



Botswana Ministry of Health

Management of Sexually Transmitted Infections

STI Management Course - Participant's Handbook



June 2005

I-TECH

The International Training and Education Center on HIV (I-TECH) was established in 2002 by the Health Resources and Services Administration (HRSA) in collaboration with the Centers for Disease Control and Prevention (CDC). I-TECH supports the ongoing development of health-care provider training systems that are locally determined, optimally resourced, highly responsive, and self-sustaining in countries and regions hardest hit by the AIDS epidemic.

BOTUSA

The BOTUSA Project is a collaboration of the Botswana government and the Centers for Disease Control and Prevention (CDC) of the U.S. Department of Health and Human Services, existing to provide technical assistance, consultation, and funding; implement programs; and conduct research with the Botswana government and other local and international partners for the prevention, care and support, and surveillance of HIV/AIDS, tuberculosis, and sexually transmitted infections (STIs).

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Welcome to the STI management course. We thank you for your participation in this course and hope that you will learn important information and skills that will guide you in your daily practice. Below you will find a table of contents that will help you to familiarise yourself with the contents of this handbook:

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Part I. About This Course

What you will learn

This course will cover the basic elements of comprehensive STI care in a primary health-care setting. The information presented is based on the newly revised STI Reference Manual for Botswana published by the Ministry of Health-Botswana. Topics covered include the syndromic management of STIs and updated treatment protocols, patient-centred care, behaviour-change counselling, and STI/HIV risk-reduction. You will also learn about the new national policy for routine HIV testing and how it fits within the context of STI care and treatment.

Why this course is important

This course will help you to stay up-to-date on the latest STI treatment guidelines for Botswana while enhancing your ability to provide the very best counselling and support for your patients. Because Botswana is among the countries in the world most affected by the HIV/AIDS epidemic, and because HIV/AIDS shares such an important link with other STIs, we must continually undertake efforts to improve the effectiveness of our STI services.

Who this course is designed for

This course is designed for health-care providers at all levels who regularly see patients with STI-related concerns.

How this course is organised

This is a three-day course consisting of one day of theoretical training and two days of practical training. The theoretical training will provide new information on syndromic treatment protocols as well as strategies for counselling and risk-reduction. During the practical training, you will have the opportunity to apply what you have learned and observe the principles and methods that have been discussed in action.

Course ground rules

Each training group will be invited to customise their own list of ground rules for the training. Some basic ground rules to consider are:

1. Show respect for opinions and voices of others in the training group
2. Do not interrupt
3. Do not use cell phones during the training (opportunities to make and return calls will be available during breaks)
4. Personal disclosures shared during the training sessions should remain confidential and not be shared outside of the training group

Course evaluation and learning assessment

At the beginning of the course, you will be asked to take a brief pre-test that will cover some of the topics being addressed during the course in order to assess your level of knowledge in these areas. This test will help your instructor to make sure that the course is suitable to the knowledge level of each participant while also assessing the level of knowledge gained during the course. At the completion of the course, you will be asked to fill out a brief post-test and evaluation form. The post-test is used to measure how much knowledge you gained during the course while the evaluation form is used to collect your comments and suggestions so that the course may be improved upon for future participants.

How to use this participant handbook

The participant handbook is intended for use as a supplemental resource in addition to the 2005 edition of the *STI Reference Manual* for Botswana, the primary textbook for this course. A second supplemental resource to use during this course is the *Clinical Guide*, a collection of colour clinical photographs and flowcharts that you can take with you for use in your clinical practice. While the reference manual contains the majority of the information that will be covered during the course, the participant handbook provides you with an overview of each session that includes learning objectives, key points, and a description of session activities with accompanying worksheets. At the beginning of each session description, you will also find references to the corresponding chapters of the STI reference manual so that you can prepare and follow along accordingly.

How to learn most effectively during this course

It is strongly recommended that you thoroughly review the *STI Reference Manual* before attending this course. This will help you to familiarise yourself with the course content, leading to a richer and more fulfilling learning experience for you and the other course participants. By reviewing the course material ahead of time, you can use the course as an opportunity to clarify concepts and answer any questions you may have related to the information presented in the reference manual.

This course is meant to be interactive, and each participant is encouraged to actively participate in the learning process. Since all of the material presented is meant to enrich your practice as a health-care provider, it is important that you get the most out of your learning experience. You are encouraged to make sure that all of your questions are answered to your satisfaction and that the information presented is clear and understandable. Due to the limited time for the course and the large volume of information covered, not every topic will be discussed in detail. However, if you feel at any time that an important point is being missed, do not hesitate to inform your instructor and she or he will make an effort to include it in the discussion.

Sample Course Schedule

This schedule is intended as a guide only. The actual order of events may differ.

Day 1: Theoretical Training		
Time	Session	Topics Covered
8:00 – 8:20	Course Opening	Opening prayer Registration Welcome remarks
8:20 – 9:30	Session 1	Course training objectives Agenda review Pre-test Course overview and background
9:30 – 9:50	Session 2	Patient-centred care <ul style="list-style-type: none"> • Videos 1 and 2
9:50 – 10:20	Session 3	Gathering Information: History Taking and Assessing STI/HIV Risk
10:20 – 10:35	TEA BREAK	
10:35 – 11:05	Session 4	Male and Female Physical Exam <ul style="list-style-type: none"> • Video 3
11:05 – 13:00	Session 5	Diagnosis and Management of STI-related Syndromes <ul style="list-style-type: none"> • GUD • Vaginal Discharge • Urethral Discharge • Genital Warts
13:00 – 14:00	LUNCH	
14:00 – 14:40	Session 5 (Continued)	Diagnosis and Management of STI-related Syndromes <ul style="list-style-type: none"> • Inguinal bubo • Balanitis • Scrotal Swelling • Neonatal Conjunctivitis
14:40 – 15:05	Session 6	Risk-reduction Counselling <ul style="list-style-type: none"> • Video 4
15:05 – 15:30	Session 7	Integrating Routine HIV Testing into the Primary-Care Visit
15:30 – 16:00	Session 8	HIV Post-Test Counselling <ul style="list-style-type: none"> • Video 5 • Role-play (time permitting)
Evening	Homework	Review Reference Manual and Flowcharts

Day 2: Practical Training		
Time	Session	Topics Covered
7:30 – 12:45	Morning practical training	Clinical practice of STI Syndromic Management
12:45 – 13:45	LUNCH	
13:45 – 14:45	Practical Training	Clinical encounters or case study discussion
14:45 – 16:30	Applied Theoretical Training	Pre-prepared case study discussion

Day 3: Practical Training		
Time	Session	Topics Covered
7:30 – 12:45	Morning practical training	Clinical practise of STI Syndromic Management
12:45 – 13:45	LUNCH	
13:45 – 16:00	Practical Training	Clinical encounters or case study discussion
16:00 – 16:30	Closure of Course	Post-test and course evaluation

Part II: Course Sessions

Session 1:

Course introduction, training objectives, and agenda review

Length: 1 hour 10 minutes
STI Reference Manual: Chapter 1

1.1 Session Overview

Aim

The aim of this session is to familiarise you with the material, training objectives, and goals of this course and to introduce you to the instructor and other course participants.

Learning Objectives

- Understand the rationale and goals of the course
- Understand how this course will help you to provide a better standard of care to patients with STI-related complaints
- Meet the trainer(s) and participants
- Understand the learning objectives for the course
- Become familiar with the types of activities that will be performed during the course
- Understand the reasons for recent changes to national STI guidelines

Session Activities

- Opening prayer
- Instructor remarks
- Pre-test
- Trainer and participant introductions
- Icebreaker activity
- Lecture
 - Training objectives and activities
- Group discussion
 - Course expectations
 - Setting ground rules
 - Q & A

1.2 STI Course Information

Course Rationale

This course provides an opportunity for Botswana health-care professionals to receive information on the latest STI guidelines and recommendations while also serving as an opportunity to review the basic principles of comprehensive STI management.

This course is being offered in conjunction with recent changes to some of the national STI treatment guidelines as well as the introduction of the new national policy on routine HIV testing.

Due to the high prevalence of STIs in Botswana, including HIV, it is imperative that all health-care professionals who treat patients for STI-related concerns are up-to-date on the latest information.

Course Goals

- Provide participants with knowledge and tools that will enhance their ability to provide high-quality care to patients with STI-related complaints
- Answer questions providers may have about issues related to their practice
- Provide a forum for discussion on issues related to STI care and prevention
- Emphasise the importance of the role that effective STI management plays in HIV prevention

Purposes of the Pre- and Post-Tests

- Assess your level of pre-existing knowledge in the topic areas covered by the course
- Provide the instructor with information about the knowledge level of participants in order to appropriately tailor course discussions
- Provide you and the instructor with a tool for measuring the effectiveness of the course at increasing participant knowledge
- Improve the effectiveness of the course for future participants

Course Training Objectives

- Provide information about recent changes to national STI syndromic management guidelines
- Explain the role of the new national policy on routine HIV testing within the context of primary care
- Introduce the concept of patient-centred care and its implications for patients with STI-related complaints
- Review the important components of history taking, risk assessment, and physical examination
- Review STI syndromic management guidelines and the steps involved in diagnosis and treatment
- Outline the steps in effective risk-reduction counselling and planning
- Provide information on post-test STI/HIV counselling
- Provide opportunity to apply newly acquired knowledge and skills in a clinical setting while receiving instructor/participant feedback

Types of activities you will engage in during this course:

- Lecture
- Viewing dramatised video segments
- Role play
- Group discussion
- Supervised clinical care

1.3 Background on Revised STI Guidelines

2002 STI Validation Study

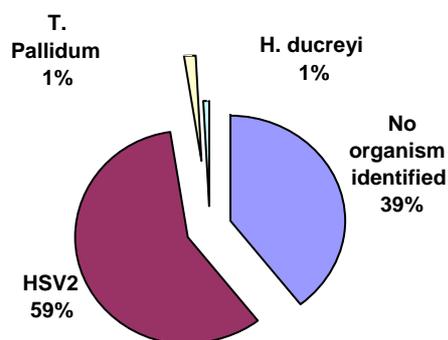
A joint study was conducted in 2002 by Ministry of Health-Botswana and BOTUSA-CDC to validate the STI treatment guidelines currently in use. The objectives of this study were to:

- Determine pathogens responsible for genital infections in patients with STI syndromes
- Evaluate the performance of the current STI syndromic algorithms
- Compare current prevalence with previous surveys
- Determine the feasibility of incorporating acyclovir therapy into the GUD algorithm

Findings were compared to results of the 1993 STI survey and a number of findings suggested that the prevalence of STIs in Botswana has changed significantly. These findings also suggested a strong association between various STIs and HIV.

Justification for changes to national STI treatment guidelines:

- The recent study showed an increase in GUD patients with genital herpes with a co-incident drop in syphilis and chancroid in Africa
- HSV-2 infection is known to be a significant risk factor for HIV acquisition
- The WHO guidelines for syndromic management of STI suggest adding antiviral-therapy for herpes to genital ulcer disease (GUD) algorithm depending upon local availability and prevalence
- A large portion (59%) of GUD patients in Botswana were found to have genital herpes (HSV2) in a recent study (MOH-BOTUSA 2002):

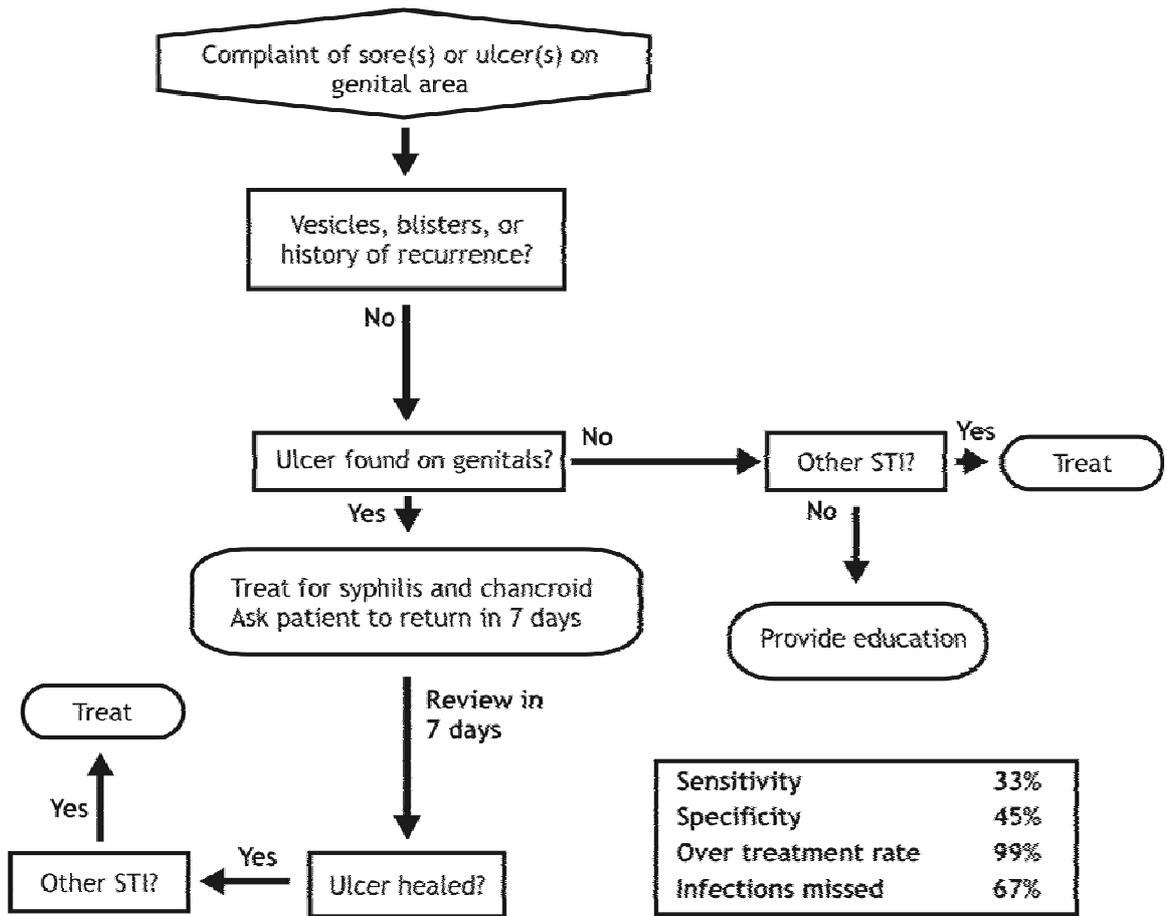


① Sensitivity is the probability of correctly detecting an infection in someone who is actually infected.

Specificity is the probability of NOT detecting an infection in someone who is NOT infected.

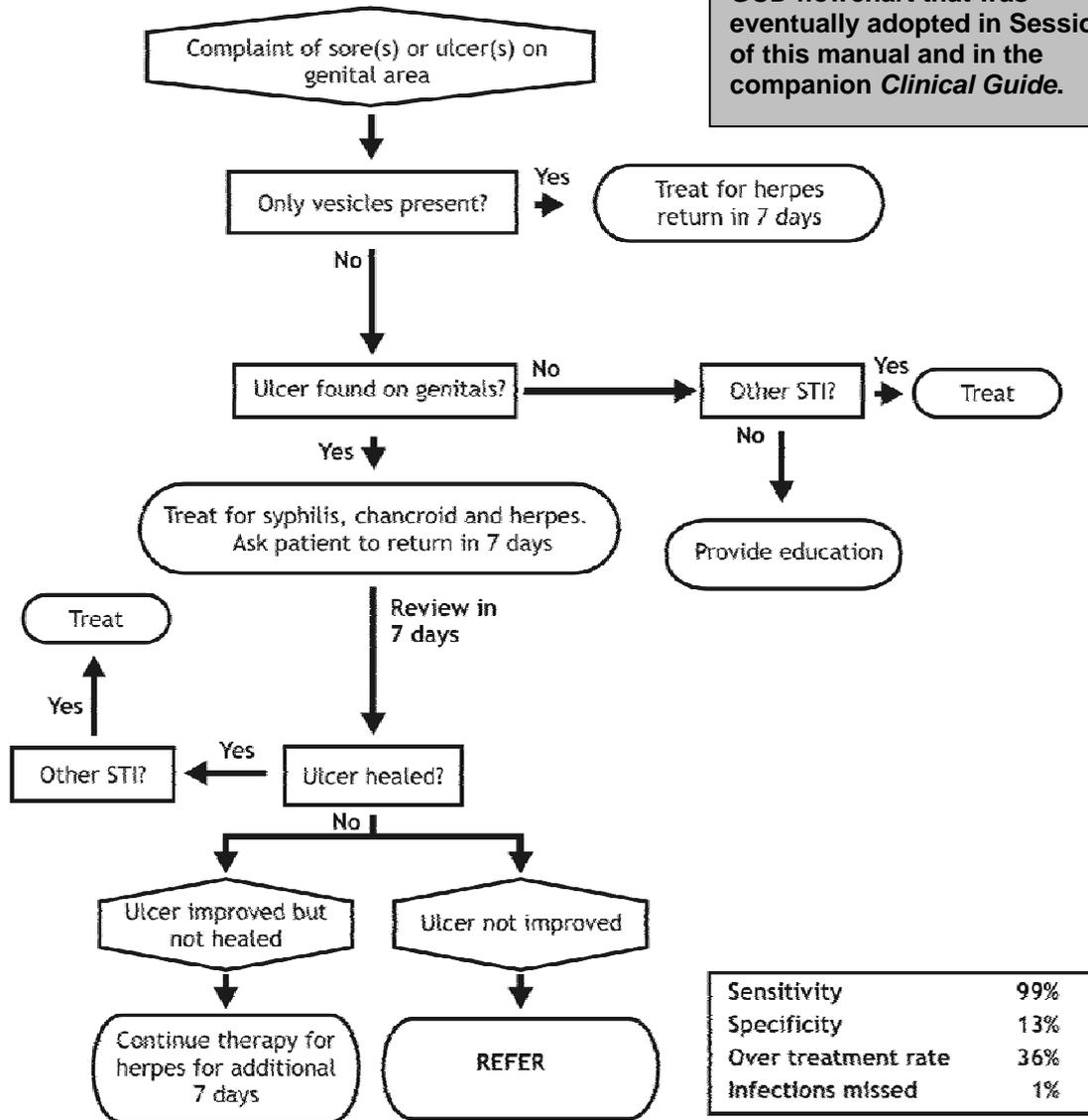
- As a result of this study, it was concluded that Botswana's treatment flowchart for the treatment of GUD (shown below) be changed to increase its sensitivity for genital herpes:

Genital Ulcer Disease Flowchart (Old Version)



- The authors of the study proposed a new flowchart (shown below) that greatly increases sensitivity as well as dramatically reduces over-treatment rate and missed infections.
- **Note:** The proposed flowchart shown below differs slightly from the flowchart that was ultimately adopted as part of the new national STI guidelines, which can be found in Section 5 of this handbook.

