

The Burning Issue

Facilitator's Guide

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Topic: Sexually Transmitted Disease

Abstract:

Sexually active adolescents are at high risk of unplanned pregnancy and sexually transmitted diseases (STDs). Clinicians must know how to take a sexual history from an adolescent, evaluate and treat STDs, and counsel an adolescent about abstinence and safer sex practices. This case presents the story of Darius, a 17-year-old high school junior with a history of involvement in sexual risk behaviors, including sexual intercourse with two partners. During his routine preventive services visit, his first-catch urine specimen is noted to be 1+ for leukocyte esterase. The clinician needs to evaluate and treat Darius for a STD.

Goal:

To provide learners with a basic understanding of sexually transmitted diseases in males.

Objectives:

By the end of this session, learners will be able to:

1. Take a sexual history from an adolescent
2. List risk factors for sexually transmitted diseases.
3. Describe symptoms, diagnosis, and management of sexually transmitted diseases in males.
4. Counsel an adolescent about abstinence and about proper condom use.

Prerequisite Case:

“But All of My Friends Do It” (Middle Adolescent Health Screening)

Related Cases:

“Michael’s Disclosure” (HIV and the Adolescent)
“New World, Old Worries” (Young Adolescent Health Screening)
“Amy Goes to College” (Older Adolescent Health Screening)
“The Hidden Agenda” (Contraception)
“The Telephone Call” (Oral Contraceptive Scenarios)
“Decisions to be Made” (Teen Pregnancy)



Themes:

Adolescent Health

Key Words:

Adolescent health services, confidentiality, sexually transmitted diseases, urethritis, condoms, Chlamydia infections, health education, risk factors, sexual behavior, sexuality, screening, leukocyte esterase

Bright Futures Core Concepts:

While all of the Core Concepts are included in each case, this particular case can be used to highlight communication, partnership, advocacy, and prevention/health promotion.

Materials Provided:

- Facilitator's Guide
- 5-part Case Narrative: Part I, Part II, Part III, Part IV, Epilogue
- Handout #1: Bright Futures Health Supervision Questions in HEADSS Format
- Handout #2: Darius's Dipstick Urinalysis Lab Slip
- Handout #3: Stages of Change
- Handout #4: STD Detection in Adolescent Males
- Bibliography

Facilitator Preparation:

Facilitators should thoroughly review this guide and the other materials provided. They should also contact their own state Department of Public Health (or equivalent) to determine what the laws are regarding reporting, treating, and notifying partners, when sexually transmitted diseases are diagnosed.

At the end of this guide we have included a section entitled, "**Independent Learning/Prevention Exercises**," that will further stimulate group and individual education on this topic.

Suggested Format for a One Hour Session:

We anticipate that case facilitators will modify implementation of the case session to best fit their educational setting and learners. For detailed recommendations on case facilitation, please see the chapter entitled, "A Brief Guide to Facilitating Case Discussion," found in *The Case Teaching Method; and Growth in Children and Adolescents* (book 1 of this series).

Introduction: Sexually transmitted diseases (STDs) are the most common infectious diseases in the United States today and adolescents are particularly likely to be affected. The annual cost of STDs in the United States is estimated to be well in excess of \$5 billion.

Nearly two-thirds of all STDs occur in people younger than 25 years of age. Health problems caused by STDs tend to be more severe and more frequent in girls than in

boys, in part because the frequency of asymptomatic infection means that many girls do not seek care until serious problems have developed.

Chlamydial and gonococcal infections are common STDs, with an estimated 3 million new cases of chlamydia and approximately 650,000 cases of gonorrhea occurring each year in this country. Both infections can cause pelvic inflammatory disease (PID). Another STD, human papillomavirus infection (HPV), is associated with cervical and other anogenital cancers.

Open the Discussion: Introduce the case title and the session goal. Explain that this will be an interactive case discussion and not a lecture. Distribute Part I of the case and ask one or more of the participants to read it aloud.

Part I

Darius, a 17 year old in the eleventh grade at the local high school, presents to your office for a check-up. He has been a patient of yours since age 12 and his last visit was one year ago for a routine sports physical. From the outset, he appears uncomfortable, looking down at the floor, mumbling, and shifting around in his chair. You recall he lives in a suburban area with his single mother and two younger sisters. Through your questioning, you find out that he gets B's in school and is planning on going into business. He is the quarterback on the football team and drinks alcohol occasionally with his friends but not during the season. Darius currently is sexually active with two different female partners, with his last sexual encounter approximately one week ago.

