Doxycycline: 100 mg by mouth 2 times daily for 10 days,

plus

Metronidazole 400 mg by mouth 2 times daily for 10 days.

Alternative Treatment

In place of norfloxacin you can substitute any one of these drugs **plus** doxycycline or a substitute, **plus** metronidazole:

Ceftriaxone: 250 mg single dose by intramuscular injection. This drug is costly but highly effective. It may not be available.



7.1H: Treatment Options for Management of RTIs continued

or

Cefixime: 400 mg single dose by mouth. Costly but highly effective. Cefixime may not be available.

or

Co-trimoxazole: 80/400 5 tablets 2 times daily for 3 days. This drug is inexpensive and available but may not be as effective as other alternatives.

or

Ciprofloxacin: 500 mg single dose by mouth. Do not use if patient is pregnant or breastfeeding. It is costly but highly effective. Ciprofloxacin may not be available.

or

Kanamycin: 2 g single dose by intramuscular injection. Kanamycin can cause ringing in the ears or deafness. Do not use if patient is pregnant or breastfeeding.

In place of doxycycline, it is possible to substitute any one of these drugs **plus** norfloxacin or a substitute, **plus** metronidazole:

Tetracycline: 500 mg 4 times daily by mouth for 10 days. This dose is difficult to tolerate because of high incidence of stomach upset and compliance is often poor. Take with food (but not milk). Do not use if patient is pregnant or breastfeeding.

or

Erythromycin: 500 mg by mouth 4 times daily for 7 days. This dose is difficult to tolerate because of high incidence of stomach upset and compliance is often poor. Take with food.

Comfort Measures

1. Resting with a hot water bottle or other heat source on the abdomen.
2. Pain medications (aspirin, paracetamol, ibuprofen, and others).
3. Avoiding sexual intercourse until all symptoms are gone and treatment is finished.

GENITAL ULCERS

These medications treat early syphilis and chancroid. Since it is very hard to tell the cause of genital sores, treat for both syphilis and chancroid.



7.1H: Treatment Options for Management of RTIs continued

Syphilis

Recommended Treatment

For early syphilis (primary, secondary, or latent of not more than two years' duration), benzathine penicillin: 2.4 million IU at a single session in two intramuscular injections at different sites because of the large volume of this dose.

Alternative Treatment

Doxycycline: 100 mg by mouth twice daily for 15 days. Do not use if patient is pregnant or breastfeeding.

or

Tetracycline: 500 mg by mouth 4 times daily for 15 days. This dose is often difficult to tolerate because of high incidence of stomach upset and compliance is often poor. Take with food (but not milk). Do not use if patient is pregnant or breastfeeding.

or

Erythromycin: 500 mg 4 times daily for 15 days. This is the only medication other than penicillin that is safe to use for syphilis during pregnancy or while breastfeeding. If erythromycin is used to treat syphilis, it will also treat chancroid (below).

Comfort Measures

1. Washing daily (gently) with mild soap and water to prevent secondary infection.
2. Sitting in a pan or bath of clean water (warm or cool) as often as needed.
3. Making a compress of a cloth soaked in clean water and black tea and applying it to the sores a few times a day.
4. Putting ice directly on sores if they are painful.
5. Avoiding sex until sores have healed to prevent spread of infection in yourself and your partner.

Chancroid

Recommended Treatment

Erythromycin: 500 mg 3 times daily for 7 days.



7.1H: Treatment Options for Management of RTIs continued

Alternative Treatment

Ciprofloxacin: 500 mg by mouth one time only. Do not use if patient is pregnant, breastfeeding, or under 16 years of age.

or

Ceftriaxone: 250 mg single dose by intramuscular injection.

or

Kanamycin: 2 g single dose by intramuscular injection. Do not use if patient is pregnant or breastfeeding.

or

Trimethoprim: (80 mg) sulfamethoxazole (400 mg) 2 tablets by mouth twice daily for 7 days.

Comfort Measures

Comfort measures for chancroid are the same as those for syphilis – see above.

Genital Herpes

Recommended Treatment

There is no cure for genital herpes but in severe infections that come back often the medication acyclovir may make sores heal faster and recur less often. It is most effective taken by mouth—topical preparations are not effective. Acyclovir is usually costly.

At the first sign of herpes infection (tingling, burning, pain and blisters), start taking acyclovir capsules 200 mg 5 times a day for 5-10 days.

Comfort Measures

Genital herpes can be very painful, especially primary infections in women. Comfort measures include:

1. Sitting in a pan or bath of clean, cool water as often as needed.
2. Mixing water and baking soda or corn starch into a paste and putting it on the sore area.



7.1H: Treatment Options for Management of RTIs continued

3. Making a compress of a cloth soaked in clean water and black tea and applying it to the sores a few times a day.
4. Putting ice directly on the sore for five minutes at a time as soon as symptoms begin.
5. Pain medications (by mouth) such as aspirin, paracetamol, ibuprofen and others.
6. Avoiding sex until vesicles have healed, especially if the vesicles are beyond the area protected by condom, to prevent spread of infection in yourself and your partner.

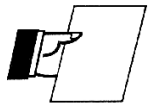
Genital Warts

Genital warts may go away on their own without treatment, but they are contagious and can usually be successfully treated. Warts may grow faster during pregnancy, and if extensive they can cause problems with delivery. Freezing with liquid nitrogen is also effective if the equipment is available. Caution should be used with all medications used to treat warts—they will cause ulceration if dropped onto normal skin.

Treatment

1. Put some petroleum gel or other greasy ointment on the skin around each wart to protect the healthy skin. With a small cotton swab or stick, carefully put on very small amounts of:
 - a. trichloroacetic acid (TCA), or bichloroacetic acid (BCA) a little bit at a time until the wart turns white,
or
 - b. a 20% solution of podophyllin a little at a time until the wart turns brown. Podophyllin must be washed off by the patient 6 hours later. **DO NOT USE PODOPHYLLIN ON PREGNANT WOMEN.**

Several treatments are usually necessary to get rid of all the warts. Treatment can be repeated after one week as often as needed, although less acid should be used if the area being treated has not healed. If there is too much irritation, wait longer in between treatments.



7.1H: Treatment Options for Management of RTIs⁶ continued

Genital Warts in Men

Recommended Treatment

Men can be treated in the same way, although urethral warts should only be treated by someone with experience.

Information to Give the Patient:

- If the treatment is working, it will cause a painful sore where the wart used to be.
- Keep the sores clean and dry between treatments.
- Do not have intercourse until the warts are gone, or use condoms.

Comfort Measures

If there are sores after wart treatment, try the following:

1. Wash daily with mild soap and water to prevent secondary infection.
2. Sit in a pan or bath of clean water (warm or cool) as often as needed.
3. Avoid sex until sores have healed.

⁶ Sources:

BURNS, A.A., Lovich, R., Maxwell J., and Shapiro, K. Where women have no doctor: a health guide for women. Berkeley, California, Hesperian Foundation, 1997. 583 p.; and WORLD HEALTH ORGANIZATION (WHO). GLOBAL PROGRAMME ON AIDS. Management of sexually transmitted diseases. Geneva, WHO, 1997.