Proposed Genital Ulcer Disease Flowchart



***Refer to the slightly revised GUD flowchart that was eventually adopted in Session 5 of this manual and in the companion *Clinical Guide*.**

Sensitivity	99%
Specificity	13%
Over treatment rate	36%
Infections missed	1%

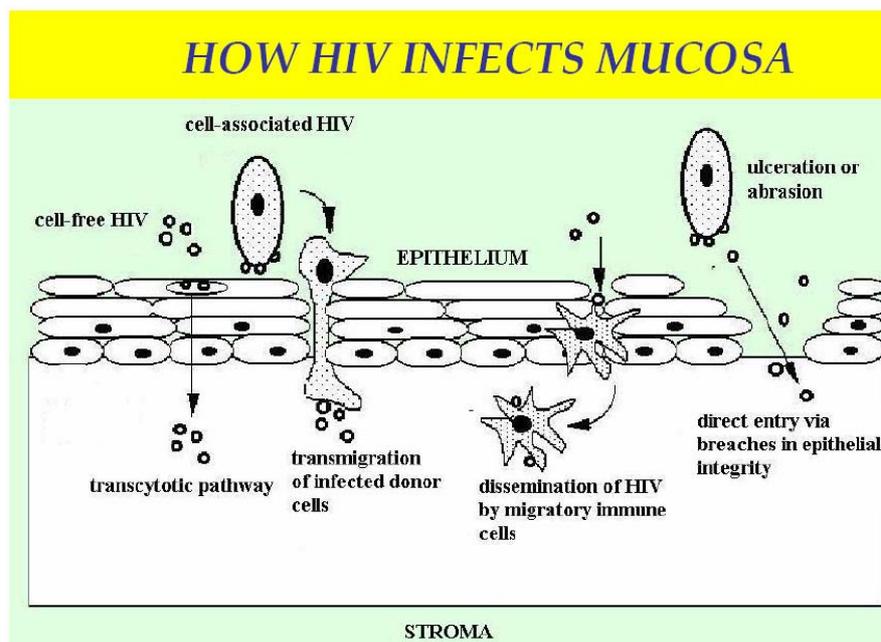
Major Findings of the STI Study

- Low prevalence of syphilis and chancroid
- High prevalence of HSV-2 (genital herpes)
- Current GUD algorithm with poor sensitivity and specificity

Major Recommendations of the Study

- **GUD:** Include acyclovir, an anti-herpes drug, in treatment
- **Vaginal Discharge & Urethral Discharge:** Include brief risk assessment in flowcharts to increase sensitivity
- **PID:** Combine PID flowchart with Vaginal Discharge flowchart to detect more cases

1.4 How STIs Facilitate HIV Transmission

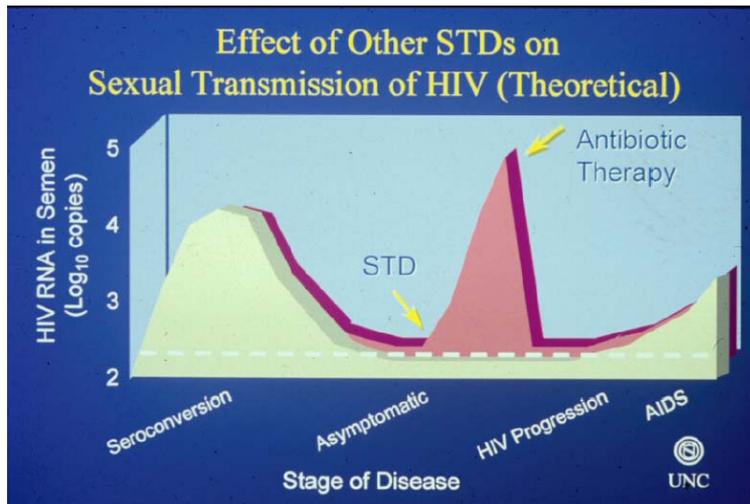


Ulcerations or abrasions, like those caused by GUD and other STI syndromes, can significantly increase the ability of HIV to penetrate mucous membranes.

Major findings concerning STIs and HIV transmission/acquisition

- The Rakai study in Uganda found that higher viral load and genital ulceration are the main determinants of HIV-1 transmission per coital act in that population¹.
- Several studies have shown that STI is associated with:
 - Higher HIV viral shedding
 - Higher rates of HIV seroconversion
- Appropriate and timely treatment of STIs can:
 - Lower HIV viral load
 - Reduce HIV incidence

¹ Gray RH, Wawer MJ, et al. Probability of HIV-1 transmission per coital act in monogamous, heterosexual, HIV-1-discordant couples in Rakai, Uganda. Lancet 2001 Apr 14; 357(9263):1149-53



When STIs are treated appropriately in HIV-positive patients, the HIV viral load may decrease, thus reducing the chances of transmission to an uninfected partner.

 **Notes**

Session 2:
Patient-centred care

Length: 20 minutes
STI Reference Manual: Chapter 2

2.1 Session Overview

Aim

The aim of this session is to increase providers' ability to use a patient-centred care approach in the context of comprehensive STI management.

Learning Objectives

- Name the principles of patient-centred care
- Identify differences between patient-centred and provider-centred care
- Name strengths and weaknesses of each approach

Session Activities

- Viewing of Video Segment

The following pages include a worksheet that will be used during the activities listed above. Your instructor will guide you in the proper use of the worksheet.

2.2 Introduction to Patient-Centred Care

What is patient-centred care?

- Patient-centred care emphasises a partnership approach to problem solving throughout the patient interaction (shared decision-making).
- Communication research has shown that interviews that have core elements in a definable sequence enhance provider and patient satisfaction and health outcomes:
 1. Building rapport
 2. Negotiating the agenda
 3. Gathering information, eliciting patient's perspective
 4. Reaching common ground
 5. Providing closure

2.3 Practising Patient-Centred Care

Principles of Patient-Centred Care

The principles of patient-centred care should be applied during all steps of the patient visit.

- Communicate in a non-judgmental manner and be an active listener

- Explore the disease and the patient's feelings and perceptions about their condition
- Understand the patient as a whole person, not just someone with a health condition
- Come to a mutual understanding with the patient regarding disease management
- Incorporate prevention and health promotion
- Enhance the health-care provider-patient relationship
- Be realistic

Benefits of Patient-Centred Care

- Using a patient-centred approach can help you to communicate more effectively with your patient, especially about sensitive topics such as sexual history
- Patient-centred care can lead to more positive outcomes for the patient, such as a greater likelihood of adopting risk-reduction behaviours, notifying sexual partner(s) about the need for evaluation and treatment, and adhering to the care plan
- Using a patient-centred approach means acknowledging that we are not in control of patients and their behaviours, and that we need to find realistic treatment and risk-reduction plans that can accommodate individual differences



Group Activity: Watch Video Trigger Tapes 1 & 2 and use Worksheet 2.1 to take notes



Group Activity: Discuss Patient-Centred Care

- What are the key differences between the patient-centred and the provider-centred approaches?
- What are the positive/negative aspects of each approach?
- How would these different approaches possibly impact patient outcomes?

Worksheet 2.1

Viewing of Video Segments 1 & 2: Patient-Centred vs. Provider-Centred Care

Objective:	Be able to recognise the differences between patient-centred and provider-centred care
Description:	A nurse welcomes a young woman and questions her about her reasons for coming into the clinic
Instructions:	While you watch the videos, pay close attention to how the nurse is interacting with her patient. Reflect on what you know about patient-centred care and, in the spaces provided below, write down the ways in which she does or does not follow these principles in each video segment
Questions:	Specific questions to think about as you watch the video include: <ul style="list-style-type: none">• Does the provider take time to build rapport at the beginning of the visit?• Does the provider actively listen to the patient's concerns and answer her questions in an appropriate and thoughtful manner?• Does the provider respond to the patient in a non-judgmental way?• What should the provider have done /what would you do differently in this situation?

Segment #1 What the nurse did that was patient-centred:

What the nurse did that was *not* patient-centred:

Segment #2 What the nurse did that was patient-centred:

What the nurse did that was *not* patient-centred:

 **Notes**

Session 3:

Gathering information: history taking and assessing STI/HIV risk

Length: 30 minutes
STI Reference Manual: Chapter 2

3.1 Session Overview

Aim

The aim of this session is to help providers identify effective ways of gathering patient histories and assessing STI/HIV risk.

Session Learning Objectives

- Demonstrate effective techniques for assessing STI/HIV risk behaviours
- Identify techniques for incorporating discussion about HIV status and testing into history taking
- Name the types of information to be collected when taking a comprehensive patient history for STI
- Name specific risk factors included in the STI syndromic algorithms

Key Points

- Use a patient's concerns and questions as a starting point for gathering his or her history
- Clearly explain the agenda to the patient and respond to questions or concerns
- Use the discussion as a way to assess the patient's risks for STI/HIV
- Syndromic STI risk-factor assessments are an important way to identify sub-clinical cases when laboratory testing is not an option

3.2 Gathering Patient Information

Information Gathering Strategies

- Use a dynamic discussion between you and your patient as the means for taking the history, which should include an assessment of the patient's risk level
- Avoid reading a list of questions
- Explore your patient's concerns by practising "active listening"
- Explain that all information will be kept confidential
- Develop a rapport so the patient can feel relaxed and comfortable

Building Rapport

- Begin with a non-medical interaction
- Create an atmosphere that is open and supportive
- Discuss a detailed agenda of what will occur
- Answer questions using simple terms the patient can understand

Negotiating the Agenda

- Start with open-ended questions about the patient's concerns
- Ask more than once if the patient has shared all concerns
- Ask the patient to prioritise concerns
- Negotiate the agenda, including provider concerns

History: Patient Information to Gather

Collect the following information during your patient-centred discussion:

- Name
- Age
- Physical address
- Marital status
- Presenting symptom(s)
- History of presenting symptoms
- Medical and gynaecologic history
- STI history
- Medication history
- Sexual and social history
- Partner's symptoms
- Review of systems
- HIV status/testing history

3.3 Assessing STI Risk

Asking about STI/HIV Risks: Where to Start

- Normalise and Ask Permission: "Now I would like to ask you some personal questions that I ask all my patients to find out more about their health-care needs. Would that be OK?"
- Clarify Misconceptions: "First, let's talk about HIV and STIs. Tell me what you know about how people can get HIV and STIs."
- Enhance Risk Perception: "Tell me about your risks for HIV and STIs."
- Explore Concern: "How concerned are you about getting HIV or an STI?"

Syndromic STI Risk-Factor Assessment

- Usually consists of a few simple questions about the patient
- Risk factors can vary in different settings and geographic regions
- Can be used to increase the predictive power of the syndromic diagnosis (e.g., urethral discharge, vaginal discharge)

Risk-Factor Assessments in STI Algorithms

- Urethral Discharge: believes partner has other sex partners, reports burning at urination
- Vaginal Discharge/LAP: age <21, reports yellow discharge

Importance of Syndromic STI Risk-Factor Assessment

- STI infections often have sub-clinical presentations
- In the absence of laboratory testing, risk assessments can help catch these cases
- According to a recent study in Botswana, including risk-assessment step for urethral discharge decreased rate of missed infections from 25% to 2% (MOH/BOTUSA 2002)

 **Notes**

Session 4:
Physical exam

Length: 30 minutes
STI Reference Manual: Chapter 2

4.1 Session Overview

Aim

The aim of this session is to increase providers' skills and comfort in performing male and female physical examinations.

Learning Objectives

- Name the necessary conditions and equipment for conducting a physical exam
- Identify the protocol for carrying out a thorough physical examination of both a male and female patient with STI-related concerns
- Gain an understanding of and discuss the provider concerns regarding the provision of physical exams

Key Points

- Applying a patient-centred approach to the physical exam can make your patient feel more at ease and can assist you in making an accurate diagnosis
- A thorough exam is an important part of routine STI care for both men and women
- There are certain steps that a provider can take to make the exam more "sensitive" to the patient
- It is important to do your own thorough examination and not just look for the symptoms that the patient brings to your attention

Session Activities

- Viewing of Video Segment

The following pages include a worksheet that will be used during the activities listed above. Your instructor will guide you in the proper use of the worksheet.

4.2 Preparation

Preparing for the Exam

- Always follow the Universal Safety Precautions for health-care providers
- Make sure your patient is comfortable
- Ensure privacy
- Explain what you will be doing and ask for consent
- Preferable to have a chaperon present when examining patients of the opposite sex.
- Prepare patient for exam by describing actions in advance

WHO Universal Safety Precautions

- Hand washing after any direct contact with patients
- Safe collection and disposal of needles (hypodermic and suture) and sharps (scalpel blades, lancets, razors, scissors), with required puncture- and liquid-proof safety boxes in each patient-care area
- Wearing gloves for contact with body fluids, non-intact skin, and mucous membranes
- Wearing a mask, eye protection, and a gown (and sometimes a plastic apron) if blood or other body fluids might splash
- Covering all cuts and abrasions with a waterproof dressing
- Promptly and carefully cleaning up spills of blood and other body fluids
- Using a safe system for hospital-waste management and disposal

4.3 Conducting the Exam

General Guidelines

- Examine in a private, well-lit room.
- Patient should be undressed from the chest down while he or she lies on a couch.
- Cover him/her with a sheet - only expose parts you are examining.
- Male patients may be examined while standing if necessary.
- Perform speculum and bimanual exam gently with minimum discomfort.
- Use language patient can understand to describe physical finding.

Female Exam

- A general body examination. Look for rashes, swellings, and sores on chest, back, and abdomen
- Inspect skin of palms, forearms, hands, lower abdomen, and inguinal areas
- Palpate neck, axillae, supraclavicular areas, epitrochlear areas, and area under the chin for enlarged lymph nodes.
- Check particularly for tenderness deep in the pelvis.
- Palpate for any inguinal lymph nodes or femoral adenopathy.
- Examine pubic area.
- Inspect pubic hair for lice and nits.
- Inspect and palpate external genitalia for enlarged lymph nodes and inspect perineum and anus. Note any discharge, ulcers, or growths.
- Be sure to describe the size, location, and appearance of any ulcers or warts.

Female Speculum Exam

- Separate the labia and insert a warm, well-lubricated bivalve speculum and inspect the vaginal walls and the cervix.
- Look carefully for ulcers, warts, and cervical and vaginal discharge.
- Patient should lie with her legs bent at the knees and the feet and knees separated.
- A good, bright light source is necessary in order to inspect inside the vagina.

Female Bimanual Pelvic Exam

- When inspection of the vagina and cervix is complete, remove speculum and insert index and middle fingers into the vagina.
- The exam is carried out with the two fingers inside vagina and other hand placed on the lower abdomen.
- Examine the pelvis for swellings and tenderness.
- Check for cervical motion tenderness by gently moving cervix laterally
- Remember that if a patient has extensive, painful genital ulcers, it may not be possible to perform a speculum examination. Be careful not to hurt your patient

Male Exam

The minimal routine screening examination for men with a suspected STI includes:

- Inspect skin of the neck, chest, back, hands, palms, forearms, lower abdomen, inguinal areas, and thighs. Look for rashes and sores.
- Palpate neck, axillae, supraclavicular areas, epitrochlear areas, and area under the chin for enlarged lymph nodes.
- Inspect skin of the genitals, perineum, and buttocks. Look for rashes or sores.
- Inspect pubic hair for lice or nits.
- Inspect penis, including the meatus, with retraction of the foreskin.
- Look for genital ulcers and urethral discharge.
 - If a discharge is present, note whether it is coming from the urethra.
 - If there is no obvious discharge, give urethra a gentle squeeze and massage forward to try and express discharge.
- Palpate scrotal contents. Note presence or absence of genital ulcers or buboes.
- Palpate groin, feeling for inguinal lymph nodes and buboes.
- Be sure to describe the size, location, and appearance of any ulcers or warts.



Group Activity: Watch Video Trigger 3 and use Worksheet 4.1 to take notes



Group Activity: Discuss Performing a Sensitive Physical Exam

- Does the nurse help the patient to feel relaxed and comfortable?
- Does the nurse do a good job of explaining to the patient beforehand what will happen during the exam?
- Does the nurse explain what she is doing as she performs the exam?
- Does the nurse perform a thorough exam?
- How could the nurse have done a better job/what would you have done differently?

Worksheet 4.1

Viewing of Video Segment: Sensitive Physical Exam

- Objective:** Understand the steps involved in a physical exam and how it can be performed in a way that is more “sensitive” to the patient.
- Description:** A nurse performs a physical exam on an 18 year-old girl who is complaining of vaginal discharge.
- Instructions:** While you watch the video, pay close attention to how the nurse is interacting with her patient and the different steps she follows in performing the exam. Reflect on what you know about performing physical exams and, in the space provided below, write down the ways in which she does or does not follow what you believe to be the correct protocol.
- Questions:** Specific questions to keep in mind while you are watching the video include:
- Does the nurse help the patient to feel relaxed and comfortable?
 - Does the nurse do a good job of explaining to the patient beforehand what will happen during the exam?
 - Does the nurse explain what she is doing as she performs the exam?
 - Does the nurse perform a thorough exam?
 - How could the nurse have done a better job/what would you have done differently?

Observations:

 **Notes**

Session 5:

Diagnosis and management of STI-related syndromes

Length: 2 hours 35 minutes
STI Reference Manual: Chapters 2, 6 through 10
Clinical Guide

The Clinical Guide is a companion document to this session of the course. It contains full-colour versions of the photographs included here. Refer to the Guide as you work through this session.

5.1 Session Overview

Aim

The aim of this session is to raise providers' awareness of recent changes in the treatment algorithms for some STI syndromes, and to increase providers' skills in applying the national STI syndromic management guidelines.

Learning Objectives

- Explain the importance of a syndromic STI risk assessment to increase the predictive power of the flowchart
- Identify the presentations of common STI-related syndromes
- Name the diagnostic criteria for specific STI-related syndromes
- Identify the appropriate treatments for common STI-related syndromes in accordance with national STI-management guidelines
- Name the recommended partner-management strategy for each STI-related syndrome
- Identify how HIV co-infection affects diagnosis and treatment of each STI-related syndrome

Key Points

- Recent changes have been made to the national treatment guidelines for GUD in response to the high prevalence of genital herpes among patients with GUD in Botswana
- Including a simple risk assessment can increase the chances of making an appropriate syndromic diagnosis
- Partner notification and referral is a key component of effective STI management and prevention
- Effective STI management can play an important role in national HIV infection control efforts

Session Activities

- Case Studies from Appendix B

Appendix B contains Case Studies for each syndrome. Your instructor will review them, along with related worksheets, during this course.

STI-Related Syndromes

Specific information about each syndrome can be found on the following pages as indicated:

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Genital Ulcer Disease (GUD)

What is GUD?

Definition: Ulcerative lesions on the genitals usually caused by a sexually transmitted infection such as herpes, syphilis, or chancroid.

Major Aetiologies of GUD

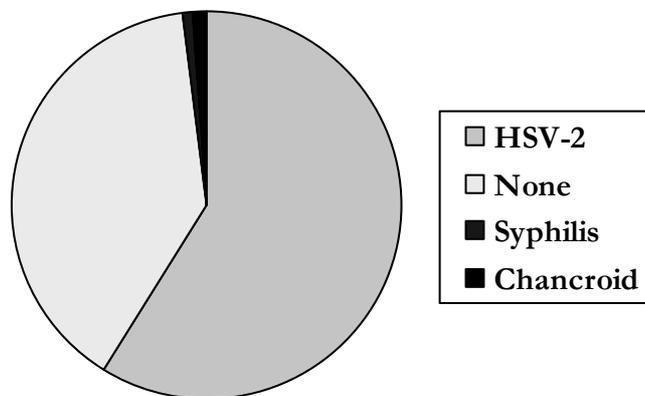
Herpes simplex virus type 2 (HSV-2)

Syphilis—caused by *Treponema pallidum*

Chancroid—caused by *Haemophilus ducreyi*

Trauma—caused by zipper injury, other

Aetiologies of GUD: Botswana



- PCR used Gabarone, Francistown, Selebi Phikwe 11/01-3/02
- 951 patients: 757 women, 196 men in STI, FP, private clinics
- Data courtesy of Dr. Mafizur Rahman, MOH, Botswana; CDC

Genital Herpes Vesicles



Source: Cincinnati STD/HIV Prevention Training Center



Source: Cincinnati STD/HIV Prevention Training Center



Source: Cincinnati STD/HIV Prevention Training Center



CDC

Important Characteristics of Genital Herpes

- Genital herpes is a recurrent, lifelong viral infection
- HSV-2 causes the majority of genital herpes, and is responsible for most recurrent disease
- Infection persists despite the host immune response
- Immunosuppression causes more frequent recurrences (outbreaks)

Transmission of Genital Herpes

- HSV-2 transmitted sexually (genital-to-genital contact) and perinatally (mother to infant)
- HSV-1 transmitted through oral sex (mouth to genitals)
- Most sexual transmission occurs while source case is asymptomatic (no visible ulcers or lesions)
- Efficiency of sexual transmission is greater from men to women than from women to men

Clinical Stages of HSV-2

- Primary Initial HSV-2 Infection:
 - First episode that occurs within 3 to 5 days of infection
 - Itchiness and redness at infection site
 - Vesicles follow
 - Most painful or severe outbreak
- Non-Primary Initial Herpes:
 - Results from new infection in person already infected with alternate herpes type
 - Usually HSV-2 infection in someone infected with HSV-1
 - Less severe than a primary outbreak,
 - More severe than a recurrent outbreak
- Recurrent Herpes:
 - Recurrent outbreaks in patients already infected
 - 90% of recurrent herpes is HSV-2
 - Outbreaks are less severe

Symptomatic Genital Herpes Represents the Minority of Cases

- Recognised infection: 9.2%
- Unrecognised and asymptomatic infection: 90.8%
- Up to 70% of transmission may occur when there are no symptoms

Syphilis

Syphilis: Overview

- Caused by the bacterium *Treponema pallidum*
- Has distinct early (primary, secondary, and early latent) and late (late latent and tertiary) stages over several years or decades, interspersed with periods of inactive (latent) infection
- Is a disseminated infection from the time of initial infection
- Mode of transmission: Sexually transmissible only when treponemes are present, either at the site of the chancre in primary syphilis, or in the blood during the secondary and early latent stages
- Incubation period: Usually 2 to 6 weeks

Syphilis: Three Phases

- First phase: Defined by presence of chancre
- Second phase: Defined by general (system) dissemination of the spirochaete, often manifested by rash, condylomata lata, mucous patches; may present hepatitis, meningitis
- Third Phase: Defined by deep tissue involvement, typically gumma or bone or advanced neurologic disease

Syphilis: Clinical Features, Primary Stage



Photos: CDC

Primary--Chancre at Cervix



Photo: CDC

Case Study of Syphilis

Use the Genital Ulcer Disease Flowchart that follows to answer the questions in italics from the following case study. Your instructor will also present the answers as part of this training. Use the space after each question to fill in the answer.