Following this reading, ask all participants “*So what do you think about this case? What would you like to focus on during our discussion today?*” List agenda items on a blackboard or flipchart. Then use the questions below to guide the discussion. Remember that the key to successfully leading a small group is facilitation of the discussion rather than lecture. Draw as many participants as possible into the discussion. Allow silences while group members think about questions. Present material from the discussion guide only when needed to complement or redirect the group discussion.

Guiding Questions for Discussion:

How might you assess potential risk factors for Darius? What other questions would be important to ask regarding this patient’s peer activities, experience with substance use, as well as family and school issues? The trigger questions from Bright Futures which cover social and emotional development, physical development and health habits, sexual development, family functioning and school performance can be asked using the HEADSS format (H= Home, E= Education, A= Activities, D= Drugs and Depression, S= Sex, S= Suicide).

Distribute and review Handout #1: Bright Futures Health Supervision Questions in HEADSS format. Further information on routine health screening may be found in the prerequisite case, “*But All My Friends Do It,*” which provides a basic understanding of periodic health screening for middle adolescents and the skills needed to counsel adolescents about risky behaviors.

What further questions should be asked to assess whether this patient may have a sexually transmitted disease? These questions include:

Exposure:

- What preventive methods have been used? For STD's? For birth control? Ask specifically whether condoms have been used each and every time. For example, *“Do you use condoms? When was the last time you had sex without a condom? Did you use a condom the last time you had sex? Do you think you use condoms some of the time? Most of the time? What percentage of the time do you use condoms? Have you ever been exposed to a STD? Have you ever had a STD? Have you ever been forced to have sex? Tell me about your partners. Do you have sex with men, women, or both?”* Often teens will neglect to inform you about the one time the condom was forgotten, a partner was treated or had symptoms, or the contact was same sex.

Symptomatology

- Ask about dysuria, discharge, frequency of urination, dribbling, scrotal (epididymal) pain, other lesions, pruritis.

Facilitators should ask participants about specific wording of questions they have found to be most helpful.

Distribute Part II of the case and have participant(s) read it aloud.

Part II

Darius sheepishly informs you that he has neglected to use condoms on several occasions. He denies any penile discharge, but reports, *“Actually, for the past week or so it kind of burns when I pee.”*

On physical exam, Darius is a tall, muscular young man in no acute distress. He is afebrile with a normal heart rate and blood pressure. His abdomen is soft with normal bowel sounds and no suprapubic tenderness; there is no costovertebral angle (CVA) tenderness. He has Tanner V genitalia with testes descended bilaterally. There is no scrotal erythema, warmth, swelling or tenderness. No penile lesions are visible but you note mild erythema at the urethral meatus. Darius has shotty, nontender inguinal lymphadenopathy bilaterally. The remainder of his exam is within normal limits.

Identify and discuss “red flag” risk factors of an STD. Lack of or improper condom use, multiple partners, a partner with an STD or symptoms, and a previous STD are all risk factors for STDs.

What is your differential diagnosis? What is most likely? Facilitators may wish to generate a list on the blackboard as learners offer ideas.

The differential diagnosis includes:

- Urethritis: Chlamydia, Gonorrhea, Ureaplasma, Herpes simplex virus
- Tinea cruris
- Urinary tract infection
- Epididymitis
- Trauma

The most likely diagnosis is urethritis, caused by Chlamydia trachomatis and/or N. gonorrhoeae.

Distribute Part III of the case and have participant(s) read it aloud. Distribute Handout #2: Darius's Dipstick Urinalysis Results

Part III

Your assistant brings you the dipstick result of screening Darius' first catch urine that you obtain at the time of each patient's annual visit. (See Handout #2.)

What does leukocyte esterase tell you? A first catch urine (the first 10cc of a voiding) with 1+ or 2+ leukocyte esterase (LE) by dipstick has a 72-100% sensitivity and 83-100% specificity for N. gonorrhoeae or C. trachomatis urethral infection in males.^{3,4,5} Some chlamydial infections may be missed. In male patients who are not symptomatic, LE screening has been shown to be a painless and cost-effective screen.^{4,8}

What is the next step for definitive diagnosis of gonorrhea or chlamydia? If there is apparent urethral discharge, a swab of the discharge can be rolled onto a slide which can then be gram stained to examine for gram negative intracellular diplococci (diagnostic of gonorrhea in males). The swab is also either plated directly on Thayer Martin media (for N. gonorrhoeae) or sent as a DNA probe. If there is no urethral discharge, culture of the sediment of the spun urine or even unspun first catch urine has a 90-95% sensitivity in detecting N. gonorrhoeae.⁵

