

Building the competence and confidence of nurse and midwife educators.



# Campus to Clinic

## Mentoring Guide for Participants

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## **Abbreviations and Acronyms**

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3TC	Lamivudine
ABC	Abacavir
AFB	Acid-fast bacteria
ALT	Alaninaminotransferase, a liver enzyme
ANC	Antenatal care
ART	Antiretroviral therapy
ARV	Antiretroviral
AST	Aspartate transaminase or aspartate aminotransferase, a liver enzyme
AZT	Zidovudine
BCG	Bacille Calmette-Guérin
CD4	T-lymphocyte CD4 cell count
COCs	Combined oral contraceptive pills
CTX	Cotrimoxazole
d4T	Stavudine
DOTS	Directly Observed Treatment Strategy
ECPs	Emergency contraceptive pills
EFV	Efavirenz
ELISA	Enzyme-linked immunosorbent assay
EPI	Expanded Programme on Immunization
FBC	Full blood count
FTC	Emtricitabine
HIV	Human immunodeficiency virus
HIV VL	HIV viral load
IMAI	Integrated Management of Adolescent and Adult Illness
IMCI	Integrated Management of Childhood Illness
INH	Isoniazid
IPT	Isoniazid preventive therapy
IRIS	Immune reconstitution inflammatory syndrome
IUD	Intra-uterine device
LAM	Lactational amenorrhea method
LFT	Liver function test
LPV/r	Ritonavir boosted lopinavir
MTCT	Mother-to-child transmission (of HIV)
NNRTI	Non-nucleoside reverse transcriptase inhibitor
NRTI	Nucleoside reverse transcriptase inhibitor
NVP	Nevirapine
OIs	Opportunistic infections
PLHIV	Person living with HIV
PI	Protease inhibitor
PITC	Provider-initiated HIV testing and counselling
PMTCT	Prevention of mother-to-child transmission (of HIV)
PCP	Pneumocystis pneumonia
PCR	Polymerase chain reaction
POPs	Progestin-only oral contraceptive pills
PPD	Purified protein derivative
PTB	Pulmonary tuberculosis

RFT	Renal function test
sdNVP	Single-dose nevirapine
SRH	Sexual and reproductive health
STI	Sexually transmitted infection
TB	Tuberculosis
TDF	Tenofovir
TST	Tuberculin skin test
UNAIDS	Joint United Nations Programme on HIV/AIDS
VL	Viral load
WB	Western Blot
WHO	World Health Organization

## **Introduction**

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As an important partner in the global effort to expand access to quality HIV prevention, care, and treatment services to all people living with HIV (PLHIV) and their families, ICAP at Columbia University supports the design, development, and implementation of a diverse range of HIV-related clinical and systems strengthening activities in 13 countries. As part of its multidisciplinary approach and commitment to improving services for PLHIV, the ICAP Nurse Capacity Initiative (INCI), funded by HRSA in April 2009, is an innovative multi-country program designed to build models that empower nurses and midwives to provide HIV-related care that they are positioned to deliver, with increased knowledge, clinical skills, and team leadership, and to support transformative nursing education through building models with targeted interventions at nursing schools that can be replicated and sustained. INCI has proudly launched the Campus-to-Clinic (CTC) Initiative in South Africa in 2011. CTC is a pilot program to mentor nurse educators in sub-Saharan Africa and to adequately prepare graduating nurses for the demands of clinical work in the provision of HIV care and treatment services.

The CTC Initiative focuses on bridging the gap between pre-service and in-service training and building the competence and confidence of nurse educators and mentors in HIV and TB care and treatment. Governments across sub-Saharan Africa reacted initially to the HIV pandemic by mobilizing healthcare workers to give care to those in dire need. With the frontline of most healthcare systems being nurses, they were called upon to have increased competencies required to provide comprehensive HIV care. Additionally, Ministries of Health are increasingly developing broader strategies for scaling-up the healthcare workforce. This shift focuses on the educational institutions that prepare students for clinical realities. In particular, it became apparent that nursing educators and mentors need expanded knowledge, clinical skills, and new teaching methodologies that prepare nursing students for their extensive role at the clinical level. Ultimately, nurses who are competent to care for their communities will improve health outcomes and remain in their jobs.

INCI offers its CTC Curriculum to empower nursing educators and mentors with a new area of expertise. It opens the door to teach in new ways with confidence. It can be adapted to different communities, cultures, and countries.

# **Module 1      Course Overview and Introduction to Nurse Mentoring and Adult Learning**

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**Session 1.1: Welcome and Introductory Activity**

**Session 1.2: Training Objectives, Agenda, and Ground Rules**

**Session 1.3: Training Pre-Test**

**Session 1.4: Basic Principles of Adult Learning and Nurse Mentoring**

**Session 1.5: Creating an Evolving Case Study**

## **Learning Objectives**

**After completing this module, participants will be able to:**

- Know more about the trainers and other training participants.
- Explain the importance of a training that is specific to nurse mentors and educators, as well as HIV care and treatment.
- Understand the training objectives and agenda and set training “ground rules”.
- Complete the training pre-test.
- Describe the basic principles of adult learning.
- Practice basic communication skills required for teaching and nurse mentoring.
- Describe the importance of case-based learning for nurses.
- Create the background for an evolving case study.

## Session 1.1

## Welcome and Introductory Activity

### Session Objective

After completing this session, participants will be able to:

- Know more about the trainers and other training participants and have discussed expectations for the training.

### Exercise 1: Getting to Know Each Other: Large group discussion and individual reflection

<b>Purpose</b>	<ul style="list-style-type: none"><li>• To provide an opportunity to get to know one another a bit better</li><li>• To create a comfortable learning environment</li><li>• To discuss participants' expectations for the training, personal and professional strengths, and any concerns about eventually mentoring and teaching other nurses</li></ul>
<b>Instruction</b>	<p><b>Introductions</b></p> <ol style="list-style-type: none"><li>1. Participants will be asked to take a piece of paper and write their name vertically down the left side. Next, they should choose a word that starts with each letter of their name. Each word should describe something about them. Participants should write those words horizontally across the paper, using the letters of their name as the first letter of each descriptive word.</li><li>2. Participants will be asked to introduce themselves, state where they work, and share their personal descriptions.</li></ol> <p><b>Individual Reflection</b></p> <ol style="list-style-type: none"><li>3. Participants should take a few minutes to think about the following questions, and then to write their responses on card or paper.<ul style="list-style-type: none"><li>• <b>Concerns:</b> What concerns or worries do you have about mentoring, educating, and teaching other nurses to care for people living with HIV?</li><li>• <b>Expectations:</b> What do you hope to learn from this training course and how do you think it might help you in your professional practice?</li><li>• <b>Strengths:</b> What is a personal strength or talent that you think helps, or will help you mentor, educate, and teach other nurses effectively?</li></ul></li><li>4. Participants will be invited to discuss their concerns, expectations, and strengths with the group.</li></ol>



## **Session 1.2      Training Objectives, Agenda, and Ground Rules**

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### **Session Objectives**

**After completing this session, participants will be able to:**

- Be able to explain the importance of a training that is specific to nurse mentors and educators, as well as HIV care and treatment.
- Understand the training objectives and agenda and set training “ground rules”.

### **Definition of Nurse Mentoring<sup>1</sup>**

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There are a variety of definitions for nurse mentoring. The most important components are:

- Nurse mentoring involves relationship building, identifying areas for improvement, coaching, building capacity, and modelling clinical skills and appropriate attitudes with mentees.
- Nurse mentors are experienced teachers and educators who provide case review, problem solving, quality assurance, and continuing education to nurses, in the classroom and clinic settings.
- Nurse mentors and educators can ease the transition from the classroom environment to the work environment, by assisting mentees with problem solving, clinical skills, and handling the emotional impact of the work.
- Nurse mentors and educators provide “hands-on” HIV care and treatment training for their mentees in health facilities.
- Nurse mentors and educators acts as role models, resources, and consultants to the mentee, mutually sharing observations and discussing strategies to help other nurses resolve personal and professional problems as they arise.
- Nurse mentors and educators provide a critical link between mentees and supervisors, improving the supervisor’s knowledge and understanding of the employee’s strengths and weaknesses and helping to ensure that problems are addressed early on.
- A nurse mentor and educator’s ultimate goal is to help each of their mentees to do the best job possible and to help maximize the number of positive outcomes for PLHIVs.

This course will provide nurse mentors and educators with important information and skills that will help them build their teaching capacity as well as their own competencies on HIV care and treatment. A training specific to nurse mentors and educators and HIV care and treatment is important because:

- Nurse mentors and educators need advanced knowledge, skills, and ongoing training to meet the specific needs of HIV-infected clients.

- Few countries have a continuing education system for nurses, so there is little follow-up with trainees after initial training.
- Nurse mentors and educators can strengthen health care systems by providing continuing education to nurses and working towards creating more efficient clinical settings.

## **Campus-to-Clinic (CTC) Training Objectives**

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By the end of this training course, participants will:

- Explain how the principles of adult learning theory apply to mentoring.
- Demonstrate basic communication and mentoring skills.
- Discuss the prevalence and impacts of HIV globally, in sub-Saharan Africa, and in their own country setting.
- Review the definitions of and differences between HIV and AIDS.
- Review key components of HIV transmission, testing, counseling, and prevention protocols.
- Review the key information for the clinical care package of HIV care and treatment services for PLHIV.
- Review key features of HIV disease progression.
- Review laboratory tests used to diagnose HIV in infants, children, and adults.
- Apply the WHO clinical staging system for HIV-infected children and adults.
- Review routine care and treatment procedures for pregnant HIV-infected women.
- Describe procedures for safe infant feeding practices.
- Review clinical manifestations, diagnosis, prevention, and treatment of tuberculosis (TB).
- Discuss challenges one may encounter when simultaneously using ART and anti-TB drugs to treat co-infected individuals.
- Reflect on their own attitudes, values, and beliefs on sexuality and discuss how these may affect their work with clients.
- Identify prevention strategies used successfully in preventing STI/HIV transmission.
- Review childbearing choices and contraceptive options for women living with HIV.
- Practice how to educate clients on issues of sexuality, positive prevention, discordance, and sexual health.
- Review basic principles of clinical decision-making.

## **Training Syllabus and Agenda**

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The training includes 9 half-day modules, each with its own learning objectives. Each module is approximately 4 hours and is divided into a number of sessions:

- Module 1: Course Overview and Introduction to Nurse Mentoring and Adult Learning
- Module 2: HIV Transmission, Counselling, and Testing
- Module 3: Clinical Care for People Living with HIV

- Module 4: The Progression of HIV
- Module 5: Preventing Mother-to-Child Transmission of HIV
- Module 6: Paediatric HIV
- Module 7: Tuberculosis and HIV
- Module 8: Sexual and Reproductive Health Services for People Living with HIV
- Module 9: Review of Clinical Decision-Making, Course Evaluation, and Closure

**Exercise 2: Setting Ground Rules and Introducing Daily Activities:  
Large group discussion**

<p><b>Purpose</b></p>	<ul style="list-style-type: none"> <li>• To develop and agree on a set of ground rules that will create an environment that facilitates learning</li> <li>• To introduce the Anonymous Question Bowl as a safe space for asking questions</li> <li>• To introduce the “Rounds” as a way to start off each day of the training on the right foot</li> <li>• To introduce the Daily Evaluation Activity as a way to give feedback to the trainers and to make adjustments DURING the training course</li> </ul>
<p><b>Instruction</b></p>	<p><b>Develop and Agree on the Ground Rules</b></p> <ol style="list-style-type: none"> <li>1. Participants will be asked to discuss what rules will help make them feel comfortable speaking during group discussions.</li> <li>2. The ground rules agreed by the group will be recorded on flip chart paper and posted on the wall for reference throughout the training.</li> </ol> <p><b>Introduce the Anonymous Question Bowl</b></p> <ol style="list-style-type: none"> <li>3. The trainer will provide an overview of the “Anonymous Question Bowl”, which is a way for participants to anonymously submit questions about the training or training content.</li> </ol> <p><b>Introduce the “Rounds”</b></p> <ol style="list-style-type: none"> <li>4. Before each training session begins, the group (participants and trainers) will check in with each other, to recap and answer any questions from the previous day, and to review the agenda for the day.</li> <li>5. Participants should feel comfortable discussing, during the “Rounds”, any distractions or events that are on their minds.</li> </ol> <p><b>Introduce the Daily Evaluation</b></p> <ol style="list-style-type: none"> <li>6. At the end of each training day, the group will debrief using the Daily Evaluation Activity called “How did it Go?”</li> <li>7. Participants will be given 2 small sheets of paper.</li> </ol>

	<p>On one of the sheets of paper they should draw a smiley face (☺) and write one thing that was good about the day. On the other sheet they should draw a sad face (☹) and write one thing they did not like about the day.</p> <ol style="list-style-type: none"><li>8. Participants should not write their names on the paper so that they are responding anonymously.</li><li>9. Both papers should be put into the “How did it Go?” envelope.</li></ol>
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## Session 1.3      Pre-Test

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### Session Objective

**After completing this session, participants will be able to:**

- Complete the training pre-test.

#### **Training pre-test**

1. Participants will have about 25 minutes to complete the **pre-test**, which can be found in *Appendix 1B: Pre-Test*.
2. Participants need not write their names on the pre-test. Instead, they should write a number at the top — any number, for example a favourite number or their birth date. But they should remember this number, as they will need to record the exact same number at the top of their **post-test**. Participants may want to record this number on the inside front cover of their Participant Manuals, so that they will not forget it.
3. The objective of the pre-test is to find out what the group as a whole knows about HIV care and treatment and the group's learning needs. The results on the pre-test will guide the amount of time spent on specific modules and highlight learning needs.
4. This test will be re-administered just before the closing session (as the **post-test**). Comparing the answers to the pre- and post-test questionnaires will measure the changes that occur in the participants' knowledge between the beginning and the end of the course. The results will provide some indication of whether the material and teaching methods have been successful.
5. The test answers will be reviewed after the post-tests are collected on the last day of training.

## **Session 1.4      Basic Principles of Adult Learning and Nurse Mentoring**

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### **Session Objectives**

**After completing this session, participants will:**

- Describe the basic principles of adult learning.
- Practice basic communication skills required for teaching and mentoring.

### **Principles of Adult Learning<sup>2</sup>**

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The teacher of adults has a different job from the one who teaches children. When teaching adult students, it's important to understand how adults learn. Malcolm Knowles, a pioneer in the study of adult learning, observed that adults learn best when:

- They understand why something is important to know or do.
- They have the freedom to learn in their own way and they can direct their learning.
- Learning is experiential.
- The process is positive and encouraging.

One of the most important rules in teaching is to remember that people learn differently.

- Some people will remember everything they hear. They are auditory learners. Teachers can best communicate with them by speaking clearly, asking questions, and using phrases like, "How does that sound to you?"
- Others will not remember anything unless they see it. They are visual learners. Teachers can best communicate with them by providing handouts, writing on the flip chart, and using phrases like, "Do you see how this works?"
- Sometimes people need to practice a skill before they remember it. They are kinaesthetic learners. Teachers can best communicate with them by involving volunteers, allowing them to practice what they're learning, and using phrases like, "How do you feel about that?"
- Most people use a combination of all 3 learning styles. Therefore, it is important to incorporate different teaching styles to accommodate all types of learners.