- A pregnant woman has positive RPR.
 - *What questions you would like to ask?*

 - *What does RPR stand for?*

 - *What is difference between RPR and VDRL?*

- You learn that she has never been treated for syphilis in the past, and there is no other RPR test available.
- On your history and PE, there is no signs or symptoms suggestive of syphilis.
 - *What are your thoughts and plans?*

- In 3 months the RPR titer has increased.
 - *Why would this happen? What are your plans?*

Chancroid

Chancroid: Overview

- Caused by the bacterium *Haemophilus ducreyi*
- Develops resistance to antibiotics
- Mode of transmission: Direct contact with an infectious lesion
- Incubation period: 2-10 days
- Lesion is typically an ulcer:
 - Classically painful
 - Often associated regional lymphadenopathy
 - Unilateral lymph node enlargement may occur; if purulent, is called a bubo

Chancroid Ulcers

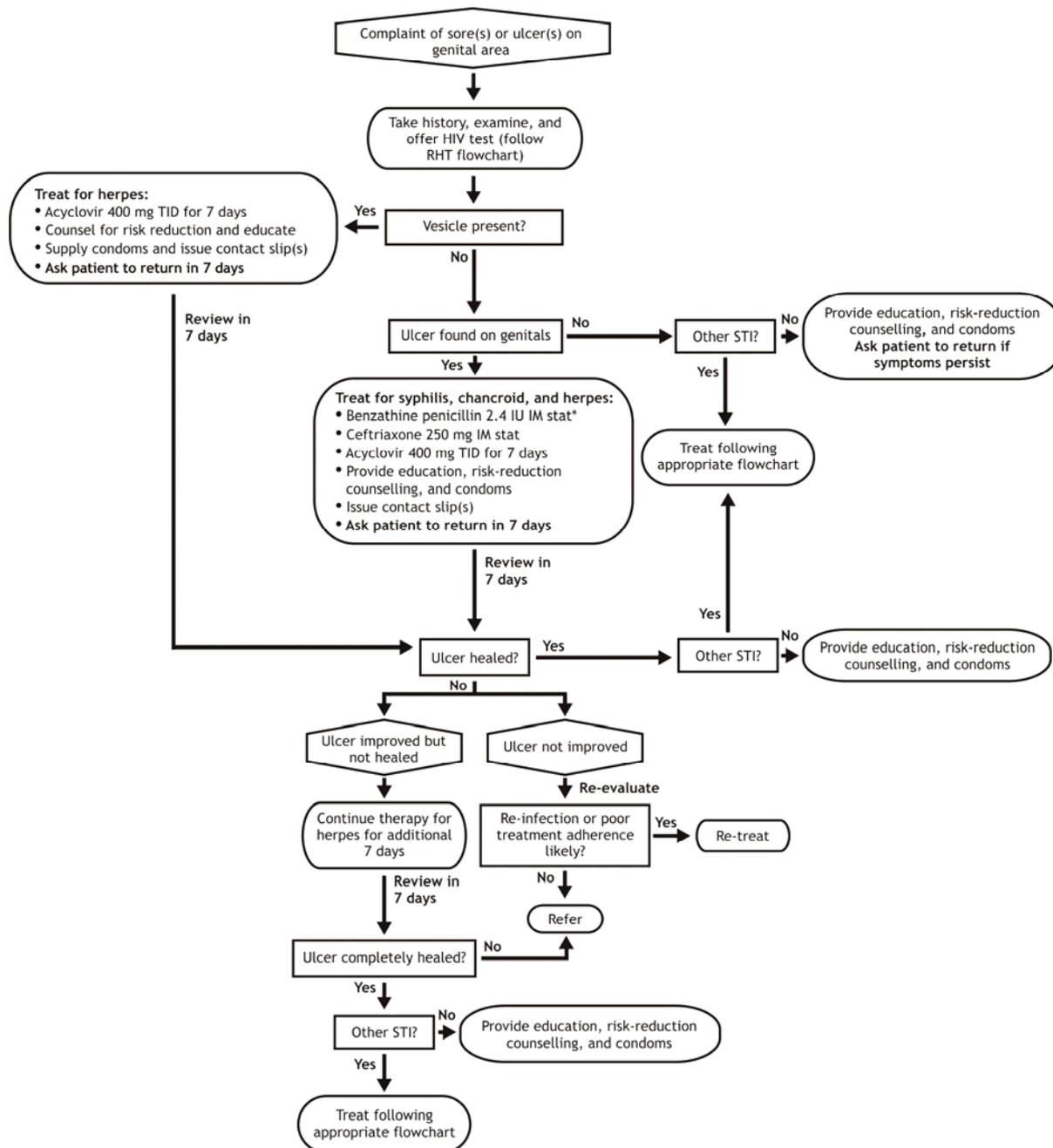


Error!



Photos: CDC

Genital Ulcer Disease Flowchart



Special consideration for syphilis: A newborn should be treated with procaine pen if the pregnant mother was given erythromycin.

Antiviral Therapy for Genital Herpes

- Partially controls symptoms and signs
- Likely reduces risk of HSV transmission to partners
- May reduce risk of HIV transmission to partners
- Therefore, reasonable to have low threshold to offer/prescribe treatment if it is available

Acyclovir: Important Points

- Very well-tolerated: Most patients have no side effects
- Occasionally causes mild nausea, headache
- Does not invoke acyclovir resistance in HSV
- Safe to use in pregnancy (any trimester)
- No drug interactions with antiretroviral therapy (HAART)
- Long term use (>10 years) not associated with adverse effects or development of viral resistance

Genital Herpes and HIV

- HIV+ persons often have more prolonged, painful, and occasionally atypical lesions
- HSV-2 infection, with or without symptoms, is probably the single most important STI worldwide in enhancing HIV transmission efficiency
- Studies in Zimbabwe and Tanzania consistently demonstrate an association between new HSV-2 infection and HIV-1 acquisition

Herpes in Pregnancy

- Risk for transmission to neonate from infected mother is high (30-50%) among women who acquire genital herpes near the time of delivery
- Risk of transmission to neonate low (<1%) in women with histories of recurrent herpes at term or who acquire genital HSV during first half of pregnancy
- Prevention of neonatal herpes depends on avoiding acquisition of HSV during late pregnancy and avoiding exposure of infant to herpetic lesions during delivery
- Ask all pregnant women whether they have a history of genital herpes
- At onset of labour
 - Question all women about symptoms of genital herpes, including prodrome
 - Examine all women for herpetic lesions
- Women without symptoms or signs of genital herpes or its prodrome can deliver vaginally
- Acyclovir may be administered orally to pregnant women with first episode of genital herpes or severe recurrent herpes and should be administered IV to pregnant women with severe HSV infection
- Safety of systemic acyclovir for pregnant women in their 1st trimester has been established
- Acyclovir is also recommended for treatment of severe infection in women in their 2nd or 3rd trimester
- Regimen for neonates: Acyclovir, 10 mg/kg intravenously, 3 times a day for 10 to 21 days

Patient Counselling and Education

- Goals:
 - Help patients cope with the infection
 - Prevent sexual and perinatal transmission
- Counselling should include:
 - Nature of the infection
 - Transmission
 - Treatment issues
 - Risk-reduction strategies
- Emphasise potential for recurrent episodes, asymptomatic viral shedding, and sexual transmission

Management and Counselling of Sex Partners and Couples

New Herpes in a Monogamous Couple

- A newly diagnosed infection does not mean that the patient acquired HSV from their current partner(s).
- Genital herpes sometimes first appears in a longstanding relationship.
 - Chronic infection, first recognised symptoms
 - First transmission from asymptomatic partner
- Usually not necessary to invoke other partners. If in doubt, speak with each partner separately.
- Never necessary to mention toilet seats, fomites, or other forms of “magical” transmission.

Partner Management: HSV

- Symptomatic sex partners: Evaluate and treat in the same manner as patients who have genital lesions
- Asymptomatic sex partners
 - Ask about history of genital lesions
 - Educate to recognise symptoms of herpes
 - Treat for syphilis and chancroid only, not HSV

Special Considerations for the Treatment of Syphilis

- For persons allergic to penicillin, treat with Doxycycline 100 mg orally BID for 10 days.
- For pregnant women who are allergic to penicillin, treat with Erythromycin 500 mg orally QID for 10 days.

Vaginal Discharge Syndrome

What is Vaginal Discharge Syndrome?

- Abnormal discharge originating in the uterus, cervix, or vagina
- Abnormal may be defined as increased from usual amount, or a change in colour (bloody, yellow, greenish) or odour

Vaginitis and Cervicitis

Two conditions should be considered in women presenting with vaginal discharge:

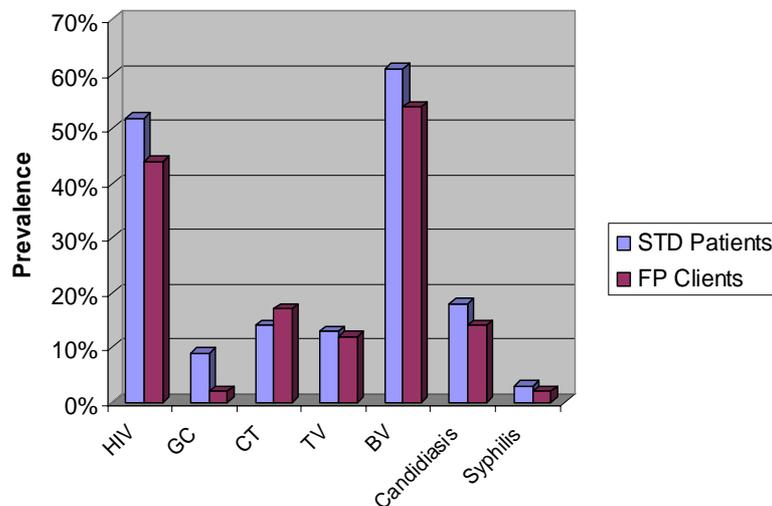
- Vaginitis – most common cause of symptomatic vaginal discharge
- Cervicitis – more serious, often caused by gonococcal or chlamydial infection, both of which may result in pelvic inflammatory disease (PID), a serious complication

Major Aetiologies of Vaginitis

- Trichomoniasis – caused by *Trichomonas vaginalis*
- Vulvovaginal Candidiasis (VVC)
- Bacterial Vaginosis (BV)

Aetiologies of Vaginal Discharge: Botswana

Prevalence of Infection among Women with Abnormal Vaginal Discharge, Botswana



Vaginal Discharge Differentiation

	Normal	Trichomoniasis	Candidiasis	Bacterial Vaginosis
Symptom presentation		Itch, discharge, 50% asymptomatic	Itch, discomfort, dysuria, thick discharge	Odour, discharge, itch
Vaginal discharge	Clear to white; may vary with cycle	Frothy, grey or yellow-green; malodourous	Thick, clumpy, white "cottage cheese"	Homogenous, adherent, thin, milky white; malodourous "foul, fishy"
Clinical findings		Cervical petechiae; "strawberry cervix"	Inflammation and erythema	
Vaginal pH	3.8 - 4.2	> 4.5	Usually \leq 4.5	> 4.5
KOH "whiff" test	Negative	Often positive	Negative	Positive
Saline wet mount	Lactobacilli predominate	Motile flagellated protozoa, WBCs may be present	Few WBCs	Clue cells (\geq 20%), no/few WBCs
KOH wet mount	Yeast may be seen		Pseudohyphae or spores if non- <i>albicans</i> species	

Major Aetiologies of Cervicitis

- Chlamydia: Caused by *C. trachomatis*
- Gonorrhoea: Caused by *N. gonorrhoeae*

Gonorrhoea and Chlamydia Overview

- Transmission exclusively by sexual contact
- Uncomplicated infection includes cervicitis, urethritis, pharyngitis, conjunctivitis, and proctitis
- Gonococcal and chlamydial cervicitis are usually asymptomatic; if symptoms are present, they are generally non-specific

Chlamydial and Gonococcal Infection in Women

- Cervicitis
 - Majority (70%-80%) are asymptomatic
 - Local signs of infection, when present, include:
 - Mucopurulent endocervical discharge
 - Edematous cervical ectopy with friability
- Urethritis
 - Usually asymptomatic
 - Signs/symptoms, when present, include: dysuria, frequency, pyuria

Gonococcal Cervicitis



Source: CDC/NCHSTP/Division of STD Prevention, STD Clinical Slides

Chlamydial Cervicitis



Source: STD/HIV Prevention Training Center at the University of Washington/Connie Celum and Walter Stamm

Remember!

Infections of the cervix:

- usually are asymptomatic
- represent an important reservoir for the sexual and prenatal transmission of pathogenic microorganisms
- are the usual source from which upper-genital-tract infections develop

Gonorrhoea and Chlamydia: Complications in Women

- Accessory gland infection
 - Bartholin's glands
 - Skene's glands
- Pelvic Inflammatory Disease (PID)
 - Salpingitis
 - Endometritis
- Perihepatitis (Fitz-Hugh-Curtis Syndrome): inflammation of the membranous capsule that covers the liver
- Reiter's syndrome: Triad of conjunctivitis, arthritis, and urethritis thought to be provoked by highly activated immune response to infection with chlamydia

Bartholin's Abscess

Source: CDC/NCHSTP/Division of STD Prevention, STD Clinical Slides

Definition of PID

PID is any inflammatory process that involves the upper genital tract, including:

- Endometritis
- Salpingitis
- Oophoritis
- Tubo-ovarian abscess
- Pelvic peritonitis

and (not strictly genital tract)

- Perihepatitis

Pelvic Inflammatory Disease: Pathogenesis

- Starts as lower-genital-tract infection that can remain undetected in the cervix for a period of time.
- Infection then spreads into upper genital tract via the endometrium.
- While chlamydia or gonorrhoea are classic causes of PID, the disease almost always involves a number of bacteria, including the vaginal bacteria that cause BV.

Acute Salpingitis



Source: Cincinnati STD/HIV Prevention Training Center

Symptoms Suggestive of PID

- lower abdominal pain
- dyspareunia
- vaginal discharge
- menometrorrhagia (irregular and/or heavy menstrual periods)
- dysuria
- pain associated with menses
- fever
- nausea and/or vomiting

Pelvic Inflammatory Disease: Major Aetiologies

- Gonorrhoea—caused by *N. gonorrhoeae*
- Chlamydia—caused by *C. trachomatis*
- Several anaerobic bacterial species found in the vagina—all of the bacteria associated with bacterial vaginosis

For this reason, antibiotic therapy of PID must be relatively broad

Consequences of Acute PID

- Any sequelae: 25%
 - Involuntary infertility: 21%
- Tubal occlusion: 17%
- Ectopic pregnancy: 6 to 10 times increased likelihood
- Chronic pelvic pain: 18% (may be confused with acute PID)

Given the frequency of sequelae, recommendation is generally to err on the side of over-treatment, given the low sensitivity of current diagnostic criteria.

Remember!

- Diagnosis of PID based on clinical grounds is risky
- There is no composite index to predict the presence or absence of PID with acceptable level of certainty
- The consequences of leaving PID untreated are unacceptable
- It is better to err on the side of over-diagnosis
- Not all of the abdominal pains are related to STIs!
- Pregnancy-related abdominal pains are potentially life threatening

Trichomoniasis

- Transmission via sexual contact
- Causative agent: *T. vaginalis*
- Commonly asymptomatic
- Symptoms include:
 - Increased vaginal discharge, often profuse
 - Sometimes malodour
 - Sometimes vulvar pruritis
 - Cervical petechiae or “Strawberry cervix”

Typical Vaginal Discharge Caused by Trichomoniasis



Source: Seattle STD/HIV Prevention Training Center at the University of Washington

“Strawberry Cervix” Due to *T. Vaginalis*



Source: Claire E. Stevens/Seattle STD/HIV Prevention Training Center at the University of Washington

Bacterial Vaginosis (BV)

- Characterised by absence of *Lactobacillus* in the vagina and overgrowth of vaginal anaerobes
- Not associated with a sexually transmitted pathogen
- Commonly asymptomatic
- Symptoms include:
 - Genital malodour, often described as “fishy” (most common symptom)
 - Increased vaginal discharge
- On examination:
 - Grey-white discharge adherent to vaginal epithelium
 - Vaginal epithelium does not appear inflamed

Vulvovaginal Candidiasis Overview

- Generally not sexually transmitted
- Caused by overgrowth of *C. albicans* and other non-*albicans* species
- Typical signs and symptoms include:
 - Vulvar (i.e., relating to the vulva) burning pain or pruritis
 - “External” dysuria due to urine contacting inflamed introitus and labia
 - If discharge is present, usually odourless and white with curd-like appearance
 - Red and inflamed vaginal epithelium
 - Skin excoriation as a result of scratching
 - Adherent plaques of white material on vaginal epithelium

Vulvovaginal Candidiasis



Source: Health Canada, Sexual Health and STI Section, Clinical Slide Gallery

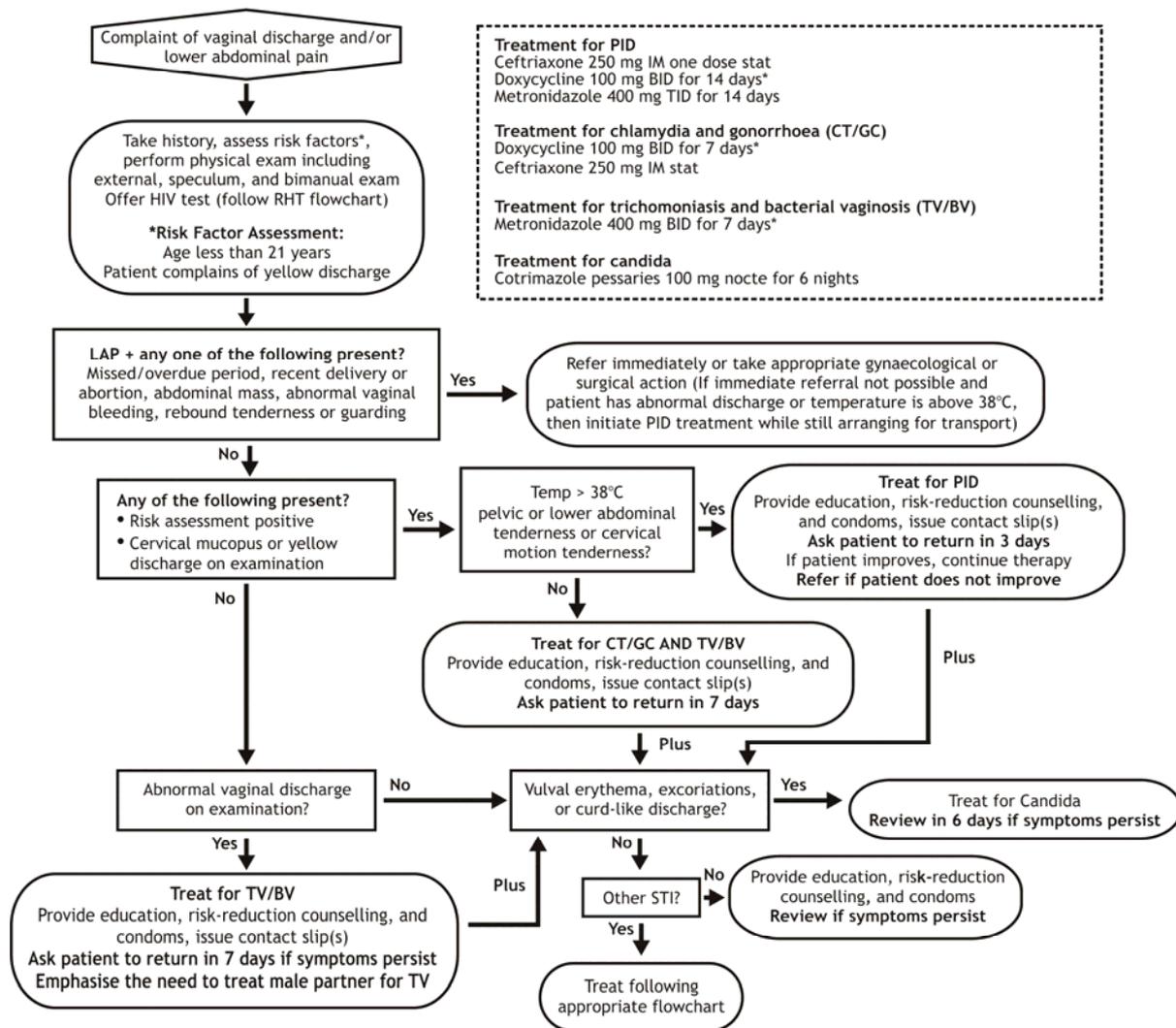
Botswana STI Study 2002

- Factors found to predict cervical infection were cervical mucopurulent discharge and yellow vaginal discharge
- Risk factors for PID are now defined as:
 - age < 21 years
 - patient complains of yellow discharge

Workup of Abnormal Vaginal Discharge/Lower Abdominal Pain

- Patient history
- Visual inspection of internal/external genitalia
- Visual appearance of discharge

Vaginal Discharge and Lower Abdominal Pain - Cervical or Vaginal Infection



Remember!