A diagnosis of chlamydia can be made by urethral or urine testing. A urethral dacron swab must be inserted one inch (2-3 cm) and rotated fully for 10 seconds or 10 rotations in order to obtain cellular components. The swab can be cultured (70-80% sensitivity) or other tests such as EIA (74-89% sensitivity) or DNA probe (71-95% sensitivity) can be used. Polymerase chain reaction (PCR) and ligase chain reaction (LCR) tests and Transcription Mediated Amplification (TMA) tests are extremely sensitive for detecting chlamydia in urine. If the cost of LCR/TMA becomes low enough, it may become the preferred method for screening. Some physicians may treat this patient with a positive LE without additional tests; however, tracing of contacts and assuring that the right organism is treated would be more difficult.

What would be your next step? Do you recommend treatment? Why or why not?

The CDC recommends treatment for patients when a diagnosis of a treatable STD is considered likely.¹

PRO:

1. He is physically in your presence; you may not be able to find him at a future time.
2. He is symptomatic and the 1+ LE is strongly in favor of a STD.
3. You can actually observe him taking medication (if you opt for one dose therapy).
4. You may lessen the spread of chlamydia or gonorrhea to partners.

treated. In addition, if his partner is not treated, the likelihood of reinfection for him is dramatically increased.

How would you counsel this patient regarding prevention of future infections?

Condoms should always, always, ALWAYS be worn to help prevent transmission of STDs. Proper usage includes:

- a) Using condoms made of latex, not animal skins
- b) Not using petroleum based lubricants with latex
- c) Not using a condom more than once
- d) Placing the condom over an erect penis prior to vaginal contact with a reservoir tip left at the end to collect the semen
- e) After intercourse, withdrawing the penis with one hand grasping the condom at the base to prevent leakage

The facilitator can have the learners role play teaching a teen how to use a condom and how to delay or say “no” to sexual intercourse.

To change behaviors, the adolescent needs to:

- Perceive STDs to be a personal threat (Helps to know someone with an STD)
- Understand the reasons for taking preventive action
- Have a sense of personal efficacy
- Have the skills (technical and social skills)

The provider needs to provide guidance/support to help teens feel change is a possibility. Teens need to know where condoms are available. The knowledge level, reactions, and options for each patient should be reviewed. Education should be simplified to 2-3 points.

The stages of change model by Prochaska and DiClemente (1982)⁷ has been used as a way to conceptualize behavior changes. The facilitator should ask if anyone has heard of this model and then draw the various stages on the blackboard/flipchart or distribute the Handout #3: Stages of Change. Role play is an effective strategy.

What would be your recommendations for further tests and follow-up of this patient?

A blood test for syphilis (RPR or VDRL) should be obtained in adolescents diagnosed with a STD. Adolescents should also receive discussion and offered referral for HIV counseling and testing. The difference between confidential versus anonymous testing resources should be outlined.

You should also recommend the patient return in 4-6 weeks for rescreening for gonorrhea and Chlamydia and to see if partners have been treated and condoms are being used. You should also strongly recommend completion of the Hepatitis B vaccination series. Be forewarned that most adolescent males will not return for a repeat urethral swabbing! You can also check U/A for leukocyte esterase or LCR/PCR for Chlamydia in a urine

specimen. A screening first catch U/A can be performed at annual preventive services visits for all sexually active males. Adolescent males should not be overlooked for the scheduling of maintenance health visits!

Distribute Handout #4: STD Detection in Adolescent Males, and review the contents. Distribute the Bibliography page and Epilogue. Ask someone to read the Epilogue aloud.

Epilogue

By the end of the visit, Darius agrees to inform his partners of their exposure. Several days later, you are notified that the test for chlamydia is positive, and culture for gonorrhea is negative. The serology for syphilis is negative, and Darius agrees to make an appointment for HIV counseling and testing. At follow-up he states that he is “*always*” using condoms.

Refer back to group’s learning agenda and summarize the key teaching points that were made. This will give the group a sense of accomplishment, and emphasize the important messages. Suggest further sources of reading or other information if there are agenda items that were not covered in the discussion.