Any training or teaching activity that gets people involved makes the learning experiential.

- This includes small group discussions, role play, skits, analyzing a case study, writing or drawing something specific, having a student be co-trainer or teacher for a day – activity of any kind. Activities also keep

people energized, especially activities that involve getting up and moving about.

## **Incorporating adult learning in nurse mentoring, educating, and teaching<sup>3</sup>**

Teaching adults is a challenging task that requires flexibility, excellent communication and relationship-building skills, and up-to-date clinical knowledge and teaching skills.

Adults prefer learning situations which:

### **1. Are practical and problem-centred, so...**

- Give overviews, summaries, examples, and use stories and case studies to link clinical theory to practice.
- Discuss and help your mentees plan for direct application of new information.
- Use content that they can make use of right away and point out the immediate usefulness of information presented.
- Anticipate problems applying the new ideas to their clients and clinic settings, so offer concrete and practical suggestions.
- Avoid being too theoretical.

### **2. Promote their positive self-esteem, so...**

- Provide low-risk activities in small group settings, like case studies or problem analysis.
- Create a comfortable and safe learning environment and utilise methods that will reassure your mentees that their contributions will be received respectfully.
- Help mentees become more effective and confident through guided skill practice and one-on-one bedside clinical teaching.

### **3. Integrate new ideas with existing knowledge, so...**

- Help your mentees recall what they already know from prior experience that relates to the topic of you are teaching.
- Ask what else they would like to know about the topic.
- Suggest follow up ideas and next steps for support and implementation after the teaching or mentoring session.

### **4. Show respect for the individual learner, so...**

- Never "talk down" to mentees.
- Validate and affirm their knowledge, contributions, and successes.
- Ask for feedback on your work and provide opportunities for input.
- Avoid being judgmental or overly critical.

### **5. Capitalize on their experience, so...**

- Don't ignore what your mentees already know; their experience and expertise are resources for you.

- Plan alternate learning activities and choices, so mentees can adjust the process to fit their experience level.
- Create activities that use your mentees' experience and knowledge.
- Listen and gauge your mentees' learning needs and understanding before, during, and after any teaching or mentoring session.

#### **6. Allow choice and self-direction, so...**

- Build your plans around the learners' needs.
- Share your agenda and assumptions and ask for input on them.
- Ask what they know already about the topic (their perception).
- Ask what they would like to know about the topic.
- Build in options within your mentoring and training plans so you can easily shift if needed.
- Allow time for planning their next steps related to training and ongoing education.

## **Overview of Listening and Learning Skills<sup>456</sup>**

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Nurse mentors and educators are important role models for other nurses, so relationship and communication skills are crucial. Content and style are both critical in effective communication in a health care setting.

Remember: while knowledge about a subject is a prerequisite for effective teaching, learning is more often a result of how knowledge is communicated!

These are the 7 key listening and learning skills (listed in *Appendix 1D: Listening and Learning Skills Checklist*) that nurse mentors and educators should always use:

- Skill 1: Use helpful non-verbal communication
- Skill 2: Actively listen and show interest
- Skill 3: Ask open-ended questions
- Skill 4: Reflect back what the person is saying
- Skill 5: Empathize — show that you understand how the person feels
- Skill 6: Avoid judging words and provide positive, constructive feedback
- Skill 7: Help set goals and summarise new concepts

Participants can also to *Appendix 1C: Tips on Mentoring and Coaching*, and should incorporate these general principles into their communication, mentoring, and teaching approaches.

### **Skill 1: Use helpful non-verbal communication**

Non-verbal communication refers to all aspects of a message that are not conveyed by the literal meaning of words. It includes the impact of gestures, gaze, posture, and expressions capable of substituting for words and conveying information and attitude. The acronym "ROLES", as shown



in Table 1.1: ROLES can be used to help remind nurse mentors and educators of behaviours that convey helpful non-verbal communication, which encourage their mentees to feel that they are being listened to and respected.

**Table 1.1: ROLES**

<b>Non-verbal behaviour that conveys caring</b>	
<b>R</b>	A <b>relaxed</b> and natural attitude with your mentee is important. Do not move around quickly or chat nervously.
<b>O</b>	Adapt an <b>open posture</b> . Crossing one's legs or arms can signal that you are critical of what the person is saying or are not listening. Using an open posture shows that you are open to the person and to what the person is saying.
<b>L</b>	<b>Leaning forward</b> toward the person is a natural sign of involvement.
<b>E</b>	Culturally appropriate <b>eye contact</b> should be maintained to communicate interest; never stare or glare at the person.
<b>S</b>	<b>Sitting squarely</b> facing another person shows involvement. If for any reason this may be threatening, then sitting to the side is an option.

These physical behaviours convey respect and genuine caring. However, these are guidelines, and should be adapted based on cultural and social expectations.

### **Skill 2: Actively listen and show interest**

Another way to show that you are interested and want to encourage a person to talk is to use gestures such as nodding and smiling, responses such as “*Mmm*”, or “*Aha*” and skills such as clarifying and summarising. These skills, also referred to as attending skills, demonstrate that you are actively listening and invite the person to relax and talk more about herself or himself.

### **Skill 3: Ask open-ended questions**

Asking questions helps identify, clarify, and break down problems into smaller, more manageable parts. Open-ended questions begin with “*how*”, “*what*”, “*when*”, “*where*” or “*why*”. Open-ended questions encourage responses that lead to further discussion, whereas closed-ended questions tell a person the answer that you expect; responses are usually one-word answers such as, “*Yes*” or “*No*”. Closed-ended questions usually start with words like “*are you?*” “*did he?*” “*has she?*” “*do you?*”

Examples of open-ended questions a nurse mentor and educator can use include:

- “*How do you see this situation?*”
- “*What are your reasons for . . . ?*”
- “*Can you give me an example?*”
- “*How does this affect you?*”

- “How did you decide that?”
- “What would you like to do about it?”
- “What part did you play?”

#### **Skill 4: Reflect back what the person is saying**

"Reflecting back", also referred to as paraphrasing, focuses on listening first and then reflecting the two parts of the speaker's message — *fact* and *feeling* — back to the speaker. Often, the fact is clearly stated, but a good listener is “listening between the lines” for the “feeling” part of the communication. Paraphrases are not an opportunity to respond by giving an opinion, offering advice, analysing, or questioning. Using this skill is a way to check out what you heard for accuracy — did you interpret what the mentee said correctly?

Examples for *fact*:

- “So you're saying that . . .”
- “You believe that . . .”
- “The problem is . . .”

Examples for *feeling*:

- “You feel that . . .”
- “Your reaction is . . .”
- “And that made you feel . . .”

#### **Skill 5: Empathize — show that you understand how the person feels**

Empathy develops when one person is able to comprehend (or understand) what another person is feeling. Empathy is used to respond to a statement that is emotional. Empathy, however, is not the same as sympathy; sympathy implies that you feel sorry for (pity) the other person.

Empathy is needed to understand how the mentee feels and helps to encourage the person to discuss issues further. For example, if a mentee says, “I just can't tell that poor young mother that her child has HIV!” the nurse mentor could respond by saying “It sounds like you might be afraid of the client's reaction.”

#### **Skill 6: Avoid judging words and provide positive, constructive feedback**

Judging words are words like: *right, wrong, well, badly, good enough, and properly*. If a nurse mentor and educator uses judging words when asking questions, mentees may feel that they are wrong or that they should respond in a certain way to avoid disappointing the nurse mentor. Avoid phrasing a question in a way that is overly critical, laughing at or humiliating a mentee, contradicting or arguing with a mentee, and being disrespectful of a mentee's beliefs, way of life, or method of providing client care.

Nurse mentors and educators should always focus on providing positive and non-judgmental feedback. Judgmental feedback is negative and inhibits the mentee from talking freely and usually meets more resistance. Positive feedback, however, is typically met with acceptance. Avoid vague, general statements like “*you did a good job*” or “*that was a really bad decision.*” Instead, provide information that focuses on specific behaviours and individual action: “*You did a great job with counselling that client. You demonstrated real sensitivity and provided her with very accurate and comprehensive information.*”

It is important not to embarrass the mentee in front of a client. At the same time, you cannot allow your mentee to do anything that will endanger the health or well-being of the client. This means that sometimes feedback is held back until you can talk in private; in other cases, the feedback needs to be given immediately in a diplomatic, supportive, yet honest way. When making suggestions for improvement, use statements like: “*You may want to consider...*” and “*Another option is to...*” Constructive feedback can also be saying something like, “*The information you covered about how HIV is transmitted was accurate, but I’m not sure the client was following you.*”

### **Skill 7: Help set goals and summarise new concepts**

Toward the end of a supervision, training, or teaching session, the nurse mentor should work with the mentee to come up with “next steps” related to their own learning:

**Develop “next steps”.** The nurse mentor could initiate this part of the discussion by stating, “*Okay, now let’s think about the things you will do this week based on what we talked about.*”

To help the mentee develop a more specific plan, the nurse mentor could ask:

- *What do you think might be the best thing to do?*
- *What will you do now?*
- *How will you do this?*
- *Who might help you?*
- *When will you do this?*

**Summarise the mentee’s plan and review next steps.** The nurse mentor could say, “*I think we’ve talked about a lot of important things today. (List main points.) We agreed that the best next steps are to...*”

### **Exercise 3: Practise Listening and Learning Skills for Nurse Mentors and Educators: Role play in small groups and large group discussion**

<b>Purpose</b>	<ul style="list-style-type: none"> <li>• To provide participants with an opportunity to gain experience using the 7 basic listening and learning skills in conversation</li> </ul>
<b>Instruction</b>	<b>Part 1: Trainer Demonstration</b>

1. 2 trainers or a trainer and volunteer will role play a discussion about one of the suggested topics below, as the trainer demonstrates the 7 basic listening and learning skills.
2. During the role play, participants should follow along with *Appendix 1D: Listening and Learning Skills Checklist*, as they observe the basic listening and learning skills demonstration.

**Topics:**

- Describe a change you would like to make in your job.
- Talk about a change you think needs to be made in the clinic and what you would like to do about it.
- Talk about a recent challenging situation that you experienced with client.
- Talk about a recent challenging situation that you experienced when teaching or mentoring another nurse.
- Talk about a personal or professional goal.
- Any other topic you would like to talk about.

3. After the role play, the trainer will debrief the training skills demonstration using *Appendix 1D: Listening and Learning Skills Checklist*.

**Part 2: Small Group Work**

4. Participants will be asked to break into groups of 3 and review the case studies below.
5. Participants will be asked to:
  - Identify two “speakers” and an “observer”.
  - One of the “speakers” will discuss a topic listed above and the other “speaker” will practise responding, by using as many of the listening and learning skills possible.
  - The role play should last about 5 minutes.
6. After 5 minutes, participants should stop the exercise and ask the “observer” to provide feedback on each of the skills and techniques observed using the *Listening and Learning Skills Checklist*.
7. Repeat this exercise until everyone has had an opportunity to practise each role.

**Part 3: Large Group Discussion**

8. Participants will reconvene in the large group and discuss what the “speakers” did well and how they can improve their communication.

## Session 1.5      **Creating an Evolving Case Study**

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### **Session Objectives**

**After completing this session, participants will be able to:**

- Describe the importance of case-based learning for nurses.
- Create a background for an evolving case study.

### **Teaching with Case Studies**

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- A case study is a written description of a hypothetical situation that is used for analysis and discussion. It is a detailed account of a real or hypothetical occurrence (or series of related events involving a problem) that participants might encounter in real life. It is analyzed and discussed. Learners are often asked to arrive at a plan of action to solve the problem.
- Case studies are effective tools for clinical teaching. Teaching by case study method is meant to develop the ability of students to apply the theory they have learned to a ‘real world’ situation.
- The goal of case studies is not necessarily a single correct answer, but rather an analysis of the information presented and how an informed decision is made.
- In order for the case discussion to facilitate learning, the case must be relevant to the learner and must contain sufficient information to lead the person to an appropriate conclusion or result.
- Case-based teaching is a valuable strategy in all areas of clinical education, and it is particularly important for educating nurses about HIV disease and about individualizing HIV care and treatment, given the complexity and chronic nature of the disease.

<b>Exercise 4: Creating an evolving case study: Large group exercise</b>	
<b>Purpose</b>	<ul style="list-style-type: none"><li>• To help participants create the initial framework and background for an evolving case study, which will be used throughout the training modules</li></ul>
<b>Instruction</b>	<p><b>Large Group Discussion</b></p> <ol style="list-style-type: none"><li>1. Participants should review the background narrative for the evolving case study in their Participant Manuals.</li><li>2. The trainer will begin the exercise by asking participants to choose a name for their case study community.</li><li>3. The trainer will read the suggested narrative for the case study, and participants should fill in missing information and relevant details, based on their own setting and context.</li><li>4. Participants will be invited to add more detail and</li></ol>

adapt the narrative as needed.
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## **Background for the Evolving Case Study**

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### **Welcome to (insert the name of your case study community)**

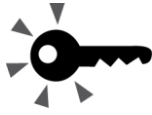
(Insert the name of your case study community) is a town of about (use desired population base) people located about 75 km from (insert name of capital city). This community has many families with small children, as well as extended families with a significant number of elders.

There is a small government health clinic in (insert name of large town or city #2) that provides general care, VCT, and antiretroviral treatment (ART) to HIV-infected adults, adolescents, and children. The clinic is staffed by 1 doctor, 3 nurses, and 2 nurse assistants. Across town, there is a small ANC clinic for women and infants, but it is open only when the traveling nurse midwife can visit – usually about once a week (if it's not the rainy season). There is no emergency care available except for what can be provided by the 2 clinics. Severe medical problems are transferred to \_\_\_\_\_ (town #2), where there is a larger clinic, or to the capital city, where there are more comprehensive facilities.

The concept of preventive health care, or even regular health care, is not well established among the population. Many families utilize the wisdom of elders or traditional medicine handed down through the generations. The major health problem, as in many other African communities, is infectious disease: HIV, TB, and malaria. There are the 'usual' problems of diarrhoea and dehydration, especially among children and the elders, malnutrition, failure to thrive, and various parasite infestations. The problems generated by increasing HIV and TB infection are reaching dangerous levels. There seems to be not only lack of clinic staff, materials, and drug supply but also a significant knowledge gap – and not only among the few providers in town but also among the population.

### **Meet the L\_\_ family**

The L\_\_ family resides close to the main clinic in your town. S\_\_, is a 50-year old unemployed woman, who has two children: her 21-year-old son M\_\_ and 22-year-old daughter T\_\_. M\_\_ is single, lives in town, and has a job working in a small bar. T\_\_ is also unmarried and still lives with her mother. T\_\_ only has a secondary school education and sometimes earns money by watching people's children. S\_\_'s 36-year old sister, N\_\_, and her 57-year-old husband, V\_\_, also live with her, in a small, sparsely furnished 2-bedroom home with very basic amenities and poor sanitation. Both N\_\_ and V\_\_ are HIV-infected.