In the absence of clinical evidence indicative of cervicitis, women who are less than 21 years old or those who are complaining of yellow discharge have to be treated for cervicitis even if your physical examination is not consistent with cervical mucopus or yellow discharge.

Partner Management

- If patient is treated for TV/BV only: Treat male sex partner(s) for trichomoniasis regardless of whether or not symptoms are present:
 - Metronidazole 400 mg BID for 7 days
- If patient is treated for CT/GC and TV/BV: Treat for gonorrhoea and chlamydia regardless of whether or not symptoms are present
 - Ceftriaxone 250 mg IM stat AND
 - Doxycycline 100 mg BID for 7 days
 - Male partners should also be treated for TV

Prevention Counselling

- Nature of the infection
 - Commonly asymptomatic in men and women
 - An increased risk in women of upper-tract damage with re-infection
- Transmission issues
 - Effective treatment of chlamydia and/or gonorrhoea may reduce HIV transmission
 - Abstain from sexual intercourse until partners are treated and for 7 days after single-dose therapy or until completion of a 7- day regimen

Case Study of Vaginal Discharge and Lower Abdominal Pain

Use the Vaginal Discharge and Lower Abdominal Pain Flowchart on the previous page of this handbook to answer the questions in italics from the following case study. The instructor will also present the answers as part of this training. Use the space after each question to fill in the answer.

- A 25-year-old woman comes to the clinic complaining of abnormal vaginal discharge. She has not missed a period. On physical examination you find a milky white discharge. She has no fever, no abdominal tenderness, no cervical mucopus, and no cervical motion tenderness.
 - *How would you treat her?*

Urethral Discharge Syndrome

What is Urethral Discharge Syndrome?

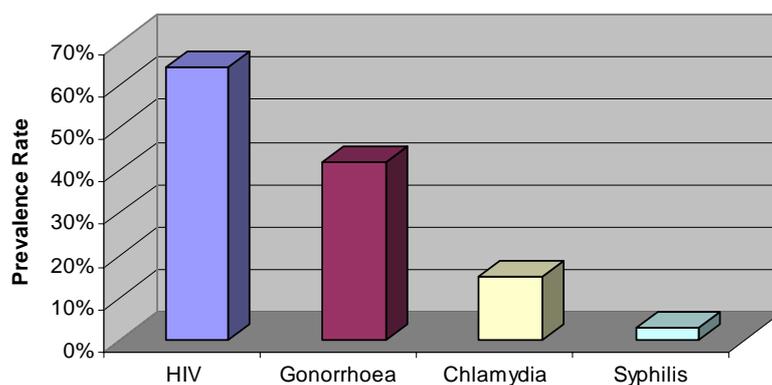
- Discharge coming from the urethral meatus
- May be frank pus, mucopurulent, or serous (clear)
- Occasionally discharge will be white in colour

Aetiology of Urethral Discharge

- Gonorrhoea—caused by *N. gonorrhoeae*
- Chlamydia—caused by *C. trachomatis*
- Trichomoniasis—caused by *Trichomonas vaginalis*: less common cause, but associated urethral inflammation enhances likelihood of HIV shedding and probably transmission/acquisition of HIV

Aetiology of Urethral Discharge: Botswana

Prevalence of STI infection among men with Urethral Discharge Syndrome – Botswana



Diagnosis of Urethral Discharge

- Patient history
- Visual inspection of internal/external genitalia
- Appearance of discharge

Botswana STI Study: Major Findings

- Among men with urethral discharge, one in every four cases positive for chlamydia or gonorrhoea would have gone untreated without the addition of a risk assessment to the flowchart.
- Risk assessment increases sensitivity to 98%, and the total cost per infection treated remains similar to the original flowchart.

Male Urethritis Caused by *C. trachomatis*

- Majority (>50%) asymptomatic
- Symptoms/signs if present: Mucoid or clear urethral discharge, dysuria; occasionally, urethral discharge may be grossly purulent
- Incubation period unknown (probably 5 to 10 days in symptomatic infection)

Chlamydial Urethritis: Mucopurulent Discharge



Source: Seattle STD/HIV Prevention Training Center at the University of Washington/UW HSCER Slide Bank

C. Trachomatis Complications in Men

- Epididymitis: Occurs in 1-2% of men with untreated chlamydial urethritis
- Reiter's syndrome: Triad of arthritis, conjunctivitis, urethritis that occurs weeks to months after untreated chlamydial infection

Male Urethritis Caused by *N. Gonorrhoea*

- Inflammation of the urethra
- Symptoms
 - Typically purulent or mucopurulent urethral discharge
 - Often accompanied by dysuria
 - Discharge may be clear or cloudy
- Asymptomatic in 10% of cases
- Incubation period: usually 1 to 14 days for symptomatic disease, but may be longer

Gonococcal Urethritis: Purulent Discharge



Source: Seattle STD/HIV Prevention Training Center at the University of Washington/UW HSCER Slide Bank

Gonorrhoea: Syndromes in Men and Women

- Anorectal infection
- Pharyngeal infection (usually asymptomatic)
- Conjunctivitis
- Disseminated gonococcal infection (DGI): Includes septic arthritis, which is typically monoarticular

HIV and Urethral Discharge Syndrome

- No special treatment considerations
- Urethritis may facilitate HIV transmission, and increases the amount of HIV shed in urethral secretions and semen
- In 2001, 64% of men in Botswana seeking treatment for urethral discharge were found to be HIV positive (MOH, CDC-BOTUSA)

Partner Management

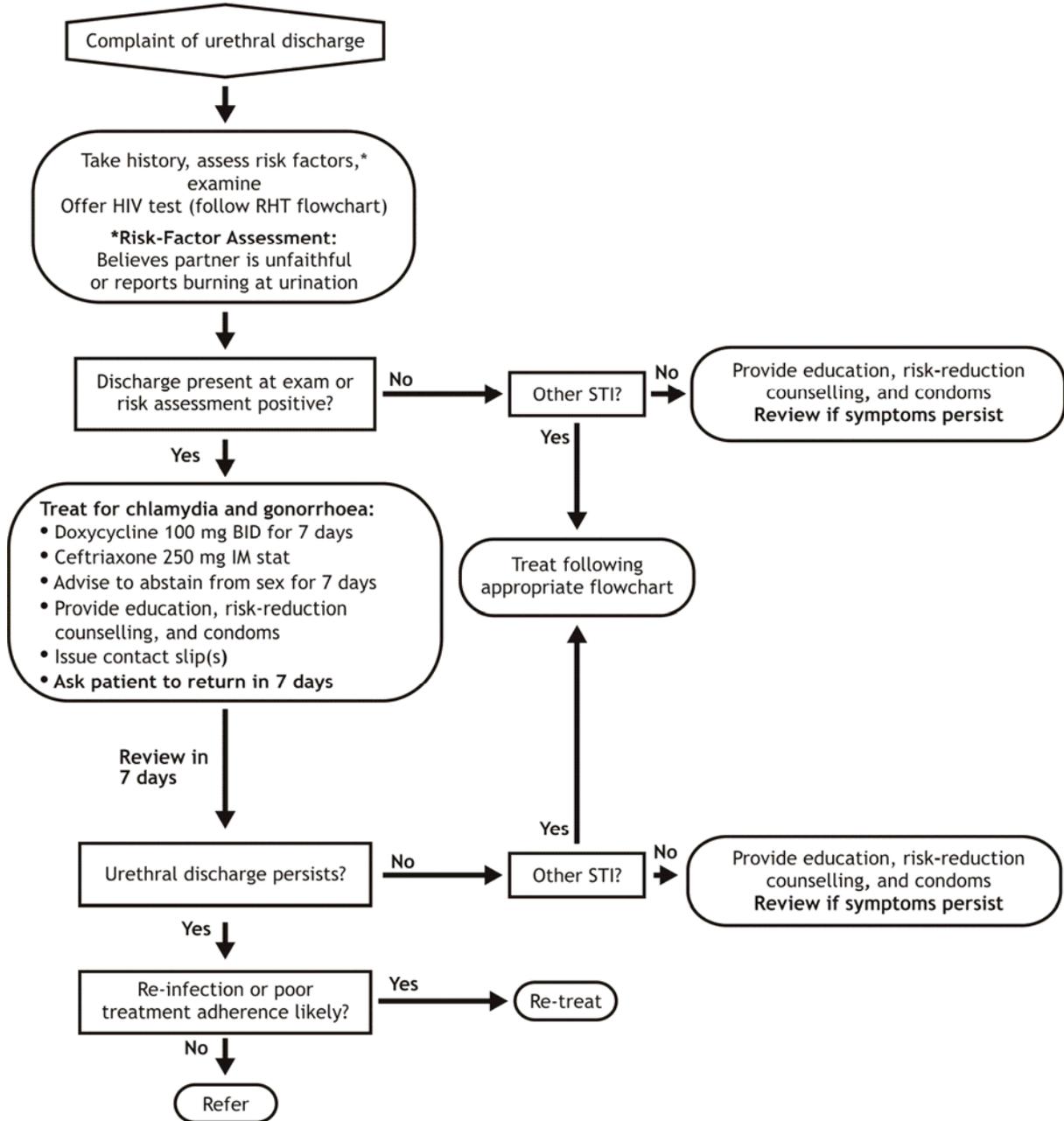
Treat sex partner(s) for gonorrhoea and chlamydia regardless of whether symptoms are present.

- Ceftriaxone 250 mg IM stat AND
- Doxycycline 100 mg BID for 7 days

Prevention Counselling

- Nature of the infection
 - Chlamydia is commonly asymptomatic in men & women
 - Gonorrhoea is usually asymptomatic in women
 - Both easily transmitted during asymptomatic phase
 - Both have serious adverse effects on women's reproductive health if untreated
- Transmission issues
 - Effective treatment of chlamydia and/or gonorrhoea may reduce HIV transmission
 - Abstain from sexual intercourse until partners are treated and for 7 days after single-dose therapy or until completion of a 7-day regimen

Urethral Discharge Flowchart



Inguinal Bubo

What is Inguinal Bubo?

- Painful swelling in the inguinal region caused by acutely inflamed and possibly suppurating inguinal lymph nodes
- Pus may form within lymph node as part of the inflammatory process and a deep abscess can develop

STI-Related Aetiology of Inguinal Bubo

- Ulcerative STIs
 - Chancroid
 - Caused by *Haemophilus ducreyi*
 - Syphilis
 - Herpes
 - When complicated by bacterial infection
- Lymphogranuloma Venereum (non-ulcerative)
 - caused by *Chlamydia trachomatis*

Other Reasons for Enlargement of Inguinal Lymph Nodes

- Infection of the skin on thigh, leg, foot, toes, buttock, anus, perineum, scrotum, penis, labia, vulva, or vagina:
 - Usually unilateral inguinal lymphadenopathy, depending on affected skin location
- Systemic infection such as hepatitis B, HIV infection, infectious mononucleosis, syphilis, bartonellosis (cat scratch disease):
 - Usually bilateral lymphadenopathy
- Oncologic disease, such as lymphoma, leukaemia, Kaposi's sarcoma:
 - Usually bilateral lymphadenopathy

Chancroid: Overview

- Caused by the bacterium *Haemophilus ducreyi*
- Develops resistance to antibiotics
- Mode of transmission: Direct contact with an infectious lesion
- Incubation period: 2 to 10 days
- Lesion is typically an ulcer:
 - Classically painful
 - Often associated regional lymphadenopathy
 - Unilateral lymph node enlargement may occur; if purulent is called a bubo

Chancroid Lesion



Chancroid lesion of the groin and penis affecting the ipsilateral inguinal lymph nodes
Photo: CDC

Syphilis: Overview

- Caused by the bacterium *Treponema pallidum*
- Has distinct early (primary, secondary, and early latent) and late (late latent and tertiary) stages over several years or decades, interspersed with periods of inactive (latent) infection
- Is a disseminated infection from the time of initial infection
- Mode of transmission: Sexually transmissible only when treponemes are present, either at the site of the chancre in primary syphilis, or in the blood or skin during secondary and early latent stages
- Incubation period: Usually 2 to 6 weeks

Syphilis: Clinical Features, Primary Stage



Source: www.dermnet.com

Lymphogranuloma Venereum (LGV): Overview

- Caused by L1, L2, and L3 serovars of *Chlamydia trachomatis*
- Major pathology occurs in the lymphatic system
- Occurs in 3 stages:
 - Primary – Ulcer Stage
 - Secondary – Lymphatic Stage
 - Tertiary - Lymphoedema stage

Characteristics of Secondary LGV

- Bubo may be grooved by the inguinal ligament (“groove sign” of LGV)
- Bubo typically described as being multilocular as each lymph node may suppurate individually
- Development of multiple abscesses and eventually sinuses
- External genitalia may be oedematous and swollen
- May be anatomical distortion and irregularity, particularly of the penis

LGV



Source: www.dermnet.com

Penile abscess caused by LGV

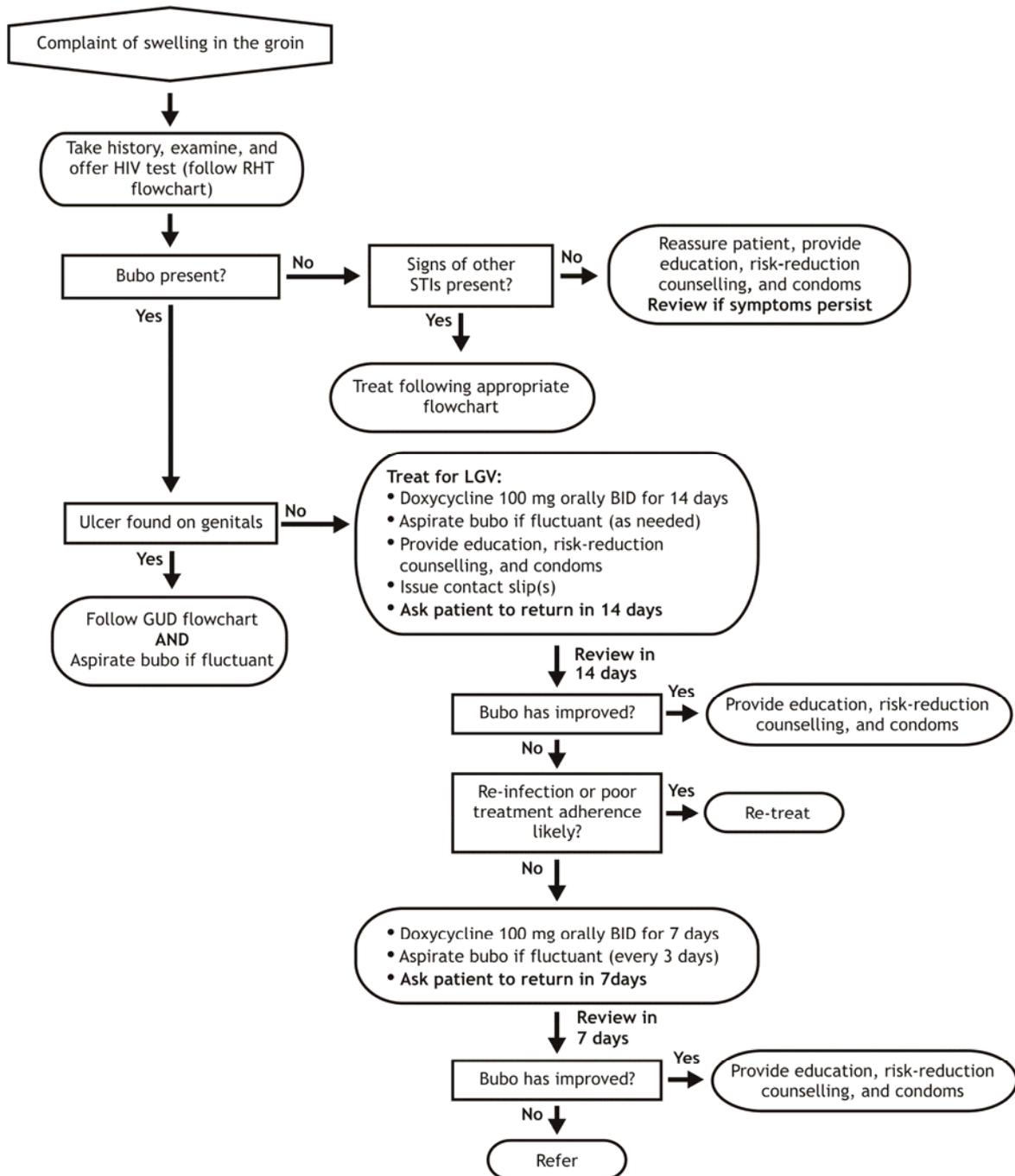
Summary: Diagnosis of Inguinal Bubo

- Patient history
- Visual inspection of internal/external genitalia
- Appearance of inguinal lymph nodes (both sides)
- Presence of genital ulcers

Partner Management

- For male or female partners of a patient with Inguinal bubo **without** genital ulcers, treat for lymphogranuloma venereum - doxycycline 100 mg BID for 14 days.
- For male or female partners of a patient with Inguinal bubo **with** genital ulcers, treat for syphilis and chancroid:
 - Ceftriaxone 250 mg IM stat AND
 - Benzathine penicillin 2.4 IU IM stat

Inguinal Bubo Flowchart



Genital Warts

What Are Genital Warts?

- Also called condylomata acuminata or venereal warts
- Growths in the genital area caused by a sexually transmitted papillomavirus
- Present in 4% to 14% of men and women seeking STI treatment in sub-Saharan Africa

Aetiology of Genital Warts

- Human Papillomavirus (HPV)
- “Low-risk” HPV strains, mainly types 6 and 11, cause exophytic (growing above the skin) anogenital warts
- “High-risk” HPV types, especially types 16, 18, 31, 33, and 35, are associated with dysplasia and cancer of the cervix, penis, anus, and vulva
- Patients can be infected simultaneously with multiple HPV types

Clinical Features of Genital Warts

- Visible warts without pain or discomfort are the most common complaint
- Large or traumatised warts may ulcerate or become secondarily infected, with itching, pain, discharge, or malodour
- Urethral warts in men may cause altered urine stream and (rarely) outflow obstruction

Diagnosis of Genital Warts

- Patient history
- Visual inspection of internal/external genitalia
- Speculum examination (females) to look for signs of cervical infection
- Presence of anogenital exophytic growths

Types of Genital Warts: Condylomata acuminata

- Moist or partially keratinised surfaces (e.g., introitus, anus, under foreskin)
- Typical “cauliflower” or clustered appearance
- Hand-held magnification shows central venules in frond-like excrescences (growths)

Condylomata Acuminata



Source: Cincinnati STD/HIV Prevention Training Center

Types of Genital Warts: Keratotic

- Thorny, often cauliflower-like appearance
- Typically on dry skin (e.g., penile shaft, scrotum, labia majora)

Keratotic



Source: Cincinnati STD/HIV Prevention Training Center

Types of Genital Warts: Papular

- Smooth surfaces
- Less thorny than keratotic warts

Papular



Source: Cincinnati STD/HIV Prevention Training Center

Types of Genital Warts: Flat

- Macular, sometimes faintly raised
- Usually invisible to naked eye
- May become prominent after the application of 3-5% acetic acid to the mucosal surface

Additional Images



Source: Cincinnati STD/HIV Prevention Training Center

Genital Warts in Infants and Children

- May occur in both male and female prepubertal children
- Appearance of warts several weeks after birth suggests transmission from mother during delivery
- Warts in older children may be due to reactivation of latent infection acquired at birth or acquisition after birth by sexual or non-sexual contact

Cancer and HPV: Buschke Loewenstein Tumour

- Giant condyloma
- Initial wart enlarges rapidly to produce a foul-smelling, exudating or haemorrhagic exuberant cauliflower-like growth
- Does not metastasise but causes extensive local destruction of tissue leading to formation of multiple fistulae
- Lesions may be found on penis, vulva, vagina, or anorectal areas
- Lesions usually caused by HPV type 6 or 11
- Malignant transformation into squamous carcinoma is known to occur

Cancer and HPV: Lower Genital Tract

- Because HPV infection is the major cause of cervical cancer, all women should have regular Pap smears to detect and treat intraepithelial neoplasia before invasive cancer develops.
- Women with a history of STI may be at increased risk for cervical cancer, and women seeking STI care may have other risk factors that place them at even greater risk.