Independent Learning/Prevention Exercises: Facilitators may wish to assign “Independent Learning/Prevention Exercises” to the group, particularly if time constraints hinder the completion of the case. The following list includes suggestions to explore the available community resources that focus on Sexually Transmitted Diseases, as well as other avenues of pertinent interest that can be integrated during or after the session. If the exercise is done in the absence of the facilitator, learners should take notes on their experience, then discuss with a faculty member for feedback.

1. Contact the Department of Public Health (DPH), STD division, to discuss their screening and prevention methods/activities.
2. Determine how partner notification/contact tracing is done in your state.
3. Go to a drug store and find where the condoms are, what they are shelved with, and what might deter teens from purchasing them.
4. Practice how to teach teens to use a condom and how to say “no” to sexual intercourse.
5. Follow-up with your next few patients who are diagnosed with STDs as to whether or not they were able to notify their partner(s). Ask about the barriers they encountered if they did not notify partners or what helped them if they did notify partners. Ask what you, as a primary care provider, can do to aid the partner notification process.

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Part I

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Part II

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Part III

Your assistant brings you the dipstick result of screening Darius' first catch urine that you obtain at the time of each patient's annual visit. (*See Handout #2.*)

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Part IV

You obtain tests for chlamydia and gonorrhea and treat Darius with Cefixime and Azithromycin at that visit. When you ask about his partners, Darius says that neither of them have complained of any symptoms. Initially, he does not wish to say anything to either of them for fear that they will realize that he is not monogamous.

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Epilogue

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Handout #1: Bright Futures Health Supervision Questions in HEADSS Format

<i>Home:</i>	<p>Who lives at home? If the teen lives with one parent: How often do you see the parent who does not live with you? What do you do together? What types of responsibilities do you have at home? What would you like to change about your family if you could?</p>
<i>Education:</i>	<p>What grade are you in? At what school? What kind of grades do you make? What is your favorite class? What is your least favorite class? How often do you miss school? What do you want to do when you finish school?</p>
<i>Activities:</i>	<p>What do you do for fun? What do you and your friends do outside of school? How old are your friends? What kind of exercise or organized sports do you do? Have you been injured in sports? How much time each week do you spend watching television or videos? Playing video games? Using the internet? Do you work? How many hours per week?</p>
<i>Drugs:</i>	<p>Do any of your friends smoke cigarettes or chew tobacco? Do any of your friends drink alcohol? Have they tried other drugs? Any inhalants? Have you ever tried smoking cigarettes? Do you still smoke? Do you ever drink alcohol? What is the most you have ever had to drink at one time? Have you ever done something after drinking that you later regretted? Have you ever tried other drugs? How often? Have you ever been in a car where the driver was drinking or on drugs? Have your friends ever tried to pressure you to do things that you don't want to do? How did you handle that? Are you worried about any friends or family members and how much they drink or use drugs?</p>
<i>Sex:</i>	<p>Do you date? Are you thinking about going out with men, women, or both? Do you have a steady partner? Are you happy with dating/this relationship? Do you have concerns or questions about sex? Have you ever had sex with someone? On what will you/do you base your decision to have sex? Have you ever been pregnant (or gotten someone pregnant)? Have you ever had a sexually transmitted infection? Do you use birth control? What kind? Have you ever used condoms? How often do you? Has anyone ever touched you in a way you didn't like? Forced you to have sex?</p>
<i>Suicide/Emotional Health:</i>	<p>What do you do to make yourself feel better when you are down or blue? Have you ever thought about leaving home? Do you ever feel really down and depressed? Have you ever thought about hurting yourself or killing yourself? Have you ever been in trouble at school or with the law?</p>

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Handout # 2: Darius' Dipstick Urinalysis Lab Slip

Adolescent/Young Adult Medical Practice

Clinical Assistant's Report

MR#

Name

003-52-981
Smith, Darius

Dipstick U/A

Leukocytes 1+

Nitrite -----

pH 5

Protein trace

Glucose -----

Ketones -----

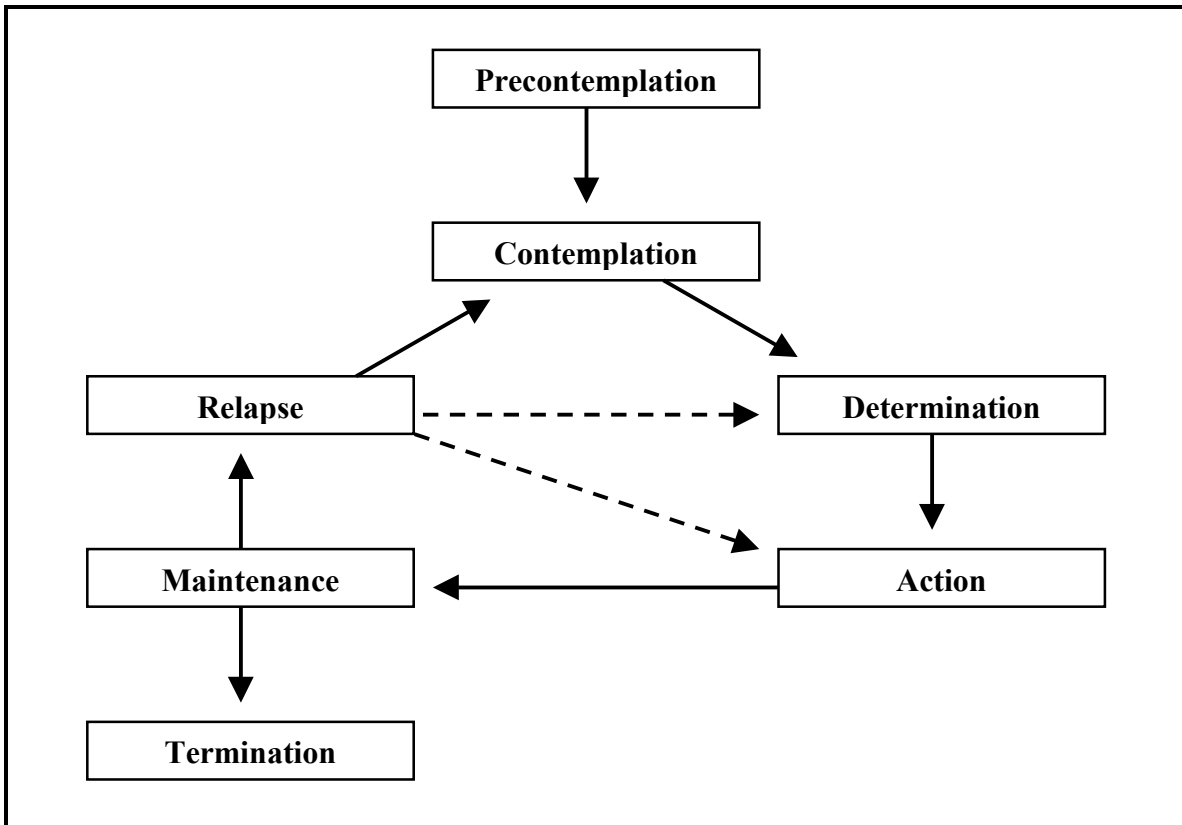
Urobilinogen -----

Bilirubin -----

Blood -----

Specific gravity 1.025

The Burning Issue Handout #3: Stages of Change



Precontemplators do not consider the behavior in question to be a problem; it is neither relevant nor a risk to their health. To move an adolescent to the next stage, the provider should provide information about the health consequences and promote the benefits of change. *“The diagnosis/problem is..” “This means for you..” “I can help you by..”*

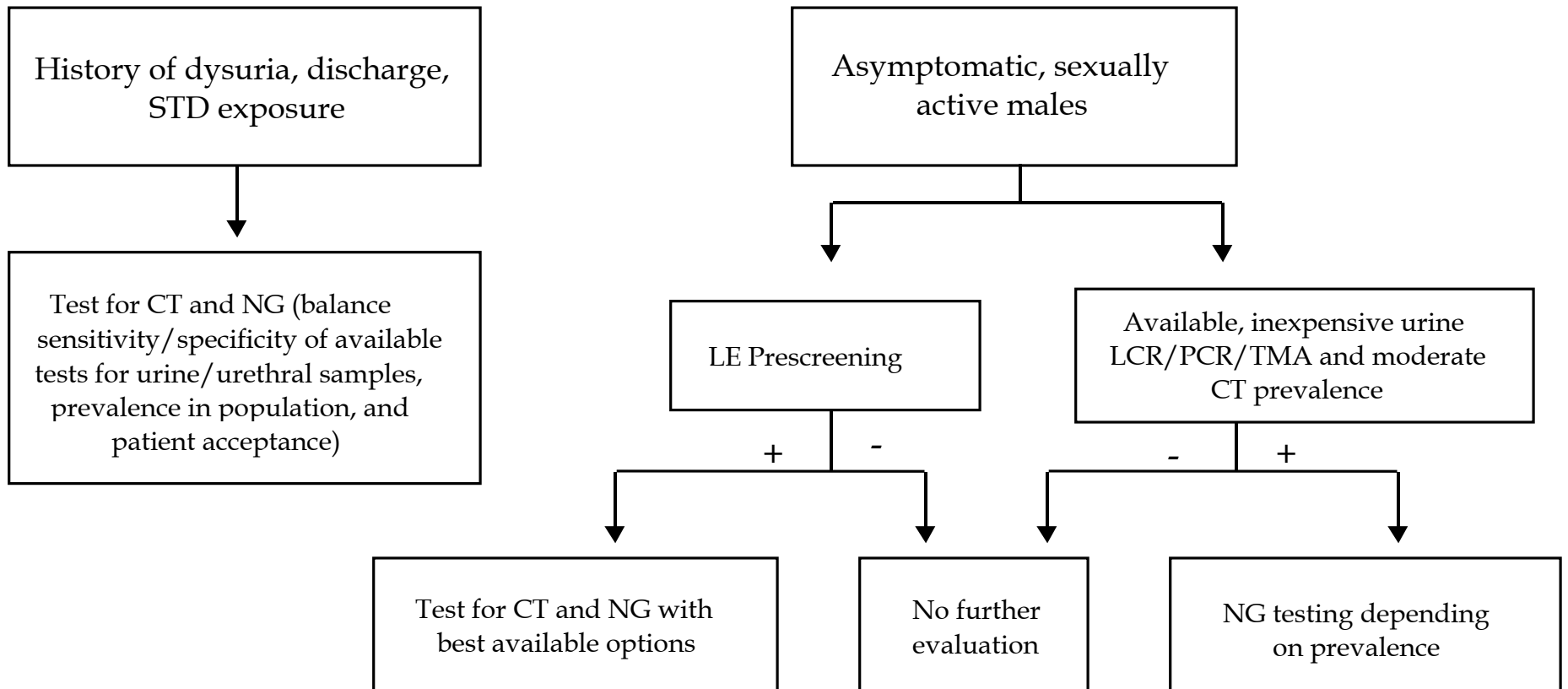
The **contemplator** considers that he/she may indeed have a problem and that there are pros and cons to the behavior; the individual begins to weigh the feasibility of change. The provider needs to address the barriers and concerns about behavior change and how to achieve change in steps. *“What would happen if you used a condom?”, “What are the good things about using a condom”, “The bad things?”, “Who or what might help you?”, “What would happen if you said “no” to intercourse?”*

Determination or **Preparation** is the stage in which the adolescent recognizes the need to change (within a month), although the behavior itself remains unchanged. The health care provider assists by increasing the importance of the pros and decreasing the value of the cons.

In the **Action** stage, the adolescent is actively changing behavior. The action should be reinforced through visits and telephone calls. *“I’d like to see you again in..” “Until you return in 2 weeks, what will you do?”*

In **Maintenance**, the adolescent refrains from the risky behavior and is confident in having made a change, which may lead to either a permanent exit (**recovery** or **termination**) from the cycle, or a **relapse** and entry into another cycle. Relapse should be treated as a learning experience not a failure.

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Handout #4: STD Detection in Adolescent Males



NG= Neisseria gonorrhoeae
CT= Chlamydia trachomatis
LE = urine leukocyte esterase test

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Suggested Readings (Annotated):

Holder DW, Woods ER. Chlamydia trachomatis screening in the adolescent population. *Current Opinions in Pediatrics* 1997;9:317-324. An overview of the epidemiology, clinical manifestations, and treatment of chlamydia infections in adolescents. The article includes a table of test performance of chlamydia tests and a flow chart for STD detection in adolescent males.

Center for Disease Control and Prevention. STD Treatment Guidelines, *Morbidity and Mortality Weekly Report* 1998. 47(RR-1):1-118. A comprehensive guide to clinical symptoms, diagnostic criteria, and treatment of STDs in children, adolescents and adults. Available on the web (<http://www.cdc.gov>) and should be available in all clinics treating teens.

Educational Resources on the World Wide Web:

Planned Parenthood Federation of America

<http://www.teenwire.com>

American Social Health Association

<http://www.ashastd.org> (This address provides information specifically on STDs and STD prevention.)

<http://www.iwannaknow.org> (This is ASHA's sexual health information web site geared towards teens.)

Sex, etc. Sexuality information for teens, by teens.

<http://www.sxetc.org>