## **Module 1: Key Points**

- There are a variety of definitions for nurse mentoring. The most important components are:
  - Nurse mentors and educators are experienced trainers who provide case review, problem solving, quality assurance, and continuing education to other nurses, or mentees.
  - Nurse mentors and educators provide “hands-on” HIV care and treatment training for their mentees in health facilities.
  - A nurse mentor and educator’s ultimate goal is to help each of their mentees to do the best job possible and to help maximize the number of positive outcomes for PLHIVs.
- According to the principles of adult learning, adults learn best when:
  - They understand why something is important to know or do
  - They have the freedom to learn in their own way
  - Learning is experiential
  - The process is positive and encouraging
- There are 3 main learning styles: auditory, visual, and kinesthetic. Most people use a combination of these styles when learning.
- Good communication is the key component to effective teaching, supervision, and mentoring. These are the 7 key listening and learning skills that nurse mentors and educators should always use:
  - Use helpful non-verbal communication
  - Actively listen and show interest
  - Ask open-ended questions
  - Reflect back what the person is saying
  - Empathize — show that you understand how the person feels
  - Avoid words that sound judging and provide positive, constructive feedback.
  - Help set goals and summarise new concepts.
- Case studies are an effective tool for clinical teaching. Teaching by case study method is meant to develop the ability of students to apply the theory they have learned to a ‘real world’ situation.

## Appendix 1A: Sample Training Agenda

<b>Session 1</b>	
Morning or Afternoon Session	<ul style="list-style-type: none"> <li>• Official Opening</li> <li>• Module 1: Course Overview and Introduction to Nurse Mentoring and Adult Learning</li> </ul>
<b>Session 2</b>	
Morning or Afternoon Session	<ul style="list-style-type: none"> <li>• Recap and “Rounds”</li> <li>• Module 2: HIV Transmission, Counseling, and Testing</li> </ul>
<b>Session 3</b>	
Morning or Afternoon Session	<ul style="list-style-type: none"> <li>• Recap and “Rounds”</li> <li>• Module 3: The Progression of HIV</li> </ul>
<b>Session 4</b>	
Morning or Afternoon Session	<ul style="list-style-type: none"> <li>• Recap and “Rounds”</li> <li>• Module 4: Clinical Care for People Living with HIV</li> </ul>
<b>Session 5</b>	
Morning or Afternoon Session	<ul style="list-style-type: none"> <li>• Recap and “Rounds”</li> <li>• Module 5: Preventing Mother-to-Child Transmission of HIV</li> </ul>
<b>Session 6</b>	
Morning or Afternoon Session	<ul style="list-style-type: none"> <li>• Recap and “Rounds”</li> <li>• Module 6: Paediatric HIV</li> </ul>
<b>Session 7</b>	
Morning or Afternoon Session	<ul style="list-style-type: none"> <li>• Recap and “Rounds”</li> <li>• Module 7: Tuberculosis and HIV</li> </ul>
<b>Session 8</b>	
Morning or Afternoon Session	<ul style="list-style-type: none"> <li>• Recap and “Rounds”</li> <li>• Module 8: Sexual and Reproductive Health Services for People Living with HIV</li> </ul>
<b>Session 9</b>	
Morning or Afternoon Session	<ul style="list-style-type: none"> <li>• Recap and “Rounds”</li> <li>• Module 9: Review of Clinical Decision-Making, Course Evaluation, and Closure</li> </ul>



## Appendix 1B: Pre-Test

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Participant identification number: \_\_\_\_\_ Score: \_\_\_\_/25

- 1) Which of the following are good teaching strategies for nurse mentors and educators? (**select all that apply**)
  - a) Using case studies with mentees
  - b) Independent learning assignments
  - c) Bedside teaching
  - d) Use of visual aids
  - e) All of the above
  
- 2) A HIV-infected adolescent or adult client with which of the following meets eligibility criteria for ART?
  - a) WHO stage 2 illness
  - b) CD4  $\leq$ 350 or WHO stage 3 or 4, regardless of CD4 count
  - c) Past history of TB
  - d) I don't know
  
- 3) Before initiating ART, nurses should also think about:
  - a) Readiness for ART: The client understands what ARVs are, how they are to be taken, and is ready to take on this life-long commitment
  - b) Ability and willingness of client to return for regular follow up
  - c) Adverse reactions to cotrimozazole
  - d) All of the above
  - e) A and B
  
- 4) Which of the following statements are true regarding HIV counselling and testing?
  - a) Clients with HIV-negative rapid tests should repeat testing in 3 months to exclude the window period
  - b) It is the responsibility of clients only to initiate or request HIV testing, not providers
  - c) Both are true
  - d) Neither are true
  
- 5) When should a PCR test be done to check HIV status in an infant born to a HIV-infected mother?
  - a) 2 weeks
  - b) 6 weeks
  - c) 10 weeks
  - d) At birth
  
- 6) When should HIV-infected clients be screened for TB?
  - a) Initial visit
  - b) Initial visit + every 3 months
  - c) Initial visit + when complain of symptoms

- d) Initial visit + every follow-up visit
- 7) Who should be screened for HIV?
- A 28 year old male with multiple sexual partners
  - A 15 year girl with pulmonary TB
  - A 70 year old male with back pain
  - A 24 year old pregnant woman who was HIV-negative during her previous pregnancy
  - All of above
- 8) Family-centred care means that nurses and other healthcare workers can talk openly with caregivers about any information shared between the client and healthcare workers.
- True
  - False
- 9) Ideally, a client's CD4 cell count should be monitored how frequently?
- Every 12 months; but 6 monthly as CD4 count approaches threshold (to initiate ART)
  - Every 9 months; but 4 monthly as CD4 count approaches threshold
  - Every 6 months; but 3 monthly as CD4 count approaches threshold
  - Every 4 months; but 2 monthly as CD4 count approaches threshold
  - Every 2 months; but monthly as CD4 count approaches threshold
- 10) In HIV-infected clients, the combination of findings that could be seen with active TB are:
- A positive sputum smear with an abnormal chest x ray
  - A positive sputum smear with a normal chest x ray
  - A negative sputum smear with an abnormal chest x ray
  - Any of the above
- 11) Which are not the following are classes of antiretrovirals?
- NRTIs
  - NNRTIs
  - Tricyclics
  - Protease Inhibitors
- 12) The process of HIV post-test counseling with a client (who tests positive for HIV) should include discussion of the following:
- The diagnosis, the infection and disease process, and health changes that could occur.
  - Strategies for reducing risk of transmission to others
  - How to cope with the possible negative reactions of others
  - A and C
  - All of the above
- 13) The only reliable way to assess client adherence is with pill counts.
- True
  - False

- 14) Which of the following statements is correct?
- a) Nurses need to stress that only heterosexual behaviour is NORMAL
  - b) Nurses need to stress that homosexual, bisexual, and transsexual/transgendered behaviour is NORMAL
  - c) Nurses need to stress that homosexual, bisexual, and transsexual/transgendered behaviour is ABNORMAL
  - d) Nurses need to stress that transsexual/transgendered should not be tolerated
- 15) HIV infection, its progression in the body, and its effects on the immune system can generally be broken down into these stages: **(select all that apply)**
- a) Primary infection
  - b) Clinically asymptomatic stage
  - c) Subclinical stage
  - d) Symptomatic HIV infection
  - e) Progression from HIV to AIDS.
- 16) Nurses should always screen for STIs in clients who are sexually active.
- a) **True**
  - b) False
- 17) What advice would you give a HIV-infected client who wants to get pregnant? **(select all that apply)**
- a) It is safest when both partners have CD4 count of over 350
  - b) Do not eat eggs while pregnant
  - c) Talk to your provider and ask for his/her advice
  - d) Make sure you do not have any opportunistic infections
  - e) Make sure you are adhering to your ART regimen
- 18) Which of the following are good family planning options for PLHIV? **(select all that apply)**
- a) Condoms
  - b) Combined oral contraceptive pills (COCs), progestin-only oral contraceptive pills
  - c) Natural (fertility awareness) method
  - d) Hormonal implants
- 19) Which are key concepts of PMTCT? **(select all that apply)**
- a) Keep mothers healthy: a healthy mother is able to take care of herself, her baby and her family
  - b) It is important to reduce risk of HIV transmission during pregnancy, labour, delivery, and breastfeeding
  - c) All babies of HIV-infected mothers need ARVs and CTX
  - d) HIV-infected women should limit the number of children they have

20) Which of the following statements are true for paediatric HIV testing?  
(select all that apply)

- a) Paediatric HIV testing requires the participation and cooperation of the caregiver(s), who may also be living with HIV and coping with his or her own illness
- b) Identifying HIV early in life is even more critical in children than in adults given their fast disease progression and high mortality rates
- c) HIV testing in children less than 18 months of age or in those who are still breastfeeding is a one-time event
- d) The goal of diagnosing children as early as possible is to identify HIV-exposed and HIV-infected children and engage them in life-saving care

21) Which statements are true for isoniazid preventive therapy (IPT)?  
(select all that apply)

- a. The WHO clearly recommends that a course of IPT should be provided to all HIV-infected clients who are not currently on treatment for TB and who have a negative symptom screen
- b. It is important to delay initiation of ARV therapy in favour of IPT
- c. IPT is safe for most people
- d. All of the above

22) Adults learn the best when: (select all that apply)

- a) The information they are learning is relevant to their jobs
- b) Adults prefer a learning environment where they feel valued and respected for their experiences
- c) Adults are mainly auditory learners
- d) Adults appreciate having an opportunity to apply what they have learned as soon as possible
- e) All of the above

23) Which statements apply to the 5-step method of teaching clinical skills?  
(select all that apply)

- a) Provide an overview of the skill and how it is used in client care
- b) Demonstrate exactly how the skill is conducted without commentary
- c) Repeat the procedure, but describe each step
- d) Point out errors using judgmental and critical language
- e) Have participant “talk through the skill” by detailing each step
- f) Observe and provide feedback to the participant as he or she performs the skill

24) It is important for nurse mentors and educators to establish mentoring action plans with their mentees because:

- a) Action plans and work plans, can help prioritise, guide, and monitor work and learning in a specific area over time
- b) Having a comprehensive and measurable action plan will help ensure mentees learn key competencies related to HIV care and treatment after returning to their clinic

- c) Action plans can help nurse mentors and educators identify the key responsibilities of the role and optimise the support you provide to your mentees
- d) Action plans are a waste of time

25) Which statements are true for WHO clinical staging? (**select all that apply**)

- a) There is 1 staging system for adults and children
- b) Staging should be assessed at time of HIV diagnosis, prior to starting ART, and with each follow-up visit to assess response to ART and to monitor disease progression
- c) A full clinical assessment and medical history is NOT required for staging
- d) If a person has one or more conditions listed within the stage, they are categorized into that stage
- e) There are three points that should be kept in mind when staging clients: their recent clinical signs, their most recent clinical diagnosis if any made, and the level of activity of client

## **Appendix 1C: Tips on Mentoring and Coaching**

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### **What are the qualities of a good mentor?**

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- Strong knowledge, skills, and experience related to HIV care and treatment
- Professional
- Understands the importance of skill sharing and capacity building and is therefore willing to teach and to mentor
- Respects others
- Conscientious and trustworthy
- Accountable for her or his work; responsive to feedback
- Upholds confidentiality at all times
- Ethically sound decision making
- Leadership

### **Mentoring Do's and Don'ts**

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#### **Do:**

- Make mentees feel welcome and valued.
- Set shared achievable goals.
- Put yourself in the mentee's shoes.
- Ask questions that show interest in developing participants' skills.
- Monitor progress and give feedback frequently.
- Provide guidance, encouragement and support.

#### **Don't:**

- Appear unprepared.
- Be vague about your expectations.
- Confine the participant to passive roles.
- Leave feedback to the final assessment.
- Embarrass or humiliate participants.
- Accept behaviour that is unethical or unsafe.
- Judge if a participant does not know something.

## Appendix 1D: Listening and Learning Skills Checklist

Listening and Learning Skills Checklist		
Skill	Specific Strategies, Statements, Behaviours	(√)
<b>SKILL 1: Use helpful non-verbal communication</b>	1. Make eye contact	
	1. Face the person (sit next to him or her) and be relaxed and open with posture	
	2. Use good body language (nod, lean forward, etc.)	
	3. Smile	
	4. Do not look at your watch, the clock or anything other than the person	
	5. Avoid distracting gestures or movements	
<b>SKILL 2: Actively listen and show interest</b>	6. Other (specify)	
	7. Use gestures that show interest (nod and smile), use encouraging responses (such as “yes,” “okay” and “mm-hmm”).	
	8. Clarify to prevent misunderstanding	
	9. Summarise to review key points at any time during the session	
<b>SKILL 3: Ask open-ended questions</b>	10. Other (specify)	
	11. Use open-ended questions to get more information	
<b>SKILL 4: Reflect back what the person is saying</b>	12. Other (specify)	
	13. Reflect back or paraphrase	
	14. Encourage the person to discuss further (“Let’s talk about that some more”)	
<b>SKILL 5: Show empathy, not sympathy</b>	15. Other (specify)	
	16. Demonstrate empathy: show an understanding of how the person feels by naming the emotion expressed	
	17. Avoid sympathy	
<b>SKILL 6: Avoid judging words and provide positive, constructive feedback</b>	18. Other (specify)	
	19. Avoid judging words such as “bad,” “proper,” “right,” “wrong,” etc.	
	20. Use words that build confidence and give support (for example, praise what a mentee is doing right)	
<b>SKILL 7: Help set goals and summarise new concepts</b>	21. Other (specify)	
	22. Work with the mentee to come up with realistic “next steps” for their learning	
	23. Summarise the main points of the teaching exercise or mentoring session	
	24. Set next date for teaching or mentoring session	

Adapted from: World Health Organization. 2008. Prevention of Mother-to-Child Transmission of HIV Generic Training Package. Available at: [http://www.womenchildrenhiv.org/pdf/p03-pi/pi-60-00/Intro\\_PM\\_2-05.pdf](http://www.womenchildrenhiv.org/pdf/p03-pi/pi-60-00/Intro_PM_2-05.pdf)

## References and Resources

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<sup>1</sup> I-TECH. 2008. *Basics of Clinical Mentoring: Facilitator Guide*. International Training and Education Center on HIV.

<sup>2</sup> Knowles, M. S. et al. 1984. *Andragogy in Action. Applying Modern Principles of Adult Education*, San Francisco: Jossey Bass.

<sup>3</sup> Best Practice Resources. 2005. *Principles of Adult Learning Best Practice Resources*. Available at: [http://wcpds.wisc.edu/mandatedreporter/adult\\_learning.pdf](http://wcpds.wisc.edu/mandatedreporter/adult_learning.pdf)

<sup>4</sup> Zambia MoH. 2010. *National Training Package on Paediatric Provider-initiated HIV Testing & Counselling in Zambia*.