Management of Genital Warts: Chemical Destruction

- **Podophyllin** - 15-20% solution of tincture of benzoin
 - Apply petroleum jelly around the normal skin
 - Apply Podophyllin carefully and leave on for 2 –to 4 hours
 - Wash off with soap and water
 - May be repeated at weekly intervals as needed

- **Podophyllotoxin** - 0.5% paste
 - Less toxic than podophyllin
 - Patient can apply to accessible warts 2x/day for 3 days followed by 4-day interval
 - Repeat course the following week
- **Trichloroacetic acid** - 90% solution
 - Caustic agent
 - May be applied once a week for a maximum of 6 weeks
- **5-fluorouracil** - 5% cream
 - Used to treat resistant warts, in particular, urethral warts

Management of Genital Warts: Physical Destruction

- Warts may be excised surgically or may be removed by electrocautery or cryotherapy
- Flat warts should be cauterised

Special Considerations: HIV-infected patients

- Higher prevalence of genital warts in HIV-infected individuals
- Warts may be multifocal and extensive, response to treatment may be poor
- Recurrences occur often
- Greater likelihood of malignant transformation

Patient Education

- HPV is a common viral infection in sexually active adults
- Incubation period, likelihood of transmission to future partners, and duration of infectivity are unknown
- Current sex partner may not be source of infection
- Natural history is generally benign
- Cancer and other complications are rare
- Change in frequency of Pap tests is not indicated
- Types causing warts are not oncogenic
- Condoms may help prevent some infections, but actual efficacy is unknown

Acute Scrotal Swelling

What is Acute Scrotal Swelling?

- Commonly encountered in clinical practice
- May be due to a long-standing problem or to a recent or acute illness
- Cause can be either STI- or non-STI-related
- Can be caused by an irreducible or strangulated inguinal hernia

Aetiologies of Acute Scrotal Swelling: STI-Related

- Gonorrhoea—caused by *N. gonorrhoeae*
- Chlamydia—caused by *C. trachomatis*
- Gram-negative bacteria—if STI-related, usually seen in men who practise receptive anal intercourse
- These infections can result in acute epididymitis

Acute Epididymitis: Overview

- Results from ascending lower-urinary-tract infection
- Usually accompanied by urethritis
- Occasionally caused by non-sexually transmitted pathogens:
 - Gram-negative enteric bacteria (usually associated with concomitant prostatitis), tuberculosis, systemic fungal infections, and mumps virus

Acute Epididymitis: Clinical Features

- Patients usually complain of unilateral pain and swelling of the scrotum.
- On examination, scrotal sac appears distended and both testis and epididymis are swollen and tender.
- Symptoms usually develop over 1 to 2 days.
- Pain may be excruciating, especially on palpation of the scrotal sac.
- Urethral discharge may be present, or patient may report recent evaluation for urethral discharge

Acute Epididymitis



Source: Cincinnati STD/HIV Prevention Training Center

Non STI-Related Aetiologies of Acute Scrotal Swelling

- Testicular Torsion—urgent surgery required to correct the torsion and to repair unaffected testicle
- Testicular Trauma—occurs as a result of sporting injury or violence
- Irreducible or Strangulated Inguinal Hernia—urgent surgical treatment necessary

Scrotal Swelling from Inguinal Hernia



Source: Cincinnati STD/HIV Prevention Training Center

Diagnosis of Acute Scrotal Swelling

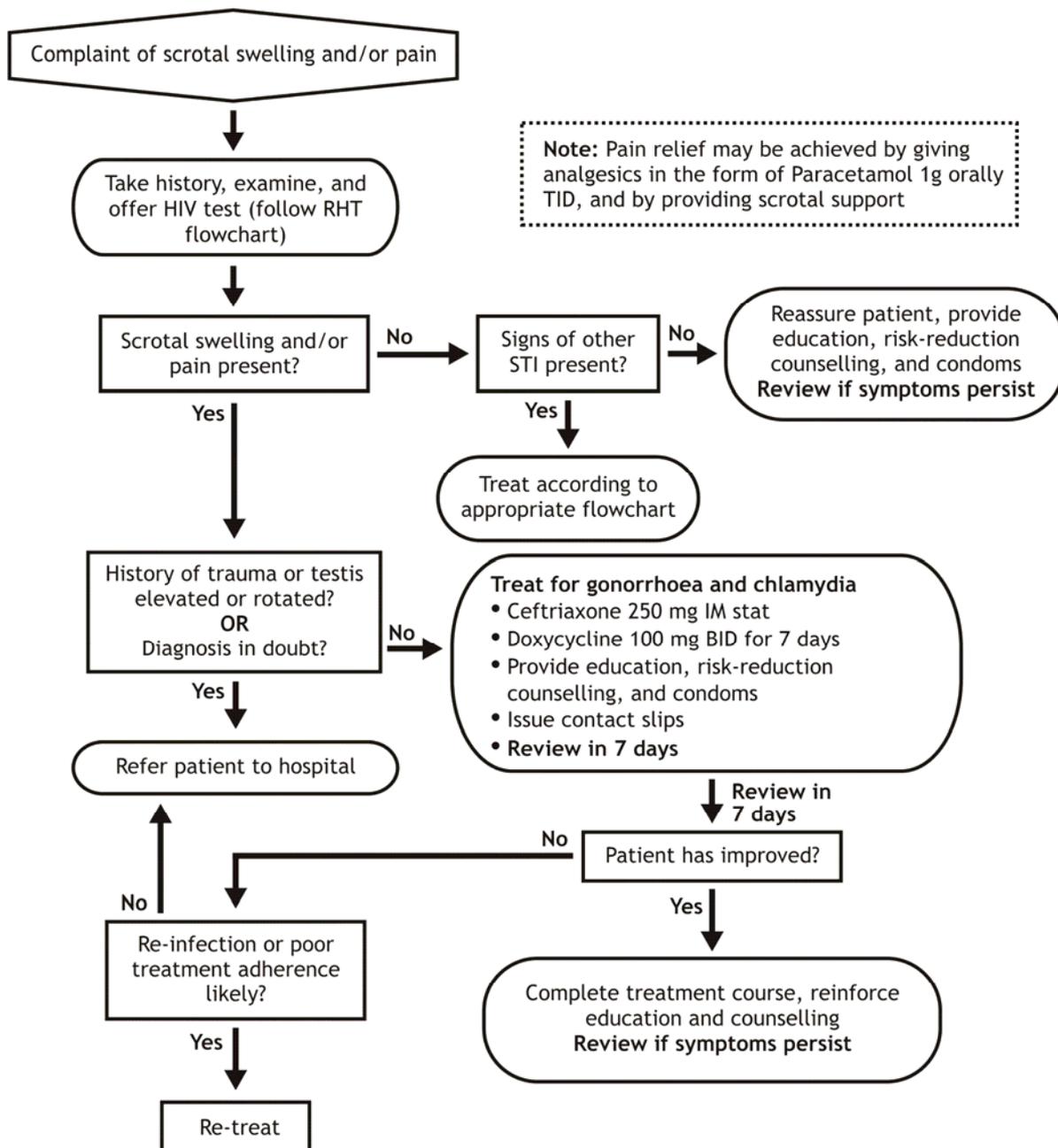
- Patient History
 - Find out if patient has previously had a hernia
 - Ask if he has been injured and whether he has had any STI in preceding 6 weeks
- Physical Examination
 - When palpating the scrotal sac, compare left and right testes
 - Note swelling, pain, and tenderness
 - Note position and shape of testicles
 - Look for urethral discharge

Partner Management

Treat for gonorrhoea and chlamydia infection regardless of whether or not symptoms are present:

- Ceftriaxone 250 mg IM stat AND
- Doxycycline 100 mg BID for 7 days

Acute Scrotal Swelling Flowchart



Neonatal Conjunctivitis

What is Neonatal Conjunctivitis?

- Also called ophthalmia neonatorum
- Purulent conjunctivitis occurring in an infant during the first month of life
- Septic conjunctivitis may lead to blindness in neonates if left untreated

Aetiology of Neonatal Conjunctivitis

The following infections can be passed from mother to baby during birth:

- Chlamydia—caused by *Chlamydia trachomatis*
- Gonorrhoea—caused by *Neisseria gonorrhoeae*
- Herpes Type 1 and Type 2—caused by HSV-1 and HSV-2

Clinical Features: Chlamydial Conjunctivitis

- Unilateral or bilateral watery discharge, which may become more copious and purulent later
- Ranges from mild hyperemia with scant mucoid discharge to eyelid swelling, chemosis, and pseudomembrane formation
- Most cases are mild and self-limited
- Blindness is rare and much slower to develop than in gonococcal conjunctivitis
- May be associated with extraocular involvement, including pneumonitis, otitis, and pharyngeal and rectal colonization
- Pseudomembranes, thickened palpebral conjunctiva, significant peripheral pannus, and/or corneal opacification may be present.

Acute Recurrent Chlamydial Conjunctivitis in a 2-Month-old



Clinical Features: Gonococcal Conjunctivitis

- Most serious type, usually occurring 24 to 48 hours following birth.
- Typically associated with marked lid oedema, chemosis, and purulent discharge
- Classic presentation of purulent conjunctivitis
- Corneal involvement has been reported, including diffuse epithelial oedema and ulceration that may progress to perforation of the cornea and endophthalmitis
- Patients also may have systemic manifestations
- A conjunctival membrane may be present

Gonococcal Conjunctivitis with Profuse Purulent Exudates



Photo: K Holmes

Clinical Features: Herpes Simplex Conjunctivitis

- Typically occurs in first 2 weeks after birth
- Usually presents in infants with generalised herpes simplex with corneal epithelial involvement or vesicles on the skin around eye
- Ocular involvement may follow systemic herpes infection or vesicular lesions on skin or lid margins
- May present with nonspecific lid oedema, moderate conjunctival injection, and nonpurulent serosanguineous discharge; may be unilateral or bilateral
- Microdendrites or geographic ulcers, rather than typical dendrites seen in adults, are most typical signs
- Conjunctival membrane may be present

Neonatal Conjunctivitis and Keratitis Caused by HSV-2 and Chlamydia

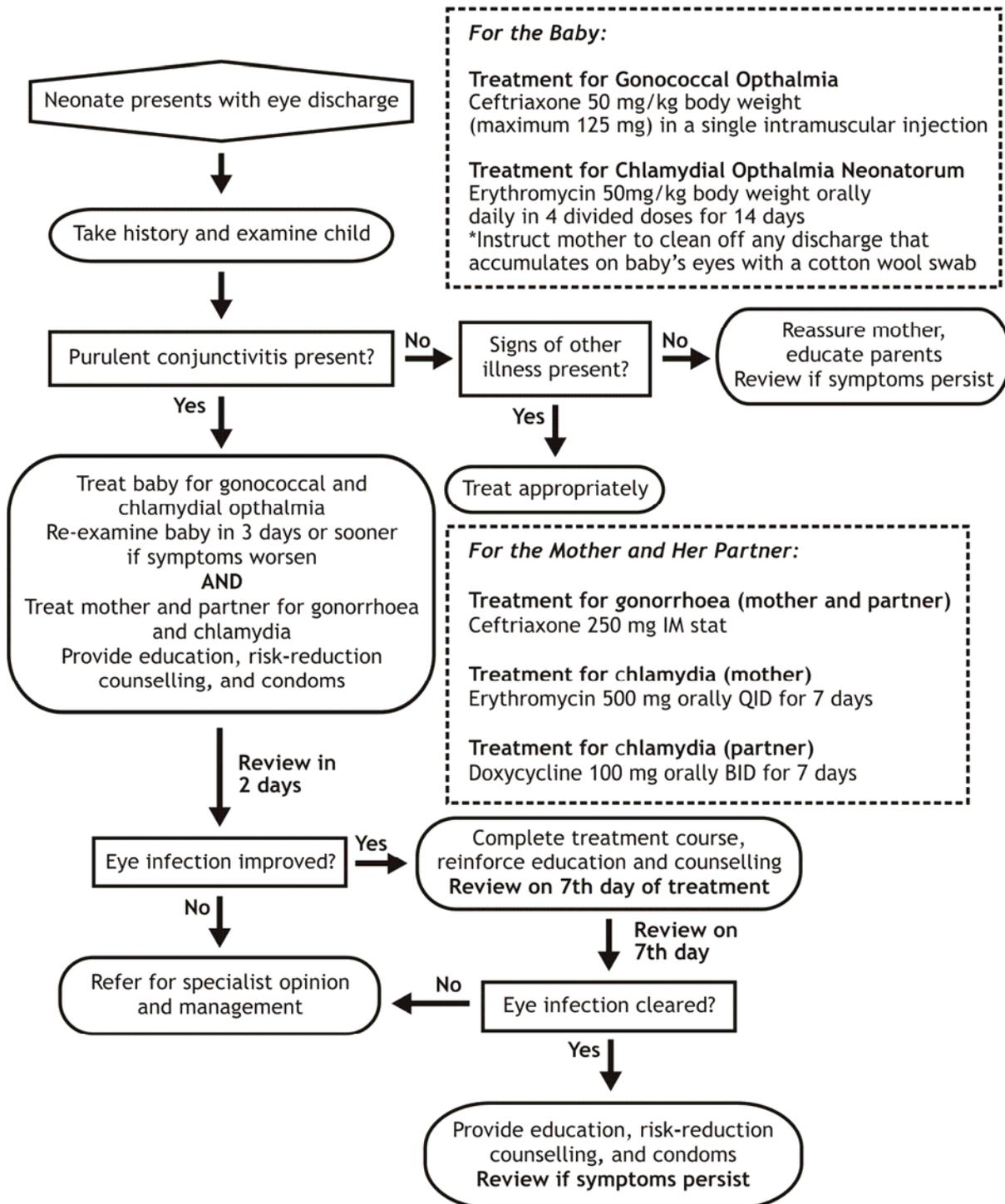


Ophthalmia Prophylaxis

As soon as possible after birth, all babies should have 1% tetracycline eye ointment instilled:

- Clean face and eyes with dry cotton wool
- Open eye by gently pulling down on lower eyelid and cheek and pulling up on upper eyelid
- Instill 1% tetracycline eye ointment into lower conjunctival sac
- Repeat procedure and instill ointment into other eye
- If face and eyelids are swollen and oedematous, make sure ointment is placed in lower conjunctival sacs, not on eyelids.

Ophthalmia Neonatorum Flowchart



 **Notes**

Session 6:
Risk-reduction counselling

Length: 25 minutes
STI Reference Manual: Chapter 3

6.1 Session Overview

Aim

The aim of this session is to increase providers' skills for having effective risk-reduction discussions with patients and for assisting patients in the development of a risk-reduction plan.

Learning Objectives

- Identify a patient's level of readiness to change their behaviours according to the "stages of change" model
- Name risk-reduction counselling techniques appropriate for different "stages of change"
- Identify techniques to assist a patient in the development of a realistic, personalised risk-reduction plan

Key Points

- Health education is an interactive process that involves assessing what your patient already knows and then building on that knowledge.
- Risk-reduction discussions and behaviour-change counselling are an important component of STI prevention in a primary-care setting
- It is important to work together with the patient to find risk-reduction strategies that are realistic and achievable
- The "stages of change" model provides a tool for evaluating a patient's level of readiness to change behaviour as well as appropriate counselling strategies for each level
- Providers can lead patients through role-plays and other exercises in order to increase patients' motivation and skills to successfully carry out their risk-reduction plans

Session Activities

- Video Segment

The following pages include a worksheet that will be used during the activities listed above. Your instructor will guide you in the proper use of the worksheet.

6.2 Behaviour Change

Definition of Behaviour

- A personal way of living, conduct, perception of ideas, norms, or attitudes, that can be seen by how one reacts to certain situations.

Behaviour Change

- Acceptable, consistent, gradual shift from a risky behaviour to a low-risk or risk-free way of living, especially in terms of STI/HIV infection.
- Takes into account the patient's culture, sexual orientation, age, and developmental level.

Things to Note about Behaviour

- Behaviour is caused
- Behaviour is goal-directed
- Behaviour that can be observed is measurable
- Behaviour is motivated
- Behaviour differs from individual to individual

Examples of “Behaviour Change for Risk Reduction”

- Using condoms
- Decreasing number of casual partners
- “Zero grazing”
- Getting treated early for STIs
- Being abstinent
- Decreasing alcohol or other drug use
- Encouraging partners to get STI treatment and HIV testing

Importance of Risk-reduction Discussions

- Helps patients re-examine long-standing habits and situations that are putting them at risk
- Forms the basis for an effective, individually tailored risk-reduction plan
- Assesses patients' individual skills and abilities as well as their willingness to change certain behaviours

6.3 Stages of Change

Determining Stage of Change

- Get Permission: “From what you've said it sounds like you might have some risks for HIV and STIs. Would it be OK with you if we spend a few more minutes talking about what ways you might lower your risks for these infections?”
- Explore recent risk incident: “Tell me about the last time you had vaginal or anal sex without using a condom. What happened then?”
- Review previous risk-reduction: “What have you tried before to help you avoid getting HIV or STIs?”

- Synthesis of risk pattern: “So it sounds like ... [describe risk pattern], and you have tried... [describe previous risk-reduction attempts], but sometimes ... (describe barriers) gets in the way. Is that right?”

Stages of Behaviour Change

- Pre-contemplation—sees no need to change
- Contemplation—sees need but is ambivalent (not yet ready to make change consistently)
- Ready for action—decision/initiate change (ready to make change or trying change for <3 months)
- Action—doing target behaviour 3 to 6 months
- Maintenance — integrating/sustaining changed behaviour/working to prevent relapse (change > 6 months)

6.4 Risk-Reduction Plan

Risk-Reduction Discussion Based on Stage of Change

- Pre-contemplation—heighten sense of risk
 - storytelling
 - discuss pros and cons of behaviour
 - discuss impact of behaviour on others
- Contemplation—explore ambivalence
 - discuss pros and cons of change
 - options
- Ready for action/action—risk-reduction plan
 - self-efficacy
 - skill building
- Maintenance—ongoing risk-reduction plan
 - self-efficacy
 - explore triggers for relapse

Communication Guidelines

- Questioning—open-ended questions, encourage patient to talk
- Summarising and paraphrasing—restate in own words
- Reflecting feelings—allows patient to think about feelings
- Giving information—use words patients understand. Ask patient to repeat

Effective Risk Reduction

- Encourage small steps, one step at a time
 - “I’m going to talk with my boyfriend about using condoms before we go out on our date on Friday.”
 - “If I go out with friends, I’ll stick to one or two beers, because when I drink too much I wake up to find the condom still in its package.”
- NOT “all or nothing”
 - “I will use condoms every time I have sex from now on.”
 - “I will never have sex again.”

Reaching Common Ground: Negotiating a Risk-Reduction Plan

- Prioritise risk-reduction behaviour
- Explore behaviours patient will be most motivated and able to change
- If patient selects an “always” or “never” behaviour change, focus on smaller step; if the patient is unsure how to reduce risk, review risks and present a menu of options
- Identify a reasonable, yet challenging, step towards behaviour change
- Break down risk-reduction action into specific, concrete steps
- Problem-solve issues
- Identify supports
- Confirm with patient that the plan is acceptable
- Acknowledge challenges and the opportunity to review on return visit
- Document the plan for the patient and yourself



Group Activity: Watch Video Trigger 4 and use Worksheet 6.1 to take notes



Group Activity: Discuss Risk-Reduction Counselling

- How did the nurse assess the stage of behaviour change of the patient?
- How did the nurse discuss risk-reduction with the patient?
- What kinds of communication techniques did the nurse use to counsel the patient?

Worksheet 6.1

Viewing of Video Segment: Risk-Reduction Counselling

- Objective:** Observe the steps involved in an effective risk-reduction counselling session and use the rating instrument provided to rate the performance of the counsellor.
- Description:** A nurse counsels Peter, a 35-year-old man, on how to reduce his risk of acquiring and transmitting STI/HIV.
- Instructions:** While you watch the video, pay close attention to how the nurse is interacting with her patient and the different techniques she employs to discuss sensitive issues. Fill in the observation checklist below according to your observations.

Scoring Guide: **0= not observed**
 1= observed with beginning learner communication skills or partially completed tasks
 2= observed with expert patient-centred communication skills* and completed all tasks

Determining Stage of Change				
Explored knowledge about HIV/STI risk behaviours	0	1	2	
Clarify misperceptions in words patient can understand	0	1	2	
Assessed patient's perception of importance of changing target behaviour	0	1	2	
Explored recent risk incidents and previous risk-reduction attempts	0	1	2	
Assessed, summarised, and reflected back patient's motivators and concerns around behaviour change	0	1	2	
Counselling for Risk-Reduction and Behaviour Change				
Gathered adequate information to assess initial stage of change for condom use and partner discussions about HIV/STI: <input type="checkbox"/> precontemplation <input type="checkbox"/> contemplation <input type="checkbox"/> ready for action/preparation <input type="checkbox"/> action <input type="checkbox"/> maintenance	0	1	2	
Precontemplation counselling strategies: <input type="checkbox"/> inquired about pros and cons of behaviour <input type="checkbox"/> discussed impact of behaviour <input type="checkbox"/> used empathic and summary reflections <input type="checkbox"/> asked if patient wanted information about health risks associated with target behaviour <input type="checkbox"/> storytelling	0	1	2	
Contemplation counselling strategies: <input type="checkbox"/> explored cons for behaviour change using reflection and summarisation <input type="checkbox"/> explored pros for behaviour change using reflection and summarization <input type="checkbox"/> demonstrated empathy and respect for patient's beliefs and feelings	0	1	2	

Ready for action/Preparation counselling strategies: <input type="checkbox"/> asked patient to brainstorm specific steps, and <input type="checkbox"/> skills required for carrying out a behaviour-change plan <input type="checkbox"/> helped patient create realistic plan based on resources, time, and support <input type="checkbox"/> rehearsed behaviour <input type="checkbox"/> predicted barriers <input type="checkbox"/> assessed confidence	0	1	2			
Action counselling strategies: <input type="checkbox"/> discussed initial experience with behaviour-change plan <input type="checkbox"/> celebrated successes <input type="checkbox"/> refined skills (role-plays or practice) <input type="checkbox"/> explored potential triggers for relapse <input type="checkbox"/> assessed confidence	0	1	2			
Maintenance counselling strategies: <input type="checkbox"/> assessed patient experiences <input type="checkbox"/> celebrated successes <input type="checkbox"/> explored triggers for relapse <input type="checkbox"/> assessed confidence	0	1	2			
Reaching Common Ground - STI Treatment, Partner Management, and Risk-Reduction Planning						
Reached agreement with patient on specific steps to distribute and discuss contact slip(s) with sexual partner(s)	0	1	2			
Agreed upon risk-reduction plan matching patient's readiness for change	0	1	2			
Reinforced skills to carry out: <input type="checkbox"/> partner management plan, using <input type="checkbox"/> role-play <input type="checkbox"/> problem-solving <input type="checkbox"/> risk-reduction plan, using <input type="checkbox"/> role-play <input type="checkbox"/> problem-solving	0	1	2			

*** Expert Communication Skills**

- Maintained good eye contact
- Used active listening – non-verbal cues
- Had warm accepting body language
- Mainly used open-ended questions
- Avoided interrupting
- Used summaries and reflections

 **Notes**

Session 7:

Integrating routine HIV testing into the primary-care visit

Length: 25 minutes
STI Reference Manual: Chapter 4

7.1 Session Overview

Aim

The aim of this session is to explain the importance of integrating routine HIV testing into primary-care visits.

Session Learning Objectives

- Be able to bring up routine HIV testing as part of a comprehensive STI patient care
- Understand the difference between routine HIV testing and compulsory testing

Key Points

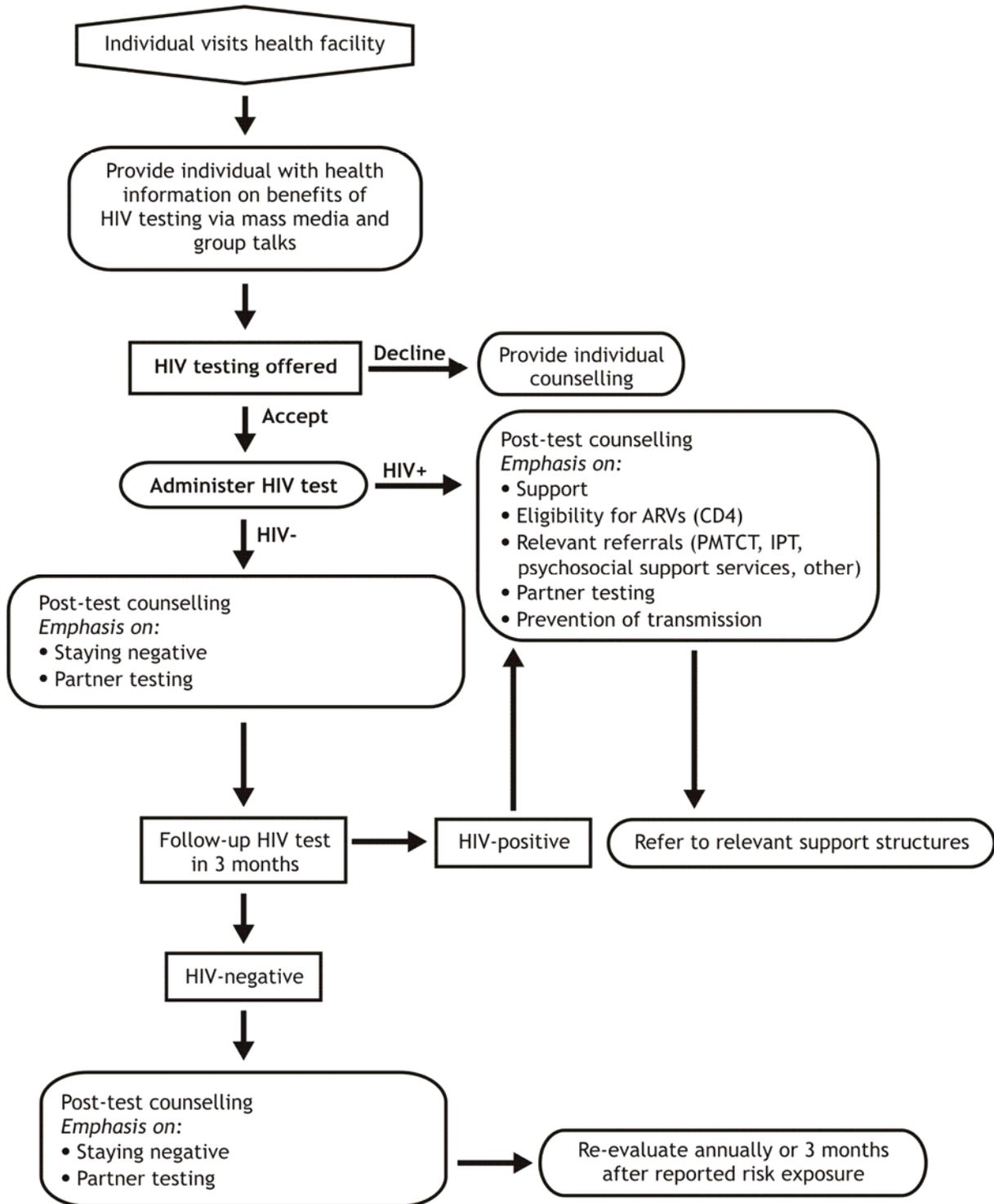
- Routine testing does not require specific consent, but allows individuals to decline testing (opt out)
- Routine testing results in higher rates of patients being tested and informed of results
- Rapid testing makes it possible to integrate an HIV test into a health-care visit

7.2 Routine HIV Testing

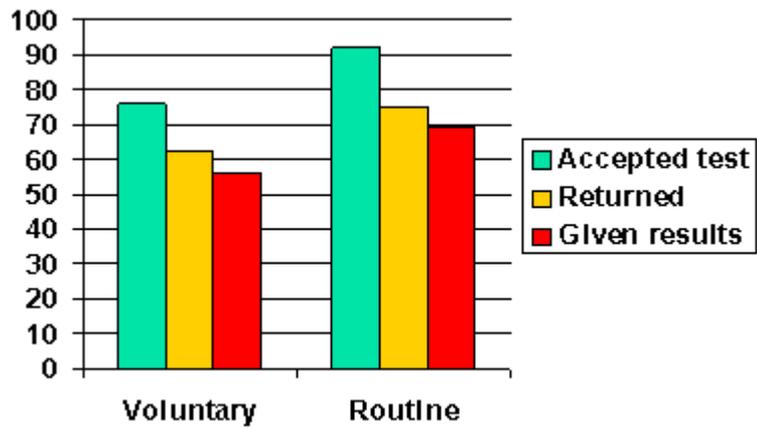
Routine HIV Testing

- Differs from compulsory or mandatory testing in that it allows individuals to opt out of testing
- Not necessary to get specific consent: If an individual does not specifically decline the test, they will be tested as a regular part of their care
- STI patients are designated as one of the priority groups for routine HIV testing in Botswana

Routine HIV Testing Flowchart



HIV Testing in Four Antenatal Clinics in Francistown



Opt-in vs. opt-out testing strategies – Francistown, Botswana 2003-2004

Why Offer Rapid Testing?

- More people accept testing
- More people receive test results
- It costs less per test result received, since many people don't return for results with standard testing
- It can be integrated into a clinic visit and require only an extra few minutes to perform
- It is as accurate as ELISA / Western blot

 **Notes**

Session 8:
HIV post-test counselling

Length: 30 minutes
STI Reference Manual: Chapter 5

8.1 Session Overview

Aim

The aim of this session is to increase providers' skills for HIV post-test counselling within primary-care settings.

Learning Objectives

- Identify techniques for providing positive and negative HIV test results in a sensitive and appropriate manner within a primary-care visit
- Demonstrate techniques for leading discussions on risk-reduction, disclosure, and partner management in the context of post-test counselling, especially for HIV-positive patients
- Explain how to properly end a patient visit

Key Points

- The two main objectives of the post-test counselling session are support and prevention of HIV transmission
- The first priority for the post-test counselling session is for the patient to correctly understand the test result
- Applying patient-centred counselling strategies can help build rapport with your patient and make it easier to work through emotionally difficult situations.
- Providing both HIV-positive and HIV-negative patients with appropriate counselling is an important step in the prevention of future infections
- Even when time is limited, the care provider is obligated to provide adequate and effective counselling and referral, especially for HIV-positive patients
- Patients should be referred to services that are responsive to their primary needs and appropriate to their culture, language, sex, sexual orientation, age, and developmental level

Session Activities

- Viewing of Video Segment
- Role-play

The following pages contain worksheets that will be used during the activities listed above. Your instructor will guide you in the proper use of these worksheets.

8.2 Basic Principles

Post-Test Counselling Objectives

- Patient support
- Prevention of HIV transmission
- Access to early treatment

Important Components of Post-Test Counselling

- Provide the initial test result in simple terms that the patient will understand
- Review the steps that the patient can take depending on whether the result is positive or negative
- Keep in mind the basic principles of good counselling practice (rapport building, respect, non-judgmental attitude)

8.3 Counselling Steps for Negative and Positive Results

Counselling Steps: Negative Result

- Ask if the patient is ready to find out his or her results
- Provide test results clearly and simply
- Re-evaluate risk-reduction plan in context of results
- Identify supports for risk-reduction plan
- Negotiate disclosure and partner referral

Counselling Steps: Positive Result

- Ask if the patient is ready to find out his or her results
- Provide test result clearly and simply
- Identify sources of support
- Discuss risk-reduction plan in context of positive results
- Negotiate disclosure and partner referral
- Make appropriate plans for follow-up and referral

Positive Result: Framing Prevention Messages

Frame prevention messages in a positive way:

- “Safer sex is one of the things you can do to keep yourself healthy”
- “Safer sex also helps keep other people free of HIV infection”
- “If you and your partner use a condom while having sex:
 - You are more likely to stay free of STIs
 - You make it easier for your doctor to care for you”

8.4 Referrals and Closure

Common Referrals

- Medical evaluation, care, and treatment
- Reproductive health services
- Mental health services
- Support Groups
- Other (i.e., social welfare services)

Closure of Patient Visit

- Summarise diagnosis and treatment plans
- Summarise agreed upon behaviour change plans
- Summarise follow-up plans
- Elicit questions
- End with a warm and supportive statement



Group Activity: Watch Video Trigger 5 and use Worksheet 8.1 to take notes



Group Activity: HIV Post-Test Counselling Video Discussion

- Does the nurse clearly explain the test results?
- Does the nurse address all of the patient's main concerns?
- Does the nurse take steps to guide the patient towards proper management of his condition?
- How could the nurse have done a better job/what would you have done differently?

8.6 Review: STI Patient Visit Protocol

1. Begin the visit
2. Gather information and assess risk behaviours
3. Offer HIV testing
4. Perform physical exam
5. Share information – STI Diagnosis
6. Determine stage of change
7. Counsel for risk-reduction and behaviour change
8. Reach common ground – STI treatment, partner management, risk-reduction planning
9. Provide HIV test result and post-test counselling
10. Provide closure – ensure appropriate follow-up



Group Activity: Conduct Role Play and use Worksheets 8.2 and 8.3 to take notes



Group Activity: HIV Post-Test Counselling Role-Play Debrief

- Did the provider present test results simply and clearly and discuss the meaning of results with the patient?
- Did the provider adequately assess the patient's readiness to learn the test result and ability to cope with the result, if positive?
- Did the provider communicate results in a calm, respectful, and compassionate manner?

Worksheet 8.1

Viewing of Video Segment: HIV Post-Test Counselling

- Objective:** Observe the steps involved in an effective post-test counselling session.
- Description:** A nurse counsels Peter, a 35-year-old man, after his HIV test result comes back positive.
- Instructions:** While you watch the video, pay close attention to how the nurse is interacting with her patient and the different techniques she employs to discuss sensitive issues. Reflect on what you know about post-test counselling and, in the space provided below, write down the ways in which she does or does not follow what you believe to be the correct protocol.
- Questions:** Specific questions to keep in mind while you are watching the video include:
- Does the nurse clearly explain the test results?
 - Does the nurse address all of the patient's main concerns?
 - Does the nurse take steps to guide the patient towards proper management of his condition?
 - How could the nurse have done a better job/what would you have done differently?

Observations:

Worksheet 8.2

Role-play: HIV Post-Test Counselling

- Objective:** Be able to employ the counselling strategies outlined during this session to have an effective discussion with a patient who has tested positive for HIV.
- Scenario:** A young woman, Lekwalo, who came to the clinic complaining of vaginal discharge, has tested positive for HIV. She becomes very upset when she hears the result but does not clearly understand what it means. The health-care provider tries to console her and counsel her about what steps she can take to manage her infection and cope emotionally.
- Instructions:**
- You have 5 minutes for the role-play and 5 minutes for debriefing.
 - Divide into groups of 3 consisting of the patient, a provider, and an observer.
 - Remember that the focus of this activity is on giving the HIV test result and providing post-test counselling.
 - You do not need to cover management of Lekwalo's vaginal discharge during this role-play.
 - The observer can use Worksheet 8.3 in noting strengths and weaknesses in the health-care provider's approach.
 - During your 5-minute debriefing, allow the health-care provider to comment first on what was effective and what could have been more effective. Then the patient and observer can offer comments.
 - If there is time, you will also have an opportunity for a brief discussion with other groups, to share your thoughts about the role-play.

- Characters:**
- Lekwalo**
You are an 18-year-old woman who has come in because you are concerned about what you think may be an STI. You agree to have a routine HIV test and expect it to be negative, since your test 2 years ago came back negative and you have been with the same partner ever since. Now that you are being told you are infected with HIV, you feel like there is nothing you can do and you very shocked and upset. The only person you have had sex with is your steady boyfriend but you think he may have other casual partners. Up to now, your boyfriend has not been tested for HIV – you have wanted to ask him but were too afraid of how he would react. You are afraid to tell your boyfriend about your result because you think he may leave you and you are worried that your family will blame you for becoming infected. You know that HIV is not curable and it can kill you, but you do not understand how the disease affects people or what can be done to treat it.
- Health-Care Provider**
You want to give Lekwalo time to absorb the meaning of her result. You also want to encourage her to seek the proper treatment, to take steps for “positive living,” and to prevent passing HIV to others. Remember to:
- Explain in simple language what a positive test result means
 - Explore your patient's feelings about the result and make her feel that you are there to support her
 - Encourage her to discuss the result with trusted friends and/or family and discuss the concept of “positive living”
- Observer**
Closely watch the interaction between the patient and provider, looking for use of appropriate counselling strategies. After the role-play, comment on the effectiveness of the health-care provider's approach and make suggestions for improvement based on your observations.

Worksheet 8.3

Observation Checklist: Patient-Centred STI Screening and Syndromic Management

Scoring Guide:

0= not observed
1= observed with beginning learner communication skills or partially completed tasks
2= observed with expert patient-centred communication skills* and completed all tasks

Providing HIV Test Result and Post-Test Counselling				
Provided test results simply and clearly, discussed meaning of results	0	1	2	
Assessed patient's readiness to learn result and perceived ability to cope with result, if positive	0	1	2	
Provided results in calm, respectful, compassionate manner	0	1	2	
HIV negative result: <input type="checkbox"/> emphasis on skills and plans to stay negative <input type="checkbox"/> reviewed risk-reduction plans in context of results <input type="checkbox"/> discussed partner testing	0	1	2	
HIV positive result: <input type="checkbox"/> identified support needed <input type="checkbox"/> discussed testing needed for ARVs <input type="checkbox"/> discussed partner testing <input type="checkbox"/> reviewed risk-reduction plans in context of results <input type="checkbox"/> discussed preventing infection to partner(s) <input type="checkbox"/> discussed follow-up recommended	0	1	2	

*** Expert Communication Skills**

- Maintained good eye contact
- Used active listening – non-verbal cues
- Had warm, accepting body language
- Mainly used open-ended questions
- Avoided interrupting
- Used summaries and reflections

 **Notes**

Appendix A: STI Syndrome Summary Table

STI Syndrome Summary Table

STI Syndrome	Possible Signs and Symptoms	Associated Disease	Possible Etiologic Agent(s)
Urethral Discharge Syndrome	<ul style="list-style-type: none"> • Urethral itching • Urethral discharge • Difficult/painful/frequent urination 	Gonorrhoea Chlamydia	<i>N. gonorrhoeae</i> <i>C. trachomatis</i>
Genital Ulcer Disease (GUD)	<ul style="list-style-type: none"> • Vesicular or non-vesicular lesions • History of recurrent lesions/ulcers • Genital itching/pain • Enlarged inguinal lymph nodes 	Syphilis Chancroid Genital herpes Lymphogranuloma venereum (LGV) Granuloma inguinale	<i>T. pallidum</i> <i>H. ducreyi</i> HSV2 <i>C. trachomatis</i> <i>C. granulomatis</i>
Vaginal Discharge Syndrome	<ul style="list-style-type: none"> • Unusual vaginal discharge and/or odour • Vaginal itching • Difficult/painful urination • Pain during sexual intercourse 	<i>Vaginitis:</i> Trichomoniasis Candidiasis Bacterial vaginosis (BV) <i>Cervicitis:</i> Gonorrhoea Chlamydia	<i>T. vaginalis</i> <i>C. albicans</i> see text <i>N. gonorrhoeae</i> <i>C. trachomatis</i>
Lower Abdominal Pain in women	<ul style="list-style-type: none"> • Abnormal vaginal discharge • Spotting between periods • Uterine tenderness on pelvic exam • History of lower abdominal pain • Painful menstruation • Pain during sexual intercourse • Cervical motion tenderness • Difficult/painful urination (dysuria) • Sometimes nausea, fever, or vomiting 	Gonorrhoea Chlamydia Anaerobic/aerobic bacterial infection	<i>N. gonorrhoeae</i> <i>C. trachomatis</i> See text
Inguinal bubo	<ul style="list-style-type: none"> • Painful inguinal swelling • Pain/tenderness during palpation 	Chancroid Lymphogranuloma venereum	<i>H. ducreyi</i> <i>C. trachomatis</i>
Acute Scrotal Swelling (Epididymitis)	<ul style="list-style-type: none"> • Tenderness, swelling, and/or increased warmth of scrotum • Urethral discharge 	Gonorrhoea Chlamydia Viral infection Pyogenic bacterial infection	<i>N. gonorrhoeae</i> <i>C. trachomatis</i> See text See text
Neonatal Conjunctivitis	<i>In Newborns</i> <ul style="list-style-type: none"> • Purulent eye discharge • Swelling of face/eyelids 	Gonorrhoea Chlamydia Pyogenic bacterial infection	<i>N. gonorrhoeae</i> <i>C. trachomatis</i> See text
Generalised Lymphadenopathy	<ul style="list-style-type: none"> • Swollen glands 	Syphilis HIV infection	<i>T. pallidum</i> HIV

Appendix B: Case Studies

Worksheets:

- B.1: HSV
- B.2: Syphilis
- B.3: Vaginal Discharge and Lower Abdominal Pain
- B.4: Bubo
- B.5: Warts
- B.6: Acute Scrotal Swelling
- B.7: Neonatal Conjunctivitis
- B.8: Balanitis
- B.9: Genital Ulcer Disease
- B.10 Urethral Discharge
- B.11 STI and Pregnancy
- B.12 Miscellaneous Case Study Questions

Case Study 1: HSV

Instructions: This case study is a practical companion to the Genital Ulcer Disease (GUD) section of **Session 5: Diagnosis and management of STI-related syndromes**. Read the case description below. Use the GUD flowchart in this handbook or the *Clinical Guide* to answer the questions. For multiple-choice questions, circle the correct answers. For other questions, write the answer in the space provided. Be prepared to discuss the case during training.

Case Study 1: HSV

Description of Case 1: A 32-year-old woman presents with a crop of small painful superficial unilateral skin ulcers on the external genitalia. She states that the ulcers were vesicles at the beginning. There is no history of a similar disease and she denies any systemic symptoms.

On physical examination, the patient is afebrile and there is no systemic or localised lymphadenopathy or neuropathy. There is no mucosal involvement.

- Questions:**
1. What is your diagnosis? Why?
 - a. Non-Primary Initial HSV Infection
 - b. First symptomatic chronic HSV infection
 - c. Primary HSV infection
 - d. First or second
 2. What is the most likely cause of her genital herpes infection?
 - a. HSV1
 - b. HSV2
 - c. Either HSV1 or HSV2
 3. A patient with **recurrent** oral herpes most likely has:
 - a. Only HSV1
 - b. Only HSV2
 - c. Either HSV1 or HSV2
 4. A woman has type-specific antibody to HSV-1.
 - How has she acquired the infection?

 5. A woman has type-specific antibody to HSV-2.
 - How has she acquired the infection?

Case Studies 2 – 4: Syphilis

Instructions: This case study is a practical companion to the Genital Ulcer Disease (GUD) section of **Session 5: Diagnosis and management of STI-related syndromes**. Read the case description below. Use the GUD flowchart (Session 5.2) and RPR/VDRL flowchart (Appendix C) in this handbook or in the *Clinical Guide* to answer the questions. To answer questions, write the answer in the space provided. Be prepared to discuss the case during training.

Case Study 2: Syphilis

Description of Case 2: A pregnant woman has positive RPR.

- Questions:**
1. What questions would you like to ask this patient?
 2. What does RPR stand for?
 3. What is the difference between RPR and VDRL?

Case 2 Cont'd: You learn that she has never been treated for syphilis in the past, and there is no other RPR test result available. In your history and PE, there are no signs and symptoms suggestive of syphilis.

- Questions:**
4. What are your plans for this patient?

Case 2 Cont'd: In a follow-up 3 months later, you find the patient's RPR titre has increased.

- Questions:**
5. What is your plan now?

Case Study 3: Syphilis

Description of Case 3 A 55-year-old man has a positive RPR and no signs or symptoms suggestive of active syphilis. He had been tested and treated 6 months ago for syphilis. RPR was positive with titre of 1/8. Now RPR is 1/2.

Questions: 1. What is your plan for this patient?

Case Study 4: Syphilis

Description of Case 4 Syphilis in pregnancy is associated with:

- Congenital syphilis
- Spontaneous abortion
- Stillbirth

Questions: 1. What is the appropriate treatment for syphilis during pregnancy if the mother is allergic to penicillin?

Case Studies 5 – 11: Vaginal Discharge and/or Lower Abdominal Pain Syndrome

Instructions: These case studies are a practical companion to the Vaginal Discharge Syndrome section of **Session 5: Diagnosis and management of STI related syndromes**. Read the case description below. Use the flowcharts in this handbook or the *Clinical Guide* to answer the questions. Write the answers to questions in the space provided. Be prepared to discuss the case during training.

Case Study 5: Vaginal Discharge and/or Lower Abdominal Pain Syndrome

Description of Case 5: A 25-year-old woman comes to you for evaluation of lower abdominal pain of 2 days duration. She denies vaginal discharge, yellow discharge, or fever. She has no history of missed or overdue periods, recent delivery or abortion, or abnormal vaginal bleeding.

On physical examination her temperature is 37 C. There is no abdominal mass, abdominal tenderness, or rebound tenderness. There is no cervical mucopus or vaginal discharge. There is no cervical motion tenderness. There is no vulval erythema, excoriation, or curd-like discharge. There is no evidence of any other STI.

- Questions:**
1. What is the syndromic diagnosis?
 2. What would you do?

Case Study 6: Vaginal Discharge and/or Lower Abdominal Pain Syndrome

Description of Case 6: An 18-year-old woman, recently married, comes to you for evaluation of lower abdominal pain of 2 days duration. She denies vaginal discharge, yellow discharge, or fever. She has no history of missed or overdue periods, recent delivery or abortion, or abnormal vaginal bleeding.

On physical examination her temperature is 37 C. There is no abdominal mass, abdominal tenderness, or rebound tenderness. There is no cervical mucopus or vaginal discharge. There is no cervical motion tenderness. There is no vulval erythema, excoriation, or curd-like discharge. There is no evidence of any other STI.

- Questions:**
1. What is the syndromic diagnosis?
 2. What would you do?

Case 6 Cont'd:	Another 18-year-old woman presents with LAP of 3 days duration.
Questions:	<p>3. What else do you want to know?</p> <p>4. What is meant by Risk-Factor Assessment in the setting of vaginal discharge/LAP?</p>
Case 6 Cont'd:	The patient thinks she is pregnant. She has married recently. She has missed her period. She denies fever or vaginal discharge. Her abdomen is tender, and there is guarding.
Questions:	5. What should you do?
Case Study 7: Vaginal Discharge and/or Lower Abdominal Pain Syndrome	
Description of Case 7:	<p>A 25-year-old woman presents to you for evaluation of her LAP of 2 days duration. She is not complaining of fever or abnormal discharge. There is no history of missed or overdue periods, recent delivery or abortion, or abnormal vaginal bleeding.</p> <p>On physical examination, temperature is 37 C. There is lower abdominal tenderness and guarding. Pelvic examination shows no vaginal ulcer or discharge. There is no evidence of VVC. Speculum examination reveals no cervical mucopus or erosion, but during pelvic examination she is very uncomfortable. There is cervical motion tenderness.</p>
Questions:	<p>1. What are your thoughts? (Consult the Vaginal Discharge and/or Lower Abdominal Pain Flowchart.)</p> <p>2. What are your recommendations?</p>

Case Study 9: Vaginal Discharge and/or Lower Abdominal Pain Syndrome**Description of Case 9:**

A 24-year-old sexually active woman is complaining of non-yellowish vaginal discharge of a few days duration. There is no abdominal pain. On physical examination, there is no fever. There is no abdominal tenderness. There is no adenopathy. On pelvic examination, there is no ulcer. There is no vaginal discharge. Cervix looks normal. There is vulval erythema and excoriations.

Questions:

1. What is your syndromic diagnosis and approach?

Case Study 10: Vaginal Discharge and/or Lower Abdominal Pain Syndrome**Description of Case 10:**

A 19-year-old sexually active woman is complaining of non-yellowish vaginal discharge of a few days duration. There is no abdominal pain. On physical examination, there is no fever. There is no abdominal tenderness. There is no adenopathy. On pelvic examination, there is no ulcer. There is no vaginal discharge. Cervix looks normal. There is vulval erythema and excoriations.

Questions:

1. What is your syndromic diagnosis and approach?

Case Study 11: Vaginal Discharge and/or Lower Abdominal Pain Syndrome**Description of Case 11:**

A 12-year-old girl is brought to you by her mother with a chief complaint of vaginal discharge, vulvovaginal discomfort, and pruritis. She is not sexually active, and her mother is very concerned regarding her complaints.

Questions:

1. What are your thoughts and what are you going to do?

2. What questions would you like to ask?

<p>Case 11 Cont'd:</p>	<p>Health History</p> <ul style="list-style-type: none"> You ask her mother to step out. You make the girl comfortable and ask about her school and education first. Then you gradually ask her if she is sexually active or if anyone has abused her. The patient insists that she is not sexually active. She says that she acquired the illness from sitting too long and too frequently in the bathtub. She denies fever and abdominal pain. <p>Physical Examination</p> <ul style="list-style-type: none"> On physical examination, the abdomen is soft. There is bilateral tender inguinal adenopathy. The vulvovagina is swollen and inflamed. It is covered with curd-like, whiteish discharge. There are many superficial and painful ulcers on the labia minor. There are a few blisters on labia major. <p>On speculum examination, there are several erosions on the cervix. There is copious yellowish endocervical discharge. There are several superficial ulcers on the vaginal wall bilaterally. There is vaginal thrush. There is no cervical motion tenderness.</p>
<p>Questions:</p>	<p>3. What are your thoughts? What is the syndromic diagnosis?</p> <p>4. What are the possible etiological agents?</p> <p>5. Consult the appropriate flowcharts and come up with a treatment plan.</p>
<p>Case 11 Cont'd:</p>	<p>Remarks: Cervical mucus production and humoral immunity are absent until ovulation begins. The risk of complications of STI is higher in immature adolescents exposed to infection as compared to physically mature women. In addition, susceptibility to STI and ascending infection and subsequent PID are more frequent in sexually active prepubescent adolescents.</p>
<p>Questions:</p>	<p>6. What are the major issues?</p> <p>7. How do you handle the situation? How do you deal with her partner or partners? What do you say to her mother?</p>

Case Study 12: Bubo

Instructions: This case study is a practical companion to **Session 5: Diagnosis and management of STI-related syndromes**. Read the case description below. Use the flowcharts in this handbook or in the *Clinical Guide* to answer the questions. Fill in the answers to questions in the space provided. Be prepared to discuss the case during training.

Case Study 12: Bubo

Description of Case 12: A young man has a tender mass in his groin, with history of fever and weight loss of several weeks duration. He is a truck driver and has multiple sexual partners.

On physical examination, there is a very tender, matted, non-fluctuant group of lymph nodes in the right groin and the skin over the mass is tender and inflamed, and not moving over the mass.

- Questions:**
1. What is your syndromic diagnosis?
 2. What are the etiological possibilities?
 3. Before you proceed, what else would you like to know?

Case 12 Cont'd: He is febrile, has thrush, poor dentition, no systemic adenopathy, no genital ulcer, no urethral discharge. No testicular mass. No foot or thigh infection.

- Questions:**
4. What are your thoughts about this case?
 5. What is the syndromic diagnosis?
 6. Do you want to order any specific test(s)? Which one(s)?
 7. What is your therapeutic plan?

**Case 12
Cont'd:**

You think he has bubo without genital ulcer and treat him for LGV according to the algorithm.

You also ask him for HIV testing. HIV testing is a routine procedure. In this particular case, you suspect immunodeficiency (AIDS).

Questions:

8. What are the clinical findings in this case that are suggestive of AIDS?

9. Give 4 reasons why someone may have thrush but not have AIDS.

10. Give 4 reasons why someone may have lost weight and not have AIDS.

**Case 12
Cont'd:**

The patient calls you in 5 days and reports that his pain is intolerable and he has not improved.

You see him in your consulting room. He has been adherent and has had no sexual encounters since his last visit.

The mass is bigger and it is fluctuant again.

Questions:

11. What is your plan?

**Case 12
Cont'd:**

After 3 weeks of treatment and repeated aspiration, he is getting worse. He has closely adhered to your recommendations.

Questions:

12. What are your thoughts and plans for this patient now?

Case 12
Cont'd:

His HIV test result is sent to your consulting room and he is HIV-positive.

Questions:

13. Was there any evidence in the patient's history or PE suggestive of immunodeficiency?

14. What are your thoughts and plans for this patient?

Follow-Up:

In hospital, a biopsy of one of the lymph nodes showed tuberculosis. A chest X-ray also showed pulmonary infiltrate consistent with TB.

Case Studies 13-15: Warts

Instructions: This case study is a practical companion to the Genital Warts section of **Session 5: Diagnosis and management of STI-related syndromes**. Read the case description below. Use the flowcharts in this handbook or in the *Clinical Guide* to answer the questions. Fill in the answers to questions in the space provided. Be prepared to discuss the case during training.

Case Study 13: Warts

Description of Case 13: A 3-year-old girl has genital warts.

- Questions:**
1. Do you think she has been sexually abused?
 - Why?
 - What are the other explanations?
 - What is her chance developing squamous cell carcinoma?
 - What is your plan?

Case Study 14: Warts

Description of Case 14: A young woman, a patient of yours, with a previously completely treatment of anogenital warts, is in your consulting room with a mild overgrowth on her vulva suggestive of warts.

- Questions:**
1. How do you explain the situation?

Case Study 15: Warts

Description of Case 15: A 20-year-old woman who has a new boyfriend comes to you with new cervical lesions suggestive of warts. She denies any previous experience with warts and thinks she has acquired the disease from her new boyfriend.

- Questions:**
1. What would be your explanation?

Warts: Additional Questions

Additional Questions:

Question Set 1

- Is there any situation in which anogenital warts caused by strains 6 or 11 may lead to squamous cell carcinoma?
- What are the most common HPV strains in cutaneous warts?
- What is Buschke Loewenstein tumour?
- What do LSIL and HSIL mean?
- Which of the following solutions is very toxic?
 - Podophyllin in 15 to 20% tincture of benzoin
 - Podophyllotoxin

Question Set 2

The safety of which of the following therapies has **not** been established during pregnancy?

- Cryotherapy
- Surgery
- 90% trichloroacetic acid
- Podophyllotoxin
- Imiquimod

Remarks: Genital warts can enlarge considerably or may appear for the first time during pregnancy. Spontaneous regression after delivery is known to occur. This happens because pregnant women are immunosuppressed even in the absence of HIV infection.

Case Studies 16 and 17: Acute Scrotal Swelling

Instructions: This case study is a practical companion to the Acute Scrotal Swelling section of **Session 5: Diagnosis and management of STI-related syndromes**. Read the case description below. Use the flowcharts in this handbook or in the *Clinical Guide* to answer the questions. Fill in the answers to questions in the space provided. Be prepared to discuss the case during training.

Case Study 16: Acute Scrotal Swelling

Description of Case 16: A 22-year-old man with many previous episodes of STI is in your consulting room with a chief complaint of sudden onset of right-sided scrotal tenderness of one-hour duration.

- Questions:**
1. What is your syndromic diagnosis?

 2. Refer to the flowchart - what questions would you like to ask?

Case 16 Cont'd: He denies urethral discharge, fever, dysuria, or genital ulcer. His last sexual activity was with a new partner several weeks ago and he did not use a condom and did not let his partner use a condom. His partner looked healthy and did not have any obvious discharge or genital lesion.

- Questions:**
3. What does "His partner looked healthy" mean?

Case 16 Cont'd: On physical examination he is in severe pain; he is afebrile. There is no inguinal adenopathy. There is no genital ulcer, no urethral discharge even with penile milking. The right scrotum is mildly swollen, not red, no bruises, no sign of trauma or injury.

- Questions:**
4. Based on the information presented to you, do you have any other questions?

Case 16
Cont'd:

There is no history of trauma, no history of inguinal hernia.

Questions:

5. On your physical examination of the genitalia, is there any particular area that you would like to focus on?

6. How do you check for testicular torsion?

Case 16
Cont'd:

On further PE you see that the right testis is elevated and extremely tender.

Questions:

7. What are your thoughts and plans for this patient now?

8. What part of the patient's history is inconsistent with STI?

9. Which parts of the clinical findings are worrisome?

Case Study 17: Acute Scrotal Swelling

Description
of Case 17:

A 44-year-old man with history of renal stone and multiple STIs comes to visit you for fever, and progressive painful swelling of scrotum of 4 days duration. In addition, he is complaining of right flank pain and dysuria. He has sexual encounters 2 to 3 times a week with his wife, who is healthy.

On PE, you find him in pain and febrile. He looks very toxic. There is no urethral discharge, no inguinal adenopathy, and no genital ulcer.

The entire scrotal tissue is red and swollen, very tender to the touch, and you even feel some fluctuation.

Questions:

1. What are your thoughts and what are you going to do?

Case Studies 18 and 19: Neonatal Conjunctivitis

Instructions: This case study is a practical companion to the Neonatal Conjunctivitis section of **Session 5: Diagnosis and management of STI-related syndromes**. Read the case description below. Use the flowcharts in this handbook and in the Clinical Guide to answer the questions. Write the answers to questions in the space provided. Use lines to connect the answers in the matching columns. Be prepared to discuss the case during training.

Case Study 18: Neonatal Conjunctivitis

Description of Case 18: A 5-day-old newborn has nonpurulent and mild conjunctivitis, despite receiving tetracycline ointment at birth.

- Questions:**
- Match the conditions with their onset times below:
 - Chemical conjunctivitis
 - Gonococcal conjunctivitis
 - Chlamydial conjunctivitis
 - Herpetic conjunctivitis
 - 5 to 14 days after birth*
 - First day of birth*
 - 3 to 5 days after birth*
 - Within the first 2 weeks after birth*
 - When do you suspect HSV conjunctivitis or Keratitis in a newborn?
 - Neonatal conjunctivitis is a serious eyesight-threatening situation with very specific clinical features including dilatation of conjunctival blood vessels (chemosis), excessive secretion, severe edema, and a destructive course. Why is this disease more severe in neonates than older children?

Case Study 19: Neonatal Conjunctivitis

**Description
of Case 19:**

A newborn female has conjunctivitis 10 days after birth. Her mother is healthy and is not complaining of any anogenital lesions or discomfort. The newborn has fever and a few blisters on the face, around the conjunctiva. She looks a little drowsy and yellow. The corneas show opacification.

Questions:

1. What are your thoughts and plans for this patient?

Case Studies 20 & 21: Balanitis

Instructions: This case study is a practical companion to **Session 5: Diagnosis and management of STI-related syndromes**. Read the case description below. Use the flowcharts in this handbook and in the *Clinical Guide* to answer the questions. Write the answers to questions in the space provided. Be prepared to discuss the case during training.

Case Study 20: **Balanitis**

Description of Case 20: A 25-year-old man complains of itching and discharge from the glans of the penis for 3 days. No history of dysuria. He is not circumcised. On PE he is afebrile and there is no finding except foreskin and glans on retraction have erythema and excoriations. On penile milking there is no discharge.

Questions: 1. What is your diagnosis and plans for this patient?

Case 20 Cont'd: After taking medication, he reports that he has not improved, and your examination confirms this.

Questions: 2. What are your plans for this patient now?

3. How do you treat his partner(s)?

Case Study 21: **Balanitis**

Description of Case 21: A 20-year-old man is complaining of itching and discharge on glans penis of a few days duration. There is no other complaint. PE is unremarkable except the tip of glans is red, but you cannot retract the foreskin to complete your examination.

Questions: 1. What are your thoughts and plans?

Case 21
Cont'd:

At a follow-up visit, he has not improved. He has adhered to the therapeutic regimen and has not been sexually active.

Questions:

2. What are your thoughts and plans for this patient now?

Case 21
Cont'd:

A week later he is in your consultation room for follow-up. He has improved considerably, but you have his HIV test results back. Unfortunately, it is positive. A confirmatory test is not a requirement.

Questions:

3. What are your plans now?

Case Study 23: Genital Ulcer Disease

Description of Case 23:

A 19-year-old male comes to you complaining of painful sores on the penis. It started 2 days ago. First there was itching, followed by rash around the penile shaft. He tested HIV-negative last month.

Physical examination

The patient's head, chest, and abdomen are unremarkable. On his genitalia, you find small crops of vesicles around the penile shaft and glans penis. You observe no open ulcers. The glans penis is retractable. The anal area is unremarkable.

Questions:

1. What is the syndromic diagnosis?

2. How are you going to manage the patient?

3. How are you going to manage the partner?

Case Study 24: Urethral Discharge

Instructions: This case study is a practical companion to **Session 5: Diagnosis and management of STI-related syndromes**. Read the case description below. Use the flowcharts in this handbook and in the *Clinical Guide* to answer the questions. Write the answers to questions in the space provided. Be prepared to discuss the case during training.

Case Study 24: Urethral Discharge

Description of Case 24: A 24-year-old man comes to you complaining of a mildly bothersome “drip” from the tip of his penis that began about 3 days ago. He says it’s also “a bit itchy” when he urinates. On physical examination, you see no discharge on milking of the urethra.

Questions:

1. How would you treat his condition using the syndromic management flowchart?

**Case 25
Cont'd:**

- Ciprofloxacin and tetracyclines are absolutely contraindicated during all stages of pregnancy.
- Metronidazole may be used at any time during pregnancy, but many pregnant women do not tolerate the usual dose. The dose has to be reduced to the minimum and given 3 times daily.

Questions:

4. How do you treat vaginal trichomoniasis during pregnancy?

5. Which of the following therapies has not been established as safe during pregnancy?
 - Cryotherapy
 - Surgery
 - 90% trichloroacetic acid
 - Podophyllotoxin
 - Imiquimod

**Case 25
Cont'd:**

Genital Warts

Genital warts can enlarge considerably or may appear for the first time during pregnancy. Spontaneous regression after delivery is known to occur. This happens because pregnant women are immunosuppressed even in the absence of HIV infection.

Case Study 26: Miscellaneous Questions

Instructions: This case study is a practical companion to **Session 5: Diagnosis and management of STI-related syndromes**. Read the case description below. Use the flowcharts in this handbook and in the *Clinical Guide* to answer the questions. Write the answers to questions in the space provided. Be prepared to discuss the case during training.

Case Study 26: Miscellaneous Questions

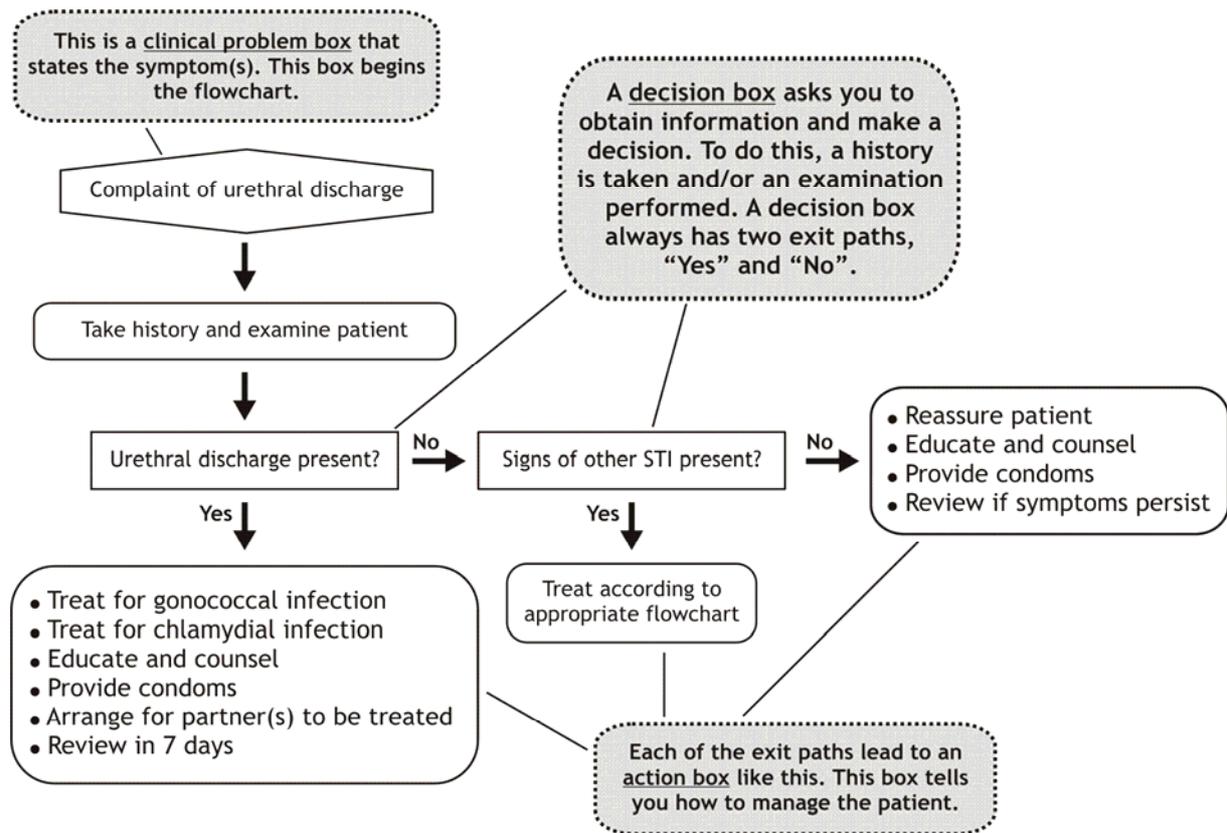
- Questions:**
1. Name at least one disease for each of the following organisms.
 - Mycoplasma hominis
 - Mycoplasma genitalium

 2. In sexually mature women, GC and Chlamydia are not etiological agents of vaginitis, but in pre-pubertal girls they may be. What is the biological explanation for this difference?

Appendix C: Additional Flowcharts

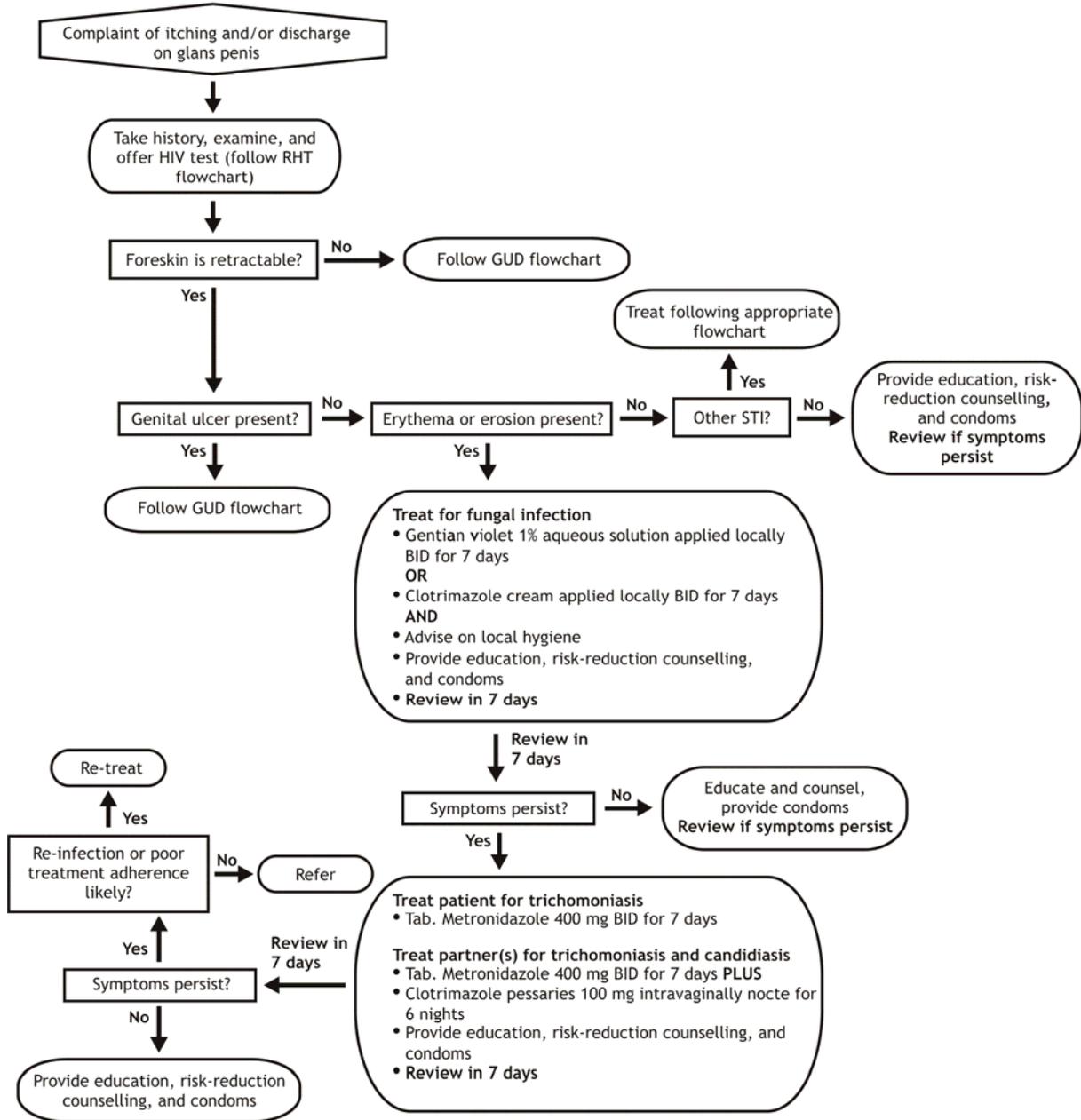
Components of the Flowchart
Balinitis Flowchart
Management of RPR/VDRL Positive Cases

Components of the Flowchart

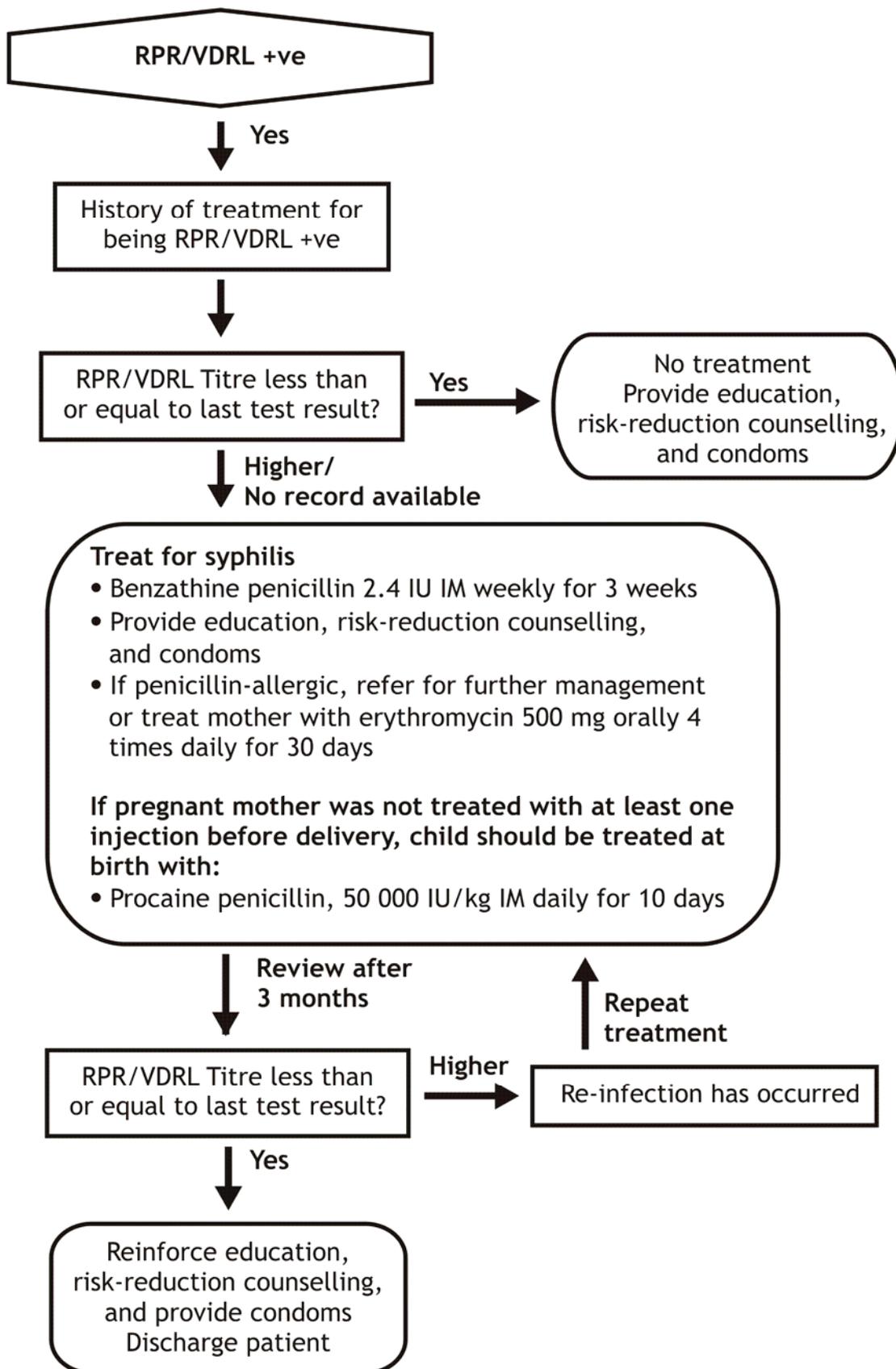


Source: WHO

Balanitis Flowchart



Management of RPR/VDRL Positive Cases



Appendix D: Observation Checklist

Observation Checklist	Date:
Patient-Centred STI Screening and Syndromic Management	
Observer/Trainer:	Trainee/Health-Care Provider:

Scoring Guide: **0= not observed**
1= observed with beginning learner communication skills or partially completed tasks
2= observed with expert patient-centred communication skills* and completed all tasks

Session Content	Observed?	Observed With prompt	Not Applicable	Notes
Beginning the Visit				
Introduced self	0 1 2			
Used patient name	0 1 2			
Started with short non-medical interaction	0 1 2			
Elicited the patient's full agenda using multiple requests upfront	0 1 2			
Requested patient prioritisation	0 1 2			
Negotiated agenda including provider concerns	0 1 2			
Prioritised pt's most important concern	0 1 2			
Offered routine HIV testing: <input type="checkbox"/> signs/symptoms of HIV/AIDS <input type="checkbox"/> pregnant woman in ANC setting <input type="checkbox"/> STI patient <input type="checkbox"/> general medical exam	0 1 2			
Gathering Information and Assessing Risk Behaviours				
Discussed confidentiality	0 1 2			
Used normalising language when asking about sensitive behaviours and/or feelings	0 1 2			
Invited patient to talk about concerns, beliefs, and expectations about health condition and health behaviour	0 1 2			
Used mainly open-ended, non-leading questions	0 1 2			
Used active listening techniques: eye contact, non-verbal cues, paraphrase/summarise patient concerns	0 1 2			
Elicited key information on STI history and symptoms while remaining centred on patient's perspective and concerns	0 1 2			
Gathered info on STI risk factors: <input type="checkbox"/> vaginal discharge/LAP: age < 10 years <input type="checkbox"/> vaginal discharge/LAP: patient complains of yellow discharge <input type="checkbox"/> vaginal discharge/LAP: missed or overdue period <input type="checkbox"/> vaginal discharge/LAP: recent delivery or abortion <input type="checkbox"/> urethral discharge: believes partner unfaithful <input type="checkbox"/> urethral discharge: burning at urination	0 1 2			

Offering HIV testing					
For those not qualifying for routine HIV testing initially, offered HIV testing to those who disclosed: <input type="checkbox"/> unprotected anal or vaginal sex with partner of unknown or discordant HIV status <input type="checkbox"/> Needle/works sharing with injection drug use		0	1	2	
Physical Exam					
Ensured privacy		0	1	2	
Prepared adequately for exam: hand washing, gloves, sterile instruments, light source		0	1	2	
Prepared patient for exam with description before action		0	1	2	
Performed speculum and bimanual exam gently with minimum discomfort		0	1	2	
Conducted physical exam with observation for appropriate signs: Men and Women: <input type="checkbox"/> temp > 28 <input type="checkbox"/> genital ulcer <input type="checkbox"/> vesicles <input type="checkbox"/> abdominal mass <input type="checkbox"/> rebound tenderness /guarding		Men: <input type="checkbox"/> scrotal swelling <input type="checkbox"/> elevated/rotated testes Women: <input type="checkbox"/> cervical mucopus <input type="checkbox"/> yellow vaginal discharge <input type="checkbox"/> cervical motion tenderness <input type="checkbox"/> vulvar erythema / curd-like discharge <input type="checkbox"/> vaginal bleeding	0	1	2
Sharing Information - STI Diagnosis					
Used language patient could understand to describe physical findings		0	1	2	
Determined diagnosis consistent with algorithm: <input type="checkbox"/> GUD <input type="checkbox"/> vaginal discharge/LAP <input type="checkbox"/> urethral discharge <input type="checkbox"/> inguinal bubo <input type="checkbox"/> acute scrotal swelling <input type="checkbox"/> ophthalmia neonatorum <input type="checkbox"/> other: _____		0	1	2	
Gave diagnosis in sensitive manner, acknowledging patient cues and reactions		0	1	2	
Shared information on syndromic diagnosis, starting with patient's knowledge and beliefs about the illness		0	1	2	
Asked patient if they had any questions about syndromic diagnosis		0	1	2	
Determining Stage of Change					
Explored knowledge about HIV/STI risk behaviours		0	1	2	
Clarified misperceptions in words patient can understand		0	1	2	
Assessed patient's perception of importance of changing target behaviour		0	1	2	
Explored recent risk incidents and previous risk-reduction attempts		0	1	2	
Assessed, summarised, and reflected back patient's motivators and concerns about behaviour change		0	1	2	

Counselling for Risk-Reduction and Behaviour Change				
Gathered adequate information to assess initial stage of change for condom use and partner discussions about HIV/STI: <input type="checkbox"/> precontemplation <input type="checkbox"/> contemplation <input type="checkbox"/> ready for action/preparation <input type="checkbox"/> action <input type="checkbox"/> maintenance	0 1 2			
Precontemplation counselling strategies: <input type="checkbox"/> inquired about pros and cons of behaviour <input type="checkbox"/> discussed impact of behaviour <input type="checkbox"/> used empathic and summary reflections <input type="checkbox"/> asked if patient wanted information about health risks associated with target behaviour <input type="checkbox"/> story telling	0 1 2			
Contemplation counselling strategies: <input type="checkbox"/> explored cons for behaviour change using reflection and summarisation <input type="checkbox"/> explored pros for behaviour change using reflection and summarisation <input type="checkbox"/> demonstrated empathy and respect for patient's beliefs and feelings	0 1 2			
Ready for action/Preparation counselling strategies: <input type="checkbox"/> asked patient to brainstorm specific steps, and skills required for carrying out a behaviour change plan <input type="checkbox"/> helped patient create realistic plan based on resources, time, and support <input type="checkbox"/> rehearsed behaviour <input type="checkbox"/> predicted barriers <input type="checkbox"/> assessed confidence	0 1 2			
Action counselling strategies: <input type="checkbox"/> discussed initial experience with behaviour change plan <input type="checkbox"/> celebrated successes <input type="checkbox"/> refined skills (role-plays or practice) <input type="checkbox"/> explored potential triggers for relapse <input type="checkbox"/> assessed confidence	0 1 2			
Maintenance counselling strategies: <input type="checkbox"/> assessed patient experiences <input type="checkbox"/> celebrated successes <input type="checkbox"/> explored triggers for relapse <input type="checkbox"/> assessed confidence	0 1 2			
Reaching Common Ground - STI Treatment, Partner Management, and Risk-reduction Planning				
Recommended appropriate treatment: <input type="checkbox"/> Ceftriaxone 250 mg IM single dose <input type="checkbox"/> Benzathene Penicillin 2.4 million IU IM single dose <input type="checkbox"/> Acyclovir 400 mg PO TID for 7 days <input type="checkbox"/> Erythromycin 500 mg PO QID for 7 days <input type="checkbox"/> Doxycycline 100 mg PO BID 7 days <input type="checkbox"/> Doxycycline 100 mg PO BID for 14 days <input type="checkbox"/> Doxycycline 400 mg TID for 00 days <input type="checkbox"/> Metronidazole 400 mg PO BID for 7 days <input type="checkbox"/> Metronidazole 400 mg PO TID for 14 days <input type="checkbox"/> Clotrimazole cream or 100 mg pessaries for 6 days <input type="checkbox"/> Paracetamol <input type="checkbox"/> Other: _____	0 1 2			
Reviewed suggested treatment regimen in words patient could understand, and adjusted plan as feasible in response to patient concerns	0 1 2			

Reviewed suggested plan for follow-up care, and adjusted plan as feasible in response to patient concerns	0 1 2		
Asked patient to describe treatment plan in own words	0 1 2		
Reached agreement with patient on specific steps to distribute and discuss contact slip(s) with sexual partner(s)	0 1 2		
Agreed upon risk-reduction plan matching patient's readiness for change	0 1 2		
Reinforced skills to carry out: <input type="checkbox"/> treatment plan, using <input type="checkbox"/> role-play <input type="checkbox"/> problem-solving <input type="checkbox"/> partner management plan, using <input type="checkbox"/> role-play <input type="checkbox"/> problem-solving <input type="checkbox"/> risk-reduction plan, using <input type="checkbox"/> role-play <input type="checkbox"/> problem-solving	0 1 2		
Providing HIV Test Result and Post-Test Counselling			
Provided test results simply and clearly, discussed meaning of results	0 1 2		
Assessed patient's readiness to learn result and perceived ability to cope with result, if positive	0 1 2		
Provided results in calm, respectful, compassionate manner	0 1 2		
HIV negative result: <input type="checkbox"/> emphasis on skills and plans to stay negative <input type="checkbox"/> reviewed risk-reduction plans in context of results <input type="checkbox"/> discussed partner testing	0 1 2		
HIV positive result: <input type="checkbox"/> identified support needed <input type="checkbox"/> discussed testing needed for ARVs <input type="checkbox"/> discussed partner testing <input type="checkbox"/> reviewed risk-reduction plans in context of results <input type="checkbox"/> discussed preventing infection to partner(s) <input type="checkbox"/> discussed follow-up recommended	0 1 2		
Providing Closure - Ensuring Appropriate Follow-Up			
Summarised and affirmed agreement with plan of action for each problem.	0 1 2		
Confirmed plans to follow-up for referrals	0 1 2		
Asked whether patient had any additional questions or concerns	0 1 2		
Practitioner spoke for: 0 = More than half the time 1 = About half the time 2 = Less than half the time			

Total Score = _____ /106 (maximum indicated) = _____%

*** Expert Communication Skills**

- Maintained good eye contact
- Used active listening – non-verbal cues
- Had warm, accepting body language
- Mainly used open-ended questions
- Avoided interrupting
- Used summaries and reflections