<sup>5</sup> World Health Organization. 2008. *Prevention of Mother-to-Child Transmission of HIV Generic Training Package*.

<sup>6</sup> ICAP. 2010. *Improving Retention, Adherence, and Psychosocial Support within PMTCT Services, Implementation Workshop Curriculum for Health Workers, Trainer's Manual*.



# **Module 2      HIV Transmission, Counselling, and Testing**

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**Session 2.1: Review of Key Competencies and Key Updates for HIV Transmission, Counseling, and Testing**

**Session 2.2: Teaching, Mentoring, and Skills Transfer**

**Session 2.3: Additional Learning Activities**

**Session 2.4: Action Planning**

## **Learning Objectives**

**After completing this module, participants will be able to:**

- Discuss the prevalence and impacts of HIV globally and in sub-Saharan Africa.
- Review the definitions of and differences between HIV and AIDS.
- Discuss modes of HIV transmission.
- List methods of primary HIV prevention.
- Discuss the meaning and benefits of provider-initiated testing and counselling.
- Practice the core competencies required by nurses for HIV testing and counselling services.
- Practice communicating feedback to mentees on HIV pre- and post-test counselling activities.
- Describe independent and supplemental learning activities for the module.
- Develop a measurable action plan to prioritise nurse mentoring and learning activities.

## **Session 2.1      Review of Key Competencies and Key Updates for HIV Transmission, Counseling, and Testing**

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### **Session Objectives**

**After completing this session, participants will be able to:**

- Discuss the prevalence and impacts of HIV globally, in sub-Saharan Africa, and in their own country setting.
- Review the definitions of and differences between HIV and AIDS.
- Discuss modes of HIV transmission.
- List methods of primary HIV prevention.
- Discuss the meaning and benefits of provider-initiated testing and counselling.

### **Key Facts about HIV**

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#### **Globally:<sup>1</sup>**

- Statistics for the end of 2009 indicate that around 33.3 million people are living with HIV, the virus that causes AIDS. Each year around 2.6 million more people become infected with HIV and 1.8 million die of AIDS.
- Although HIV and AIDS are found in all parts of the world, some areas are more afflicted than others. The worst affected region is sub-Saharan Africa, where in a few countries more than one in five adults is infected with HIV. The epidemic is spreading most rapidly in Eastern Europe and Central Asia, where the number of PLHIV increased by 54.2% between 2001 and 2009.

#### **In Africa<sup>2</sup>**

- Both HIV prevalence rates and the numbers of people dying from AIDS vary greatly between African countries.
- Sub-Saharan Africa is more heavily affected by HIV than any other region of the world. An estimated 22.5 million people are living with HIV in the region - around two thirds of the global total. In 2009 around 1.3 million people died from AIDS in sub-Saharan Africa and 1.8 million people became infected with HIV. Since the beginning of the epidemic 14.8 million children have lost one or both parents to HIV/AIDS.
- Youth and women are at the centre of the epidemic: 120,000 children between the ages of 0–14 years are living with HIV. Among young women, HIV prevalence is more than twice that of men of the same age.
- Women and girls make up almost 57% of adults living with HIV in sub-Saharan Africa. Overall, three quarters of all women with HIV worldwide live in that region.
- The social and economic consequences of the HIV epidemic are widely felt, not only in the health sector but also in education, industry,

agriculture, transport, human resources, and the economy in general. The HIV epidemic in sub-Saharan Africa continues to devastate communities, rolling back decades of development progress.

<b>Exercise 1: HIV Fact or Fiction: Game and large group discussion</b>	
<b>Purpose</b>	<ul style="list-style-type: none"> <li>To help participants review some of the basic facts related to HIV and AIDS</li> </ul>
<b>Instruction</b>	<p><b>Game and large group discussion:</b></p> <ol style="list-style-type: none"> <li>The trainer will begin the game by reading one of the “<b>Statements for True and False</b>” to the large group.</li> <li>As the trainer reads the statement out loud, a participant will be asked to offer a response of “TRUE” or “FALSE.”</li> <li>If someone responds “FALSE” to a statement, the participant will be invited to explain to the group why the statement is false and to correct the wrong information</li> </ol>

<b>Exercise 1: HIV Fact or Fiction: Game and large group discussion</b>	
<b>Statements for True and False</b>	
<ol style="list-style-type: none"> <li>HIV means Human Immune Virus. (<b>False:</b> Human Immunodeficiency Virus)</li> <li>HIV can be transmitted by all of the following: unprotected vaginal intercourse, breastfeeding, blood transfusion, insect bites, and use of contaminated syringes. (<b>False:</b> HIV is transmitted by unprotected vaginal intercourse, breastfeeding, blood transfusion, and use of contaminated syringes.)</li> <li>HIV is a rotavirus. (<b>False:</b> HIV is classified as a retrovirus, because it uses reverse transcriptase to convert RNA into DNA, which is sent into the cell's nucleus.)</li> <li>Red blood cells are the main targets for HIV inside the body. (<b>False:</b> Although HIV can infect a number of cells in the body, its main targets T-cells, also called CD4 positive (CD4+) cells.)</li> <li>HIV cannot be transmitted through contact with sweat and tears. (<b>True</b>)</li> <li>In most regions of the world, the group with the highest rate of HIV is men who have sex with men. (<b>False:</b> Although men who have sex with men have the highest rate of HIV infection in the United States, in most regions of the world the group with the highest rate is those who have heterosexual intercourse.)</li> <li>Tests can usually detect HIV antibodies in the blood 1–3 months after exposure to the virus, although in some cases it may take up to 6 months. (<b>True</b>)</li> <li>HIV lies dormant during the asymptomatic period. (<b>False:</b> Although people have no signs or symptoms of HIV disease during the asymptomatic period, the virus is multiplying and their immune systems are already suffering from the presence of HIV.)</li> <li>Nurses should only routinely test pregnant women and drug users for HIV. (<b>False:</b> Every client should be offered HIV testing as part of</li> </ol>	

routine health care.)

10. Having a CD4 count of 750 is an indicator of AIDS. (**False:** According to the WHO, the case definition of AIDS is having a CD4 count lower than 200).

## Overview of HIV and AIDS

**HIV** stands for **Human Immunodeficiency Virus:**

- **Human:** HIV, like all viruses, must enter other cells if it is to replicate and survive. HIV cannot stay alive outside the human body unless under laboratory conditions.
- **Immunodeficiency:** HIV damages an individual's immune system and unlike most viruses, and it cannot be destroyed by the body. After becoming infected, a person has HIV for the rest of his or her life.
- **Virus:** HIV is a "retrovirus." The genetic material of retroviruses is carried in the form of RNA rather than DNA. Retroviruses usually contain an enzyme reverse transcriptase that helps in converting RNA to DNA during the replication process.

Over time, HIV destroys the CD4 cells and the immune system becomes increasingly weakened. As the CD4 count falls, the immune system is unable to fight off infections that it would usually be able to fight off, even with the help of medication. Infections therefore take the opportunity of this weak immune system and are called opportunistic infections (OIs), infections that are caused by bacteria, fungi, or viruses that may not cause illness in people with normal immune systems.

**AIDS** stands for **Acquired Immune Deficiency Syndrome:**

- Occurs when an individual's CD4 count drops (<200/ml) or presents with an AIDS-defining event, regardless of the CD4 cell count.
- The individual is more likely to have opportunistic infections, such as PCP (pneumocystis pneumonia), Kaposi sarcoma, toxoplasmosis of brain, and wasting syndrome due to HIV.
- Also includes **Advanced HIV infection.**

### Other important definitions

- **HIV-infected** is when HIV has entered a person's body. A person who is HIV-infected might be very healthy and may not have any signs of illness for a long time. The time it takes for HIV to develop into AIDS varies from person to person. This time can be as long as 10 years for some people or as short as 1-2 years for others.
- **HIV-exposed** usually refers to an infant born to a mother infected with HIV and exposed to HIV during pregnancy, childbirth, or breast-feeding.

# **HIV Transmission<sup>3</sup>**

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## **Modes of HIV Transmission**

**HIV is most easily transmitted in these body fluids:**

- Semen
- Vaginal fluids
- Blood
- Birthing fluids
- Breast Milk

**HIV is not usually transmitted in these body fluids - unless there is also blood:**

- Urine
- Feces
- Saliva
- Sweat
- Mucous
- Pus

## **Ways HIV is transmitted**

### **Sexual transmission:**

- Unprotected sexual intercourse with an infected person– this includes male-female sex, male-male sex, and female-female sex.
- Direct contact with body fluid of infected person (blood, semen, vaginal secretions).
- Sexual transmission accounts for most HIV transmission worldwide.
- HIV transmission is more likely if:
  - One or both people have advanced HIV infection or AIDS.
  - One or both people have just recently been infected with HIV (because at this time there is a high level of virus concentration in the blood).
  - One or both people are eligible for ART and are not taking it or have poor adherence. Taking ART the right way every day lowers the chance the transmitting the virus (see box entitled **Future HIV Prevention Options with ARVs**).

### **Mother-to-child transmission (MTCT):**

- During pregnancy.
- During labour and delivery (most MTCT happens at this stage).
- During breastfeeding.
- Viral, maternal, obstetrical, foetal and infant-related factors all influence the risk of MTCT. More information on MTCT and preventing mother-to-child transmission is included in Module 5.

### **Blood-to-blood transmission:**

- Transfusion with infected blood.

- Direct contact with infected blood/body fluids.

**Remember:**

- Whether an actual infection occurs depends on the virus concentration. HIV concentration in blood may be very high, whereas its concentration in saliva is very low (10,000 times less). It is important to remember that contact with HIV, even in high concentrations, does not necessarily result in infection.
- To cause infection, the virus needs to get into the bloodstream. To reach the bloodstream, the virus has to get into a wound or on mucous membranes, or enter directly into the bloodstream (during blood transfusion or through contaminated syringes, or via the placenta).
- With increased or repeated exposure to the virus, there is an increased risk of becoming infected.

**Primary Prevention of HIV**

Prevention activities must be multi-faceted, such as the “ABC approach” to prevention of sexual transmission. **The ABCs of preventing sexual transmission include:**

- A: Abstinence — this approach works best for young people but may be appropriate for others to consider
- B: Be faithful to your partner
- C1: Consistent and correct condom use (male or female)
- C2: Circumcision — male circumcision for HIV negative men can reduce the risk of sexual HIV transmission from women living with HIV to HIV-negative men
- D: Delay sexual debut in young people
- E: Early and complete treatment of sexually transmitted infections (STIs)
- F: Free and open communication between partners about sex
- G: Get to know your HIV status

**Future HIV Prevention Options with ARVs**

**Treatment as Prevention<sup>4</sup>**

- **"Treatment as prevention"** is a term describing the use of ART to reduce the risk of passing HIV to others. The goal of “treatment as prevention” is to reduce a person’s viral load, making the person less infectious and less likely to pass on the virus.
  - Findings from an important study, known as HPTN 052, were released in 2011. The study assessed HIV transmission in nearly 900 discordant couples (where 1 partner is HIV-infected and the other is not).
  - The results showed that study participants who started ART earlier were much less likely to pass HIV to their HIV-negative partners than those who started ART later.
  - The study showed a 96% reduction in risk of HIV transmission when ART was initiated with a CD4 count of between 350 and 550 (earlier than current WHO guidelines).

## **PrEP<sup>567</sup>**

- **Pre-exposure prophylaxis, or PrEP**, is an experimental approach that uses ARVs to reduce the risk of HIV infection in HIV-negative people:
  - Results announced in 2011 by the Partners PrEP study demonstrated that HIV infection among discordant heterosexual couples can be prevented by taking PrEP daily. The study showed that taking a daily tablet of the ARV tenofovir (TDF) alone or in combination with another ARV called emtricitabine, also known as Truvada (TDF/FTC), was effective in preventing HIV infection in both men and women.
  - The iPrEx study results released in 2010 showed that in men and transgender women who have sex with men, taking a daily tablet containing TDF or TDF/FTC reduced the risk of acquiring HIV by 44%.
  - The CDC TDF2 study in Botswana found that a once-daily tablet containing TDF/FTC (Truvada) reduced the risk of acquiring HIV infection by roughly 63% among uninfected heterosexual men and women in the study.
- **PrEP is not yet recommended for use. More research studies are currently being carried out to determine how well PrEP works in other populations.**

### **Reasons why people may NOT practice the ABC's of prevention:**

- Think they are not vulnerable to HIV. *"It can't happen to me" or "I don't have sex often enough to contract HIV"*.
- Lack of access to accurate information in community and from media.
- Denial: *"My partner would never expose me to any risk"*.
- Fear of rejection from the partner.
- Embarrassment.
- Due to myths, such as condoms are only for sex workers or that married people do not use condoms.
- Provider's attitude is shameful and judgmental.
- Limited communication skills, cannot negotiate condom use with partner.

**An important part of a nurse's job is to educate their clients about risk-reduction practices, including condoms, and help clients learn how to protect themselves and their partners from HIV.**

## **Provider-Initiated HIV Testing and Counselling (PITC) and Opt-Out Testing<sup>8</sup>**

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- A strategy to maximize access to HIV testing is called **provider-initiated testing and counselling (PITC)**, meaning that it becomes the responsibility of the health care professional to advocate that each client is tested rather than waiting for the client to request testing.
- Opt-out testing means that all clients seen by a healthcare worker will receive diagnostic testing for HIV unless they request not to. This approach ensures that as many clients as possible know their HIV status.

- PITC should not be confused with mandatory testing, as clients maintain the right to opt out or decline testing.
- **Voluntary Counseling and Testing (VCT)**, in contrast, is client initiated HIV testing and counselling and is when a client chooses to seek out these services.
- HIV testing based solely on clinical assessment for likelihood of HIV infection is inaccurate and misses many clients who could be infected. In order to reach all the HIV positive people who urgently need care, it is important to offer the test routinely to all clients.
- HIV testing and counseling should therefore be fully integrated into routine clinical care and handled just like other investigations. This implies that the nurses can participate in the testing process at all levels: offering the test, providing the pre- and post-test information, giving the test result, discussing and initiating care for HIV-infected clients, and/or referring them for follow-up care.
- There are many challenges to ensuring quality counseling in the clinic setting, which nurses must work to overcome, such as providing adequate information before and after testing due to high volume of work, ensuring the confidentiality of client records, ensuring that all clients testing HIV positive are effectively referred for support, and ensuring the availability of testing kits and lab consumables.

## **Pre-test Counselling Session**

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Any client who is tested for HIV should receive a pre-test and post-test counseling session.

The purpose of the pre-test session is to discuss basic information about the risk of infection, the benefits of HIV testing, and the steps in the HIV testing procedure so clients can make an informed decision about being tested. Nurses can provide pre-test counselling in groups, or individually, depending on the circumstances. Individual sessions can be adapted to specifically meet the needs of one individual, while group pre-test sessions need to cover all of the topics.

### **Informed Consent**

As part of the session, the nurse must ensure that the elements of informed consent — benefits and risks of testing, right to confidentiality, right to decline testing — are included in the counselling process. Once the nurse has ascertained that the client has heard the pre-test information, has no more questions and no objections to testing, the nurse should let the client know that as part of today's exam, blood will be taken by finger-prick or other means (according to national guidelines, testing algorithms, and test kit manufacturer's instructions) for the HIV test.

### **What to do if testing is declined:**

Clients are entitled to decline HIV testing for themselves or for their children. Although HIV testing is strongly recommended, the client's



decision should be respected. If the HIV test is declined, clients should be provided with additional, individual counselling to:

- Further explore concerns about testing.
- Clarify the importance of knowing his/her status to provide the best healthcare.
- Encourage the client to reconsider testing.

Exploratory questions to consider include:

- *Would you be willing to share your reasons for deciding not to be tested today?*
- *What do you know about the benefits of knowing your HIV status?*
- *What would have to change before you agreed to have the test?*

Continue with pre-test counselling. If HIV testing is still declined:

- Let the client know your door is open, and that she or he can decide to be tested anytime.
- If available, provide the client with a take home flyer or educational information.
- Arrange for further individual (or couple) pre-test counselling at the next visit.

## **Overview of Post-test Counselling**

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- Post-test counseling should be offered to clients in all cases, regardless of the test result. It is desirable that the same provider that conducted the pre-test counseling informs the client about the test results and provides post-test counseling.
- Counseling messages will also be different based on the test results: negative, indeterminate, or positive. It is important to make sure that the client understands the meaning of the test result, risk factors, and ways to prevent HIV.

Post-test counselling always includes the following:

- Delivery of results, discussion, and explanation of the meaning of the results.
- Attention to the client's ability to process and cope with the information provided.
- Assessment of sources of caregiver support system, identifying potential sources of social support, referring and providing support.
- Discussion of post-test follow-up, which will vary according to the results of the test, the age of the client, and the specific needs of the client and family.
- Discussion of the ongoing care and treatment needs of the client.

The key points and some suggested dialogue for both the pre- and post-test sessions are listed in *Appendix 2A: Sample Pre- and Post- Test Counselling Scripts* and *Appendix 2B: Pre- and Post- Test Counselling Checklists*.

## Overview of HIV Testing

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- Presence of HIV infection in a person can be confirmed through the HIV tests. Several types of HIV diagnostic tests have been developed. The affordability and availability of these tests vary by country.
- Diagnostic tests fall into 2 main categories:
  - Antibody tests: HIV rapid tests, HIV enzyme-linked immunosorbent assay (ELISA; also called EIA {enzyme immunoassay}), and Western blot and;
  - Virologic tests: HIV DNA polymerase chain reaction (PCR) assays, RNA assays, p24 antigen assays, and viral culture.
- Once HIV infection is diagnosed, the stage of infection can be established both clinically and immunologically. Additional information on clinical staging of HIV is found in Module 3.

## Methods of HIV Testing

Common types of HIV diagnostic tests are described below and are listed in Table 2.1

### HIV Antibody Tests

These tests detect antibodies to HIV and are classified as rapid and non-rapid.

#### Non-rapid Tests:

- ELISA: These are confirmatory tests used in the detection of HIV antibodies in whole blood, serum, or plasma. They are easy to perform but require strict adherence to procedures.
- ELISAs have the following characteristics: good sensitivity and specificity, adaptable for testing many samples at a time, do not require use of radioactive substances.
- Western Blot (WB): It is the most widely accepted antibody confirmatory test and it is referred to as a gold standard in HIV testing. WB has high specificity due to its ability to separate and concentrate all the antigens in their specific bands, thus enhancing antigen/antibody binding to specific sites on the strip. It is easy to perform the test but difficult to interpret the results.

#### Rapid Tests

- These are simple and easy to perform tests, which do not require sophisticated equipment. Rapid tests are the most commonly used HIV tests in health facilities. Results are read within a specified time, usually within 30 minutes. Test samples can be run individually. All rapid tests use whole blood, serum, or plasma, but preferably serum or plasma is better due to higher concentration of the virus in them.

### HIV Viral Test

These are tests that detect the presence of HIV. There are 2 types:

- PCR: Detects RNA/DNA of HIV even before antibodies are produced.

- Viral Culture: HIV can be isolated by culture in highly sophisticated laboratories.

**Table 2.1: Common HIV tests**

Antibody	Virologic
HIV Rapid Test	HIV-1 DNA PCR
HIV ELISA (also called EIA)	HIV-1 RNA PCR (viral load)
Western Blot	Ultrasensitive p24 antigen assay test
	HIV culture

### Interpretation of Results for Antibody Tests

A positive antibody test result means:

- The body has produced antibodies against HIV. This does not mean that the infected person will either remain healthy or has AIDS. It definitely means that this person is infectious. Studies show that the virus can be detected in almost all persons who have antibodies.

A negative antibody test result means:

- HIV antibodies were not detected in the blood.
- If it has been more than two months since the last episode of risky behavior, most likely the person is not infected with HIV. Antibodies are produced on average within 2-3 months from the time of getting HIV. This period is often called the “window” period. During this time, the test result may be negative, while the person is actually infected. Therefore, it is important to repeat the test after this window period.

The **window period** is the period when one is HIV infected but the body has not produced enough antibodies to be detected by tests based on antibodies. This period ranges from two weeks to three months (12 weeks) after infection. If the client thinks that he/she may have been exposed to HIV in the past three months, advise him/her to return for a second HIV test. Also, the client should abstain from sex or use condoms until after he/she receives the results from the second HIV test.

### The 3 “C’s” of HIV Testing

The principles for conducting an HIV test for individuals require that:

- Test results are confidential.
- Testing is accompanied by counselling.
- Testing can only be conducted with informed consent.
- \*Informed consent means that (1) The client has enough information to understand what they are agreeing to and what the implications are; and (2) The counsellor is honest and objective and allows the client to make his/her own decision regardless of the counsellor’s opinion or preference.

## Session 2.2 Teaching, Mentoring, and Skills Transfer

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### Session Objectives

**After completing this session, participants will be able to:**

- Practice the core competencies required by nurses for HIV testing and counselling services.
- Practice communicating feedback to mentees on HIV pre- and post-test counselling activities.

### Background for the Evolving Case Study

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**Welcome to (insert the name of your case study community)**

(Insert the name of your case study community) is a town of about (use desired population base) people located about 75 km from (insert name of capital city). This community has many families with small children, as well as extended families with a significant number of elders.

There is a small government health clinic in (insert name of large town or city #2) that provides general care, VCT, and antiretroviral treatment (ART) to HIV-infected adults, adolescents, and children. The clinic is staffed by 1 doctor, 3 nurses, and 2 assistants. Across town, there is a small ANC clinic for women and infants, but it is open only when the traveling nurse midwife can visit – usually about once a week (if it's not the rainy season). There is no emergency care available except for what can be provided by the 2 clinics. Severe medical problems are transferred to \_\_\_\_\_ (town #2), where there is a larger clinic, or to the capital city, where there are more comprehensive facilities.

The concept of preventive health care, or even regular health care, is not well established among the population. Many families utilize the wisdom of elders or traditional medicine handed down through the generations. The major health problem, as in many other African communities, is infectious disease: HIV, TB, and malaria. There are the 'usual' problems of diarrhoea and dehydration, especially among children and the elders, malnutrition, failure to thrive, and various parasite infestations. The problems generated by increasing HIV and TB infection are reaching dangerous levels. There seems to be not only lack of clinic staff, materials, and drug supply but also a significant knowledge gap – and not only among the few providers in town but also among the population.

#### **Meet the L\_\_ family**

The L\_\_ family resides close to the main clinic in your town. S\_\_, is a 50-year old unemployed woman, who has two children: her 21-year-old son M\_\_ and 22-year-old daughter T\_\_. M\_\_ is single, lives in town, and has a job working in a small bar. T\_\_ is also unmarried and still lives with her mother. T\_\_ only has a secondary school education and sometimes earns money by watching people's children. S\_\_'s 36-year old sister, N\_\_, and her 57-year-old husband, V\_\_, also live with her, in a small, sparsely furnished 2-bedroom home with very basic amenities and poor sanitation. Both N\_\_ and V\_\_ are HIV-infected.

**Exercise 2: Practice HIV Counselling: Role play and large group discussion**

<b>Purpose</b>	<ul style="list-style-type: none"> <li>To provide participants with an opportunity to gain experience with HIV counselling in addition to practicing their feedback and mentoring skills with other nurses</li> </ul>
<b>Instruction</b>	<p><b>Part 1: Role play</b></p> <ol style="list-style-type: none"> <li>The trainer will begin the exercise by asking 3 participants to role play the 1<sup>st</sup> case study in front of the large group.</li> <li>Participants will be asked to:             <ul style="list-style-type: none"> <li>Identify a “mentee”, “client”, and a “nurse mentor.”</li> <li>Using the 1<sup>st</sup> case study, the “mentee” should initiate the HIV counselling session as they would in the clinic setting. The “mentee” and “client” have about 5 minutes for their session.</li> <li>The “nurse mentor” should observe the “mentee” during the counselling session. “Nurse mentors” should also pay close attention to how the “mentee” is interacting with her “client” and the different communication techniques she employs to discuss sensitive issues.</li> <li>The “mentee” can refer to <i>Appendix 2A: Sample Pre- and Post- Test Counselling Scripts</i> and <i>Appendix 2B: Pre- and Post- Test Counselling Checklists</i> as guidance during this exercise.</li> </ul> </li> <li>After five minutes, the “nurse mentor” should provide feedback on the session to the “mentee”, as she would in the clinic setting. The “nurse mentors” should:             <ul style="list-style-type: none"> <li>Use the Listening and Learning Skills Checklist from Module 1 as a guide for their feedback session.</li> <li>Emphasise the positive aspects of the counselling session.</li> <li>Offer specific and constructive suggestions to improve what didn’t work so well.</li> </ul> </li> <li>Repeat this exercise using the remaining 2 case studies so that other participants will have an opportunity to practise each role.</li> </ol> <p><b>Part 2: Large group discussion</b></p> <ol style="list-style-type: none"> <li>Participants will be encouraged to discuss the counselling and feedback sessions, including what went well and what could have been different.</li> </ol>

**Exercise 2: Practice HIV Counselling: Role play and large group discussion**

**Case Study 1:**  
 S \_\_\_\_, is a 50-year-old woman, who lives in (insert name of your case study)

community and is admitted to your clinic today. S\_\_\_ reports a 1-month history of poor appetite, diarrhea, and weight loss. When you suggest a routine HIV test, she says to you *‘I’m too old to have HIV.’* After you speak with S\_\_\_ a bit more, she finally agrees to the HIV test, and after 45 minutes, the test comes back positive. How do you counsel S\_\_\_, once you have the results of the test?

**Case Study 2:**

Part A:

S\_\_\_’s son, M\_\_\_, is a 21-year-old male who lives on his own and is seen at your clinic by you and your nurse mentor. He reports signs and symptoms of suspected gonorrhoea. M\_\_\_ confides in you that he has a male partner who he sees on the weekends but is scared of his mother and the rest of his family finding out. He has never had a HIV test before and admits he only uses condoms once in awhile, because he doesn’t like the way they feel during sex. How do you counsel M\_\_\_ about potential HIV testing?

Part B:

After an hour, M\_\_\_’s test results come back from the lab, and the result is negative. By this time, M\_\_\_ appears very anxious and worried. How do you counsel M\_\_\_?

**Case Study 3:**

As a mentee, you are asked by your nurse mentor to provide HIV pre-test counselling to a small group of women sitting in the waiting area of your clinic. Some of the women seem very tired, and others look irritated from having to wait around so long. How do you proceed with the group?

## Session 2.3

## Additional Learning Activities

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### Session Objective

**After completing this session, participants will be able to:**

- Describe independent and supplemental learning activities for the module.

### Independent Learning Activities

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**Independent learning**, often referred to as self-directed learning, involves participants taking the initiative in recognising their own learning requirements and undertaking activities to meet them. As nurse mentors and educators, participants should take responsibility for:

- Identifying their own learning needs.
- Searching for relevant information and gaining knowledge on their own.
- Learning on their own with minimum supervision.
- Actively seeking ways to solve their own problems and difficulties.
- Assessing their own learning to see if their needs are met.

Independent learning is a critical part of adult learning, which was introduced in Module 1. Remember that research suggests that adults like to learn:

- Doing activities they want to do.
- Having opportunities to reflect on what they have learned.
- Working at their own pace.
- Having a choice in where and when they work.
- Working in the company of others who are engaged in a similar process.

Some examples independent learning during this training course might include:

- Literature review.
- Problem-solving exercises in small groups.
- Participant-led presentations and trainings.
- Written work, in the form of short papers and responses to specific questions.

Nurse mentors and educators can use similar independent learning activities with mentees. Some people, however, may have resistance or dislike independent learning because of:

- Feeling of threat and insecurity.
- Feeling “cheated” with less “teaching”.
- Lack of confidence of success.
- Lack of appropriate prior experience.
- Lack of independent learning skills.

- Habits and preferred ways to learn.

Nurse mentors and educators can reduce these barriers by:

- Giving specific instructions (explain WHAT, HOW, and WHEN).
- Ensuring a reasonable workload.
- Ensuring availability of help and feedback on progress.
- Developing a friendly and productive relationship with our mentees.
- Ensuring availability of the needed facilities and resources.
- Establishing assessments that emphasise process as well as outcomes.

### **Suggestions for independent learning activities**

For the purposes of this training, participants will be offered “extension” or supplemental work to complete individually or in small groups.

Participants should work together as often as possible, since peer support helps to ensure motivation and task completion.

Examples of supplemental learning activities for this module include the following:

Work in small groups and review the following document:

- UNAIDS, WHO HIV/AIDS Programme, (2007). *Guidance on Provider-Initiated HIV Testing and Counselling in Health Facilities*. World Health Organization.

Based on your reading, answer the following questions:

- *What are the challenges of implementing PITC in your clinic setting? What are some potential solutions to these challenges?*
- *How would you monitor and evaluate a PITC approach in your clinic?*
- *What are some ways to improve current systems for HIV testing and counselling in your clinic?*

Facilitate a lunchtime discussion about the benefits and challenges of PITC with fellow healthcare workers, and present a summary of your experience to the large group at the next training session.



## Session 2.4 Action Planning

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### Session Objective

**After completing this session, participants will be able to:**

- Develop a measurable action plan to prioritise nurse mentoring and learning activities.

### Overview of Action Plans

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- Action plans or work plans, can help prioritise, guide, and monitor work in a specific area over time.
- A good action plan sets the stage for achieving the goal – it maps out the work process with a detailed schedule of key activities needed to accomplish the goal.
- Action plans can assist nurse mentors and educators with providing follow-up and site-level support to their mentees after the training.
- Action planning can help nurse mentors and educators identify the key learning goals for the mentee, appropriate teaching and learning strategies to achieve those goals, and optimise the support they provide to their mentees.

### Key Steps to Developing a Mentoring Action Plan

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Having a comprehensive and measurable Mentoring Action Plan will help ensure that participants are able to implement what they have learned in training and are able to mentor and educate nurses performing key competencies related to HIV care and treatment after returning to their clinic. Here are some key steps for developing a Mentoring Action Plan:

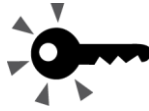
- Meet with your mentee and discuss their individual learning gaps or problems, as well as their strengths. Nurse mentors and educators can review and incorporate questions from *Appendix 2E: Mentoring Orientation Guide* to help them build rapport and frame the initial meeting with their mentee.
- Develop a measurable action plan to prioritise activities that address the mentee's learning needs. Each action item should have a timeline, should document any resources that are needed, as well as describe how the activities will be evaluated.
- Remember to present the Mentoring Action Plan to facility managers and regularly revisit the Mentoring Action Plan to see what progress has been made and where adjustments are needed.

#### **Exercise 3: Creating Mentoring Action Plans: Small group work and large group discussion**

<b>Purpose</b>	<ul style="list-style-type: none"><li>• To develop measurable action plan to prioritise nurse mentoring and learning activities with the mentee</li></ul>
<b>Instruction</b>	<b>Part 1: Small Group Work</b> 1. The trainer will begin the exercise by breaking

	<p>participants into pairs.</p> <ol style="list-style-type: none"> <li>2. Participants should then assign one person to the role of a “nurse mentor” and the other to a “mentee”.</li> <li>3. Participants should refer to <i>Appendix 2D: Mentoring Action Plan</i>. One of the templates in Appendix 2D is partially completed with some suggested responses. Participants can use this as an example to help them with the exercise.</li> <li>4. Participants should pretend that the “nurse mentor” and “mentee” are meeting for their first mentoring session. The “nurse mentors” should review and incorporate questions from <i>Appendix 2E: Mentoring Orientation Guide</i> to help them build rapport and frame the initial meeting with the “mentees”. There will not be sufficient time to ask all of the questions in the Orientation Guide, but “nurse mentors” should use a few of these questions and discussion topics to fit their own style and approach.</li> <li>5. Pairs should continue their role play by discussing the roles and responsibilities of the mentor and mentee.</li> <li>6. The “nurse mentor” and “mentee” should then identify and discuss 1-3 learning goals related to this module. The “nurse mentor” can ask the “mentee”: <ul style="list-style-type: none"> <li>• <i>How do you think I, as your nurse mentor, can help you to build your technical or clinical skills related to HIV testing and counseling?</i></li> <li>• <i>What are your strengths and weaknesses on this particular topic area?</i></li> </ul> </li> <li>7. “Nurse mentors” should create an action plan with the “mentee”, by creating a list of 1-3 learning activities (or next steps) to achieve each of the mentee’s goals. Remember, the most successful plans are those that have a range of learning activities that encourage: <ul style="list-style-type: none"> <li>• Learning by doing (e.g. skills practice, special project)</li> <li>• Learning from others (e.g., shadowing)</li> <li>• Learning from challenging experiences or “stretch assignments” (e.g. project outside of the clinic or their department, a project that requires leadership role)</li> </ul> </li> <li>8. The pairs should create a timeline and determine how many hours, days, or weeks it will take to complete each learning activity.</li> <li>9. The “nurse mentor” should establish a meeting schedule to support the “mentee” with their work: <ul style="list-style-type: none"> <li>• Where?</li> <li>• When?</li> <li>• How long?</li> </ul> </li> </ol>
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	<ul style="list-style-type: none"><li>• Frequency?</li><li>• Who will initiate meetings?</li><li>• How will communication/feedback be maintained between the meetings?</li></ul> <p>10. The pairs should determine how the “mentee’s” tasks and learning activities will be evaluated.</p> <ul style="list-style-type: none"><li>• <i>How will we know when your learning goals are achieved (e.g. test, presentation, case review)?</i></li></ul> <p>11. Participants should input their information into the Mentoring Action Plan.</p> <p><b>Part 2: Presentations and Large Group Discussion</b></p> <p>12. Participants will be invited to present their Mentoring Action Plan to the large group.</p>
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## Module 2: Key Points

- **HIV** stands for **Human Immunodeficiency Virus**. HIV damages an individual's immune system and unlike most viruses, and it cannot be destroyed by the body. After becoming infected, a person has HIV for the rest of his or her life.
- **AIDS** stands for **Acquired Immune Deficiency Syndrome** and occurs when an individual's CD4 count drops (<200/ml) and the body is no longer able to fight off infection. The individual is more likely to have opportunistic infections, such as PCP (pneumocystis pneumonia).
- Opt-out testing means that all clients seen by a healthcare worker will receive diagnostic testing for HIV unless they request not to. This approach ensures that as many clients as possible know their HIV status.
- Another strategy to maximize access to HIV testing is called provider-initiated testing and counselling (PITC), meaning that it becomes the responsibility of the health care professional to advocate that each client is tested rather than waiting for the client to request testing.
- The main objectives of pre-test counseling are to: assess the client's individual risk of HIV, identify and negotiate safer behaviors and develop an individual plan for risk reduction, help the client make a decision about whether or not to get tested, and explain the test and clarify its meaning.
- If a client decides to get tested, the provider conducting the test must obtain informed consent from the client. Clients who want to be tested do have the right to refuse pre-test counseling.
- Post-testing counseling should be offered to clients in all cases, regardless of the test result. It is desirable that the same provider that conducted the pre-test counseling informs the client about the test results and provides post-test counseling.
- Counseling messages will be different based on the test results: negative, indeterminate, or positive. It is important to make sure that the client understands the meaning of the test result, risk factors, and ways to prevent HIV.
- **Independent learning**, often referred to as self-directed learning, involves participants taking the initiative in recognising their own learning requirements and undertaking activities to meet them.
- Having a comprehensive and measurable action plan will help ensure that participants are able to mentor and educate nurses performing key competencies related to HIV care and treatment after returning to their clinic.

## Appendix 2A: Sample Pre-Test and Post-Test Counselling Scripts

**Key points for pre-test counselling session (can be adapted for individuals or groups)**

<b>Objective</b>	<b>Script</b>
<b>Introduce yourself and the session.</b>	<ul style="list-style-type: none"> <li>• Introduce yourself.</li> <li>• <i>I am _____ (name/occupation) and will be talking with you about HIV testing.</i></li> <li>• <i>I want you to feel comfortable asking questions today so you have the information you need.</i></li> </ul>
<b>Ask what the person/group may already know about HIV.</b>	<ul style="list-style-type: none"> <li>• <i>Many of us know some things about HIV and many of us are living with HIV, caring for someone with HIV, or know someone living with HIV.</i></li> <li>• <i>Do you know what HIV is?</i></li> <li>• <i>What is AIDS?</i></li> <li>• <i>How is HIV passed from one person to another?</i></li> <li>• <i>How can HIV be prevented?</i></li> <li>• <i>Can you/someone tell us what they know about care and treatment for people with HIV?</i></li> <li>• Clarify and fill in the gaps to make sure that participants have a basic understanding of HIV.</li> </ul>
<b>Discuss the reasons why HIV testing and counselling is recommended for all people.</b>	<ul style="list-style-type: none"> <li>• <i>HIV testing is recommended for all people as a normal and routine part of their health care.</i></li> <li>• <i>Our health facility offers HIV testing to all clients who have never previously tested as well as to those who have tested HIV negative more than 3 months ago.</i></li> </ul>
<b>Discuss the benefits of testing and counselling.</b>	<ul style="list-style-type: none"> <li>• <i>It's important to know your HIV status in order to provide you with the best care available. There is no cure for HIV, but HIV treatment is available. Treatment lowers the risk of getting sick or dying from HIV, and many people on treatment are living long, healthy lives.</i></li> <li>• <i>Knowing your HIV status helps you and your family to plan your future together. For many people knowing their status relieves them of the worry that comes from uncertainty.</i></li> </ul>
<b>Discuss confidentiality.</b>	<ul style="list-style-type: none"> <li>• <i>The result of the HIV test is confidential; it is shared only with those professional healthcare workers who need this information in order to care for your child.</i></li> <li>• <i>When your result is ready, I'll talk with you by yourself, in private, to give you the result and explain what the result means. We will also talk about and arrange for the care that you might need. I will answer any questions you have.</i></li> </ul>
<b>Describe how the test is done (adapt according to national guidelines).</b>	<ul style="list-style-type: none"> <li>• <i>This test is called a (insert name e.g. HIV rapid test). It is a simple test that can be done with (insert method e.g. prick of a finger).</i></li> <li>• <i>The results of the test are ready in (insert time, e.g. less than an hour).</i></li> </ul>

Objective	Script
<b>Describe the meaning of test results.</b>	<ul style="list-style-type: none"> <li>• <i>Let's talk about what the test result may mean (adapt according to national guidelines):</i></li> <li>• <i>A positive HIV test usually means that the person is HIV-infected.</i></li> <li>• <i>A negative HIV test means that the person is not HIV-infected.</i></li> <li>• <i>The "window period" is the period when a person is HIV infected but the body has not produced enough antibodies to be detected by tests. This period ranges from two weeks to three months (12 weeks) after infection. If you that you may have been exposed to HIV in the past three months, you should return for a second HIV test. Also, it's important to abstain from sex or use condoms until after you receive the results from the second HIV test.</i></li> </ul>
<b>Discuss ABC's of HIV prevention and availability of care and treatment.</b>	<ul style="list-style-type: none"> <li>• <i>Discuss implications of staying HIV negative.</i></li> <li>• <i>Remember: HIV treatment works very well. In most cases, HIV treatment means that PLHIV can lead long and healthy lives.</i></li> <li>• <i>If you have HIV, we will arrange for you to receive the support, care and treatment that you need.</i></li> <li>• <i>Treatment for HIV is available and is free for adults and children.</i></li> <li>• <i>We will also help you to learn about HIV and HIV treatment, care for yourself, develop a follow-up plan, and access ongoing support.</i></li> </ul>
<b>Discuss the right to decline the test.</b>	<ul style="list-style-type: none"> <li>• <i>HIV testing is strongly recommended so all people with HIV can access life-saving treatment. However, you have the right to tell us that you do not want to be tested.</i></li> <li>• <i>If you say no to the test, we will still take care of you. We will also try to address your concerns about HIV testing. However, if you have HIV and your doctor does not know about it, your health may be endangered.</i></li> </ul>
<b>Close the session.</b>	<ul style="list-style-type: none"> <li>• <i>Do you have any questions or concerns?</i></li> <li>• <i>To review, HIV testing is a regular part of your health care. As part of your visit today, we will test you for HIV.</i></li> <li>• <i>(For groups) If you have a question or information you would like to share privately, you will be able to do so before the test is conducted.</i></li> </ul>

Borrowed and adapted from: Republic of Zambia, Ministry of Health. 2010. *National Training Package on Provider-Initiated Paediatric HIV Testing & Counselling in Zambia.*

## Post-test Counselling for Negative or Indeterminate Test

Objective	Script
<p><b>Introduce yourself and the session.</b></p>	<ul style="list-style-type: none"> <li>• Introduce yourself.</li> <li>• <i>I am _____ (name/occupation) and will be talking with you about your HIV test results.</i></li> <li>• <i>I want you to feel comfortable asking questions today so you have the information you need.</i></li> </ul>
<p><b>Provide the test result. Discuss the meaning of the test result for the client.</b></p>	<p><b>For negative result:</b></p> <ul style="list-style-type: none"> <li>• Prepare yourself for the result-giving by: checking you have the right result, making sure you understand what the results mean, making sure you have enough time.</li> <li>• <i>Your HIV test result is negative. The fact that you have a negative HIV test means that you do not have HIV at this time.</i></li> <li>• If you think that the client may have been exposed to HIV in the past 3 months, advise him/her to return for a second HIV test. Also, the client should abstain from sex or use condoms until after he/she receives the results from the second HIV test.</li> <li>• <i>You may need to return for a repeat test in 3 months (for antibody test).</i></li> <li>• <i>A negative test result does not mean your partner is negative for HIV.</i></li> <li>• <i>It may mean that you have not yet been infected.</i></li> </ul> <p><b>For indeterminate result:</b></p> <ul style="list-style-type: none"> <li>• <i>It is not possible to confirm your test results at this time. You will need to return for a repeat test in 3 months (or adapt according to national guidelines).</i></li> </ul>
<p><b>Review ABC's of HIV prevention, including condom demonstration, if necessary.</b></p>	<ul style="list-style-type: none"> <li>• <i>You can still get infected if exposed to HIV.</i></li> <li>• <i>What are you doing to reduce your chances of getting HIV infection?</i></li> <li>• Discuss ABC's of HIV prevention, like abstinence, being faithful to one sexual partner, and using condoms.</li> </ul>
<p><b>Assess client's understanding of the results and the follow-up plan. Address questions or concerns.</b></p>	<ul style="list-style-type: none"> <li>• <i>I would like to make sure I covered everything with you and explained things the right way. Can you explain to me what we just talked about?</i></li> <li>• Ask client to summarise the following (as appropriate to circumstances):             <ul style="list-style-type: none"> <li>• Meaning of the test result</li> <li>• Repeat HIV testing (if required)</li> <li>• HIV prevention</li> <li>• Partner testing</li> <li>• Follow-up appointments</li> </ul> </li> <li>• <i>Is there anything else you'd like to discuss?</i></li> </ul>

Borrowed and adapted from: Republic of Zambia, Ministry of Health. 2010. *National Training Package on Provider-Initiated Paediatric HIV Testing & Counselling in Zambia*.

## Post-test Counselling for Positive HIV Test

Objective	Content
<p><b>Introduce yourself and the session.</b></p>	<ul style="list-style-type: none"> <li>• Introduce yourself.</li> <li>• <i>I am _____ (name/occupation) and will be talking with you about your HIV test results.</i></li> <li>• <i>I want you to feel comfortable asking questions today so you have the information you need.</i></li> </ul>
<p><b>Provide test result.</b></p> <ul style="list-style-type: none"> <li>• <i>Discuss the meaning of test result.</i></li> <li>• <i>Offer support and allow time for processing the information and discussing feelings.</i></li> <li>• <i>Ensure understanding that HIV is a treatable, lifelong disease.</i></li> <li>• <i>Discuss availability of care and treatment services.</i></li> <li>• <i>Review ABC's of HIV prevention, including condom demonstration if necessary.</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Prepare yourself for the result-giving by: checking you have the right result, making sure you understand what the results mean, making sure you have enough time.</i></li> <li>• <i>Your HIV test result is positive. The fact that you have a positive HIV test means that you have HIV.</i></li> <li>• <i>Your client information will only be accessed by the health care team in order to make clinical decisions (shared confidentiality).</i></li> <li>• <i>We have plenty of time to discuss this result. Let's discuss what you understand about this and how you are feeling. Allow the client time to consider the results, discuss feelings, and ask questions.</i></li> <li>• <i>We will need to do another test to make sure that the result is the same (adapt based on national guidelines).</i></li> <li>• <i>HIV is a lifelong disease. Although we can't cure HIV, treatment is available and it works very well. Today, many people with HIV live healthy, long lives.</i></li> <li>• <i>Care, treatment, and support are available. We'll arrange care for you and others in your family (as needed) before you leave today.</i></li> <li>• <i>It is very important that your partner(s) be tested for HIV as soon as possible. You can pass the virus to another person.</i></li> <li>• <i>What will you do to reduce your chances of transmitting HIV to your partner(s)?</i></li> <li>• <i>Discuss ABC's of HIV prevention strategies like abstinence, being faithful to one infected sexual partner, and using condoms.</i></li> </ul>
<p><b>Find out more about the support system and provide support for the client.</b></p>	<ul style="list-style-type: none"> <li>• <i>How are you coping right now?</i></li> <li>• <i>Are your friends or family members aware of your HIV status? Or, if newly diagnosed: Are there friends or family members you can tell about your HIV status?</i></li> <li>• <i>Do you have any support at home? Do you have someone who you can talk to about your HIV status?</i></li> <li>• <i>Where are you going after this visit? Assess need for community services or support and provide information/referrals and/or follow-up counselling.</i></li> <li>• <i>At the end of our talk, we can discuss the next steps for your care.</i></li> </ul>



Objective	Content
<p><b>Discuss meaning of test for other family members and partner(s).</b></p>	<ul style="list-style-type: none"> <li>• <i>Do you have a husband, partner or partners with whom you have a sexual relationship? Has your partner had an HIV test? Do you feel you could discuss your status and HIV testing with your partner(s)?</i></li> <li>• <i>Until your partner is tested you should use condoms. If s/he tests HIV-negative, you should continue to use condoms to ensure s/he stays HIV-negative. Is it possible for you and your partner to only have sex with each other? Discuss the importance of using condoms.</i></li> <li>• <i>Let's discuss whether or not there are other members of your family who would benefit from having an HIV test.</i></li> </ul>
<p><b>Make appropriate referrals for HIV care and treatment for the child, the mother, and any other family members as needed. Explain what to expect at the visits.</b></p>	<ul style="list-style-type: none"> <li>• <i>For your care, you will go to the (name of clinic).</i></li> <li>• <i>At the clinic, they will evaluate you, explain the process of decision-making regarding treatment, discuss options with you and answer any questions you have.</i></li> <li>• <b>Explain:</b> <ul style="list-style-type: none"> <li>• <i>Date, place, time of appointments</i></li> <li>• <i>How to change the appointments</i></li> <li>• <i>What to do if the client is ill</i></li> <li>• <i>Importance of engaging in care and attending all appointments</i></li> </ul> </li> </ul>
<p><b>Assess client's understanding of the results and the follow-up plan. Address questions or concerns.</b></p>	<ul style="list-style-type: none"> <li>• <i>I would like to make sure I covered everything with you and explained things the right way. Can you explain to me what we just talked about?</i></li> <li>• <i>Ask client to summarise the following (as appropriate to circumstances):</i> <ul style="list-style-type: none"> <li>• <i>Meaning of the test result</i></li> <li>• <i>Confirmatory HIV testing (if required)</i></li> <li>• <i>Partner testing</i></li> <li>• <i>ABC's of HIV prevention</i></li> <li>• <i>Follow-up care and appointments</i></li> </ul> </li> <li>• <i>Is there anything else you'd like to discuss?</i></li> </ul>

## Appendix 2B: Pre- and Post- Test Counselling Checklists

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These pre- and post-test counseling checklists were developed to support a range of providers (trained counselors, lay counselors, peer educators, expert clients, doctors, nurses, pharmacists, community health workers, and others) who work with people living with HIV and their families. Pre- and post-HIV test counseling can help clients understand the importance of HIV testing, the HIV testing process, the meaning of their test results, and key steps to ensure their own health. The pre- and post-test counseling checklists should be adapted to reflect national HIV testing and counseling guidelines, as well as the specific clinic, community, and cultural contexts in which they are used. It may be helpful to translate the checklists into the local language.

**There are 3 checklists: 1 on pre-test counselling for adults, 1 on post-test counseling for HIV-negative adults, and 1 on post-test counseling for HIV-positive adults.** Pre-test counseling may be conducted individually or in group sessions, depending on national and clinic protocols. Post-test counseling should always be conducted in an individual setting, ensuring the client's privacy and confidentiality.

Key information from pre- and post-test sessions should be recorded on the checklists and kept in the client's file. Information from pre- and post-test sessions is a very important part of quality, continuous care and client-centered counseling. If individual client files are not maintained at the clinic, these checklists can also be used as job aides to guide providers when conducting pre- and post-test counseling.

**Basic information:** Write down the client's name and file number. Be sure to sign and date the form at the end of each session and then put the completed form in the client's file.

**Key topics:** Lists of key topics to cover during pre- and post-test counseling, and a suggested flow of topics, are provided. These topic lists should be used as a guide to pre- and post-test counseling sessions, and adapted as needed according to the client's specific situation and needs. Once a specific topic is covered and discussed with the client, place a tick mark in the appropriate column. It is important to allow time for the client to react and to ask questions throughout the pre- and post-test sessions. Never rush sessions. Clients should always be made to feel comfortable expressing emotions and questions and should never be judged or punished. Clients' rights should always be respected and upheld, including their right to decline testing or to return at a later date for testing and counseling.

**Notes:** Write any additional notes about the post-test session, the client's needs, or next steps in the space provided.

**Date of next counseling session/clinic appointment:** Schedule a follow-up counseling appointment with the client and record this date, as well as any clinic appointments, in the space provided.

## Pre-HIV Test Counseling Checklist (group or individual session)

Client's Name: \_\_\_\_\_

Client's File#: \_\_\_\_\_

Topic and Key Points	Tick
<b>1. Introduce yourself and give an overview of the counseling session</b>	
<b>2. Review HIV basics, transmission, and prevention</b>	
- Review HIV basics and answer questions	
- Modes of HIV transmission	
- Ways to prevent HIV transmission	
<b>3. Counsel on benefits of HIV testing</b>	
- You cannot tell from looking at a person if he or she has HIV	
- Everyone should learn their HIV-status	
- HIV testing is a part of routine health care and is offered to all clients	
- If a person has HIV, s/he can pass it to her partner, baby, etc	
- Benefits of knowing one's HIV-status	
<b>3. Explain HIV testing process</b>	
- Confidentiality	
- Client's right to refuse or get tested at a later time	
- Method of HIV testing	
- Meaning of test results	
<b>4. Counsel on discordance and partner testing</b>	
- One partner can be living with HIV while the other is HIV-negative	
- Encourage partner testing and couples counseling	
<b>5. Counsel on HIV prevention and HIV/STI risk reduction</b>	
- Assess risk and vulnerability –assess personal risks for HIV infection and the various obstacles to prevention	
- Practice ABC's of HIV prevention (e.g., mutual faithfulness, always using condoms, abstinence)	
- Condoms, challenges to using condoms	
- STI screening, prevention, signs, and treatment	
<b>7. Offer the client an HIV test</b>	
- If s/he gives consent (written or verbal, depending on your guidelines), perform HIV test	
- If s/he refuses, encourage her to think about why and to come back if s/he has more questions or changes her mind; set up a return visit date	
<b>8. Provide referrals for ongoing counseling or other support, as needed</b>	
<b>9. Ask if s/he has any questions or concerns</b>	
<b>10. Summarize the session and next steps</b>	

Borrowed and adapted from: Republic of Zambia, Ministry of Health. 2010. *National Training Package on Provider-Initiated Paediatric HIV Testing & Counselling in Zambia.*

## Post-HIV Test Counseling Checklist for HIV-NEGATIVE Adults

Client's Name: \_\_\_\_\_

Client's File#: \_\_\_\_\_

Topic	Tick
<b>1. Provide test results and give client time to react, give emotional support</b>	
<b>2. Explain window period and encourage retesting</b>	
- Retesting in 6 weeks if there was possible exposure to HIV in past 6 weeks	
<b>3. Counsel on disclosure, discordance, and partner testing</b>	
- Who will client share the results with?	
- The test does not tell us if her/his partner has HIV	
- Encourage partner testing and couples counseling	
<b>4. Counsel on HIV prevention and HIV/STI risk reduction</b>	
- Practice ABC's of HIV prevention (e.g., mutual faithfulness, always using condoms, abstinence)	
- Condoms, challenges to using condoms	
- STI screening, prevention, signs, and treatment	
<b>6. Provide appropriate referrals and take-home information, if needed</b>	
<b>7. Ask if s/he has any questions or concerns</b>	
<b>8. Summarize the session and next steps, including the next clinic appointment date</b>	

**Notes:**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Date of next counseling session/clinic appointment:**

\_\_\_\_\_

**Counselor's signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

Borrowed and adapted from: Republic of Zambia, Ministry of Health. 2010. *National Training Package on Provider-Initiated Paediatric HIV Testing & Counselling in Zambia*.

## Post-HIV Test Counseling Checklist for HIV-POSITIVE Adults

Client's Name: \_\_\_\_\_

Client's File#: \_\_\_\_\_

Topic	Tick
<b>1. Provide test results and give client time to react, give emotional support</b>	
<b>2. Discuss any concerns the client has about his/her own health</b>	
<b>3. Discuss ABC's of HIV prevention</b>	
- Encourage partner testing and couples counselling	
- If a person has HIV, s/he can pass it to her partner, baby, etc	
- Practice ABC's (e.g., mutual faithfulness, always using condoms, abstinence)	
<b>4. Counsel on staying healthy and living positively with HIV</b>	
- Come back to the clinic for all appointments	
- Importance of emotional support from family and friends	
- CD4 testing and meaning of results	
- ARVs or ART and importance of starting early and adherence	
- Disclosure - who will client share the results with?	
- Partner testing, testing children if applicable	
- Preventing and early treatment of opportunistic infections	
- Nutrition and hygiene	
<b>8. Provide appropriate referrals and take-home information</b>	
<b>9. Ask if she has any questions or concerns s/he wants to discuss now</b>	
<b>10. Summarize the session and next steps, including the next clinic appointment</b>	

Notes:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Date of next counseling session/clinic appointment:

\_\_\_\_\_

Counselor's signature: \_\_\_\_\_

Date: \_\_\_\_\_

Borrowed and adapted from: Republic of Zambia, Ministry of Health. 2010. *National Training Package on Provider-Initiated Paediatric HIV Testing & Counselling in Zambia*.

## **Appendix 2C: Independent Learning Contract**

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The purpose of independent learning activities is to encourage participants to explore selected areas of learning and professional practice. This opportunity encourages self-directedness and the transition into the professional role of a “nurse mentor”.

With guidance from the modules, the participant creates a contract with the trainer that reflects 1 or more of the learning activities described in the 3<sup>rd</sup> session of every module.

### **Guidelines:**

1. If a participant misses a training session or would like additional practice and supplemental information on the topic areas in a particular module, s/he will submit a proposed Independent Learning Contract (see contract on next page), suggesting a topic area and choosing an independent learning activity described in Session 3 of the module. Trainers and participants are encouraged to think of their own ideas for learning activities in addition to those suggested in the module.

### **Example of Completed Independent Learning Contract (refer to blank contract on next page)**

**Module name and number:** *HIV Basics: Transmission, Testing, and Counselling, Module 2*

**Topic Area:** *Provider-initiated HIV counselling and testing*

**Description of Independent Learning Activity:** *I will review and provide summary of a journal article on provider-initiated HIV counselling and testing.*

2. Both the participant and trainer should sign and date the learning contract upon submission and note the proposed date of completion for the activity.
3. Unless agreed otherwise, participants should usually complete and present assignments on the date of the next training session.
4. Participants should be encouraged to work in small groups, in order to ensure peer review and feedback on their work.
5. Final evaluation of the activities will be conducted by the trainer and should be documented on the contract.

## INDEPENDENT LEARNING CONTRACT

Name of participant: \_\_\_\_\_

Module name and number: \_\_\_\_\_

Topic Area: \_\_\_\_\_

Description of Independent Learning Activity: \_\_\_\_\_

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Submission date: \_\_\_\_\_

Proposed date of completion for activity: \_\_\_\_\_

Signature of participant: \_\_\_\_\_

Signature of trainer: \_\_\_\_\_

### FINAL EVALUATION BY TRAINER:

**Tick one:**

Assignment was completed in satisfactory manner

Assignment was not completed

**Comments:**

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## Appendix 2D: Mentoring Action Plan (Sample with suggested responses)

Name of nurse mentor: \_\_\_\_\_

Name of mentee: \_\_\_\_\_

Date of plan: \_\_\_\_\_

Mentoring Goal	What are the specific learning activities to achieve this goal?	Date to be completed	What resources or support are needed?	Means of evaluation	Date completed	Comments
<b>Goal #1:</b> Increase competency in delivering pre- and post-test counselling to clients	1. Provide pre- test counselling to 3 groups in the clinic	3 weeks: to be completed by Jan 31, 2012	Feedback session with mentor after sessions, to discuss challenges	Mentor will observe one group session		
	2. Provide pre- and post- test counselling to 3 clients in the clinic	3 weeks: to be completed by Jan 31, 2012	Feedback session with mentor after sessions, to discuss challenges	Mentor will observe one individual session		
	3. Mentee will shadow the nurse mentor, if needed	Every third week of the month (e.g. Tues)	Agreement and commitment from supervisor and client	N/A		

<b>Goal #2</b>	1.							
	2.							
	3.							
<b>Goal #3</b>	1.							
	2.							
	3.							

## **Mentoring Action Plan (Blank, for participant use)**

Name of nurse mentor: \_\_\_\_\_

Name of mentee: \_\_\_\_\_

Date of plan: \_\_\_\_\_

<b>Mentoring Goal</b>	<b>What are the specific learning activities to achieve this goal?</b>	<b>Date to be completed</b>	<b>What resources or support are needed?</b>	<b>Means of verification</b>	<b>Final Evaluation of Competency</b>	<b>Comments</b>
<b>Goal #1:</b>	<b>1.</b>					
	<b>2.</b>				<b>N</b>	
	<b>3.</b>					

<b>Goal #2</b>	1.							
	2.							
	3.							
<b>Goal #3</b>	1.							
	2.							
	3.							

## **Appendix 2E: Mentoring Orientation Guide**

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These are some basic steps for how to get started with your mentee and are designed based on research of “best practices” for mentoring programs. You will not be able to cover all of these topics in one meeting, so use these questions and discussion topics to fit your own style and approach.

1. Talk about what nurse mentoring is and the mentee’s understanding of the process (e.g. opportunity for skill development, ongoing training, advanced knowledge).
2. Mentor talks about why they mentor.
3. Discuss what information is confidential in the mentoring relationship and what is not (e.g. describe what instances will conduct or performance be reported to a supervisor).
4. Mentor asks mentee what they would like to get out of the partnership.
5. Mentor asks mentee some questions to begin to get to know more about them and what they want to achieve.
6. Mentor talks about their own background.
7. Review roles and responsibilities of mentor and mentee.
8. Mentor asks questions about what mentee needs from the mentor.
9. Mentor shares with mentee what they need from them as the mentee (e.g. what’s important to them in the mentoring relationship and how they like to work as a mentor).
10. Mentor and mentee decide on the logistics and structures that they want to use to support their relationship (e.g. meeting frequency, teaching and learning strategies, such as case review, bedside teaching, etc).
11. Mentor and mentee make some agreements based on above conversations about how to support mentee in achieving their agenda and goals. Mentor and mentee should review job competencies and identify some areas in which mentee requires support).
12. Mentor asks mentee if there is anything else that is important to the mentee to cover in the meeting.
13. Close with what the next steps are and agree on next meeting.

## References and Resources

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<sup>1</sup> UNAIDS (2010) 'UNAIDS report on the global AIDS epidemic'

<sup>2</sup> UNAIDS (2010) 'UNAIDS report on the global AIDS epidemic'

<sup>3</sup> ICAP. 2010. *Improving Retention, Adherence, and Psychosocial Support within PMTCT Services, Implementation Workshop Curriculum for Health Workers, Trainer's Manual.*

<sup>4</sup> Prevention Trials Network (HPTN). 2011. *Initiation of antiretroviral treatment protects uninfected sexual partners from HIV Infection (HPTN Study 052).* Press Release. HPTN.

<sup>5</sup> University of Washington International Clinical Research Center (ICRC). 2011. *Pivotal study finds that HIV medications as highly effective as prophylaxis against HIV infection against men and women in Africa.* Press Release. ICRC.

<sup>6</sup> Centers for Disease Control and Prevention (CDC). 2011. *CDC trial and another major study find PrEP can reduce risk of HIV infection among heterosexuals.* Press Release. CDC.

<sup>7</sup> Grant RM, Iama JR, Anderson PL, McMahan V, Liu AY, Vargas L, et al. 2010. *Pre-exposure chemoprophylaxis for HIV prevention in men who have sex with men.* New England Journal of Medicine. 363(27):2587-99.

<sup>8</sup> Republic of Zambia, Ministry of Health. 2010. *National Training Package on Provider-Initiated Paediatric HIV Testing & Counselling in Zambia.*

# **Module 3      The Progression of HIV Disease**

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**Session 3.1: Review of Key Competencies and Key Updates for Progression of HIV Disease**

**Session 3.2: Teaching, Mentoring, and Skills Transfer**

**Session 3.3: Additional Learning Activities**

**Session 3.4: Action Planning**

## **Learning Objectives**

**After completing this module, participants will be able to:**

- Discuss the life cycle of HIV.
- Explain primary stages of HIV disease progression in the body.
- List the clinical conditions that characterize each WHO stage of HIV.
- Classify an HIV-infected adult client according to the WHO clinical stages.
- Practice the bedside clinical teaching technique that can be used for helping mentees achieve competence in HIV care and treatment services.
- Describe alternative and supplemental learning activities for the module.
- Describe the role of the nurse mentor and educator as a coach for their mentees.

## Session 3.1

# Review of Key Competencies and Key Updates for Progression of HIV Disease

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### Session Objectives

**After completing this session, participants will be able to:**

- Discuss the life cycle of HIV.
- Explain primary stages of HIV disease progression in the body.
- List the clinical conditions that characterize each WHO stage of HIV.
- Classify an HIV-infected adult client according to the WHO clinical stages.

### HIV Life-Cycle

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The HIV life-cycle is the story of how a single HIV virus particle invades a cell and uses it to produce new HIV particles:

#### **Infection:**

- In order for a person to become infected with HIV, one or more virus particles must enter the body.
- HIV infects cells in the immune system and the central nervous system. HIV can only replicate (make new copies of itself) inside human cells. The main cell that HIV infects is the T helper lymphocyte. These cells play a crucial role in the immune system, by coordinating the actions of other immune system cells. A large reduction in the number of T helper cells seriously weakens the immune system.

#### **Binding and Fusion:**

- HIV infects the T helper cell because it has the protein CD4 on its surface, which HIV uses to attach itself to the cell before gaining entry. This is why the T helper cell is sometimes referred to as a CD4+ lymphocyte or CD4 cell.

#### **Reverse Transcription:**

- HIV is a retrovirus, which means it has genes composed of ribonucleic acid (RNA) molecules. It's considered a retrovirus because it uses an enzyme, reverse transcriptase, to convert RNA into DNA.

#### **Integration:**

- The virus' new genetic material enters the nucleus of the CD4 cell and uses an enzyme called integrase to integrate itself into the body's own genetic material, where it may stay inactive for several years.



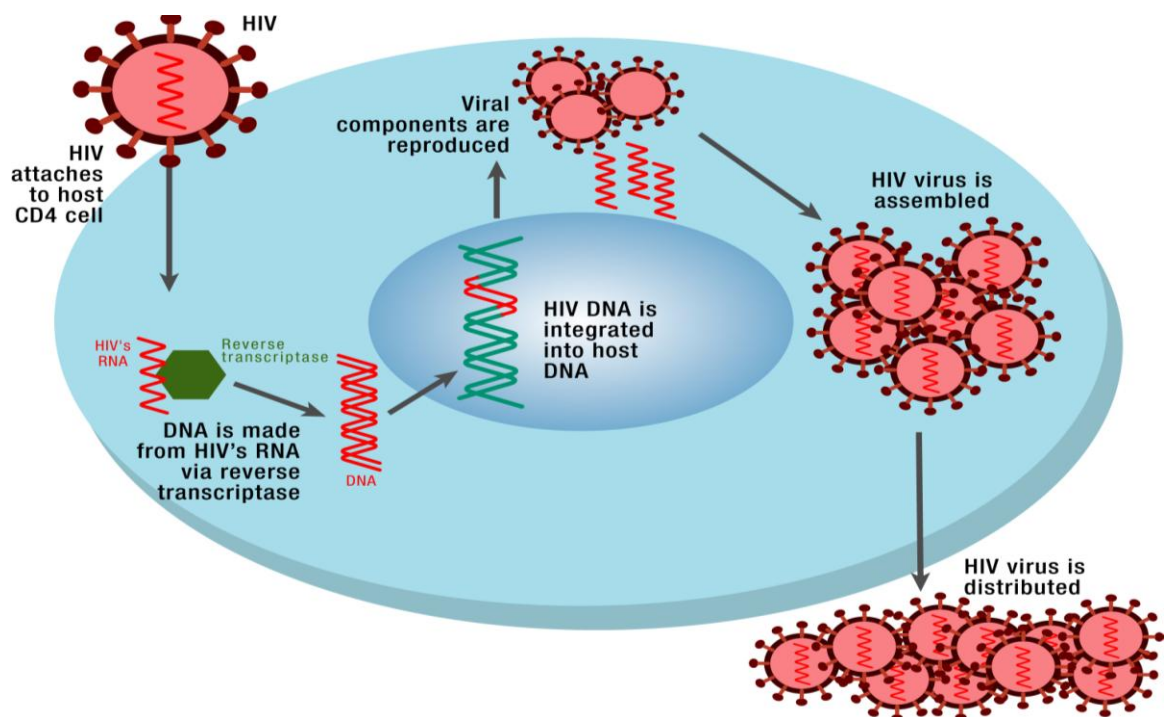
### Transcription:

- When the host cell becomes activated, and the virus uses the body's own enzymes to create more of its genetic material—along with a more specialized genetic material that allows it make longer proteins.

### Assembly, Budding, and Maturation:

- This is followed by assembly, budding, and maturation, in which the new HIV particles are packaged up and sent out to infect new cells.
- The host CD4 cell gets destroyed during this process.
- HIV infection leads to a severe reduction in the number of T helper cells available to help fight disease. The number of T helper cells is measured by having a CD4 test and is referred to as the CD4 count. It can take several years before the CD4 count declines to the point that an individual is said to have progressed to AIDS.

**Figure 3.1: HIV Life-Cycle**



Source: I-TECH, 2005

### Stages of HIV Progression

- HIV infection can generally be broken down into four distinct stages: primary infection, clinically asymptomatic stage, symptomatic HIV infection, and progression from HIV to AIDS.
- Knowing the continuum of HIV disease enables nurses to provide effective client care and ensure planning to delay HIV progression, by monitoring for signs and symptoms of immune system suppression.

### **Stage 1: Primary HIV Infection**

- During this stage, HIV is present in the blood but antibody laboratory tests cannot detect it for up to 3 months. This stage is divided into two parts:
  - **Entry / point of infection:** This is the time when the virus enters the body. The person has no signs or symptoms of the infection but can pass on the infection to others.
  - **Window period:** During this time, HIV is multiplying in the body but cannot usually be detected by antibody laboratory tests because the body has not produced sufficient antibodies. Frequently, this occurs for a period of time between two weeks and three months.
- During this stage there is a large amount of HIV in the blood and the immune system begins to respond to the virus by producing HIV antibodies and cytotoxic lymphocytes that keep viral replication in check. This process is known as seroconversion. If an HIV antibody test is done before seroconversion is complete, then it may not be positive.

### **Stage 2: Asymptomatic**

- Early immune depletion - CD4 > 500.
- Level of virus is low. HIV replication takes place mostly within lymph nodes.
- This stage lasts for an average of 10 years and, as its name suggests, is free from major signs and symptoms, although there may be swollen glands. The time period ranges from 2 months to several years and varies from person to person.
- The length of time a person stays in good health depends on one's immunity as well as other factors such as access to health care, nutritional status, and co-infection.

### **Stage 3: Symptomatic HIV Infection**

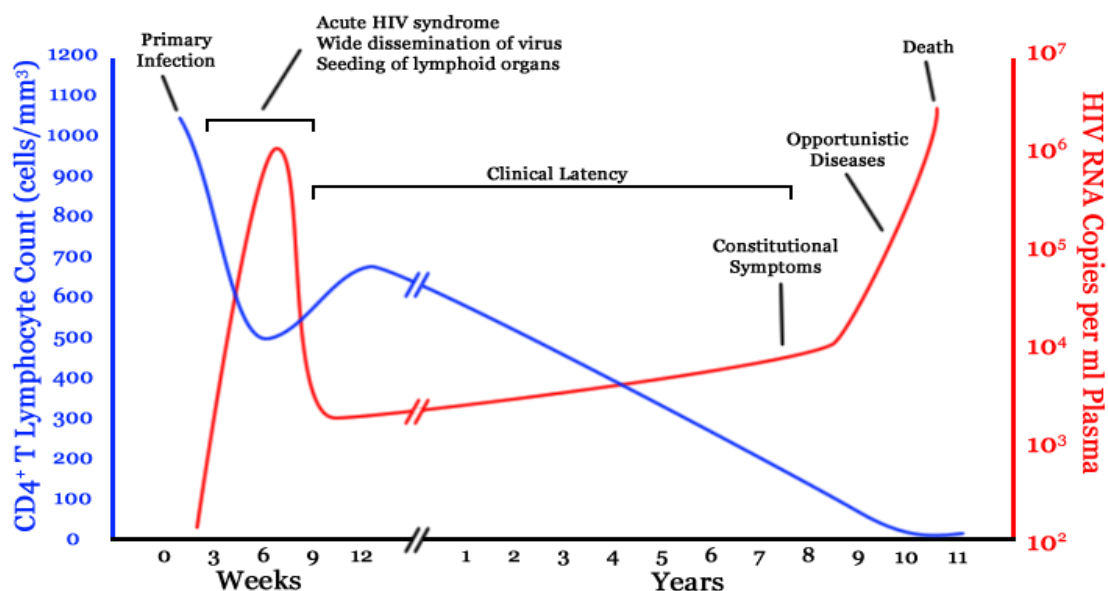
- Intermediate immune depletion – CD4 between 500 – 200.
- HIV mutates and becomes more pathogenic, in other words stronger and more varied, leading to more T helper cell destruction.
- Infections start and persist as CD4 count decreases.
- Symptomatic HIV infection is mainly caused by the emergence of opportunistic infections and cancers that the immune system would normally prevent. These can occur in almost all the body systems.
- This phase can be divided into two parts:
  - **Early symptomatic HIV disease:** At this stage, the symptoms that appear include fever, unexplained weight loss, recurrent diarrhoea, fatigue, headache, and loss of appetite. Cutaneous manifestations (skin changes) like seborrheic dermatitis, folliculitis, recurrent herpes simplex infections and oral hairy leukoplakia may occur. Other signs/ symptoms of opportunistic infections (OI) include sores (in or around the mouth or in the genital areas), continuous or severe headaches, unclear sight or other changes in vision, vaginal discharge, vaginal burning or itching, irregular menstrual bleeding, and/or continuous abdominal pain.

- **Late symptomatic HIV disease:** As the CD4 count falls, the risk of developing serious opportunistic infections or malignancy is very high. Such infections include: pneumocystis pneumonia, tuberculosis (TB), kaposi sarcoma (KS), toxoplasma encephalitis, cryptococcosis, disseminated mycobacterium avium complex (MAC), esophageal candidiasis, cryptosporidiosis, cytomegalovirus (CMV), isosporiasis and lymphoma.

#### Stage 4: Advanced HIV/AIDS

- The viral load is very high, and the CD4 count is less than 200.
- HIV-infected clients continue to develop new opportunistic infections, such as cytomegalovirus infection, mycobacterium avium complex, cryptococcal meningitis, progressive multifocal leukoencephalopathy, and other infections

In general, the severity of HIV disease is determined by amount of virus in the body (increasing viral load) and the degree of immune suppression (decreasing CD4 counts). As the viral load increases, the immune function decreases. **Figure 3.2** shows the natural course of HIV infection with corresponding viral load and CD4 count.



Source: Fauci, et al, *Immu. Mech HIV Inf*, 1996

### WHO Staging for HIV Infection and Disease in Adults

In areas with adequate resources, laboratory measurements of CD4 cells and HIV viral load are commonly used to establish a client's degree of immunosuppression and the rate of destruction of the immune system. These tools are used to ascertain a client's eligibility for treatment and to monitor disease progression. With insufficient resources, nurses must rely on clinical parameters when assessing a client's disease status.

The World Health Organisation (WHO) has therefore developed a staging

system for HIV disease based on clinical symptoms, which may be used to guide medical decision-making.

HIV clinical staging criteria were developed to:

- Provide uniformity for the clinical evaluation of persons with HIV infection.
- Predict the progression to AIDS in persons with HIV infection.
- Guide clinical management of clients, including initiation of prophylaxis and ART.
- Help people to study the natural history of HIV infection.

The WHO clinical staging system has been shown to be a practical and accurate way to manage HIV-infected clients, with international studies showing agreement between clinical manifestations included in the WHO staging system and laboratory markers, including CD4 count and total lymphocyte count.

When using the WHO staging system, nurses should remember:

- There are different staging systems for adults and children.
- Staging should be assessed at time of HIV diagnosis, prior to starting ART, and with each follow-up visit to assess response to ART and to monitor disease progression.
- A full clinical assessment and medical history is required for staging.
- If a person has 1 or more conditions listed within the stage, they are categorized into that stage.
- There are 3 points that should be kept in mind when staging clients: their recent clinical signs, their most recent clinical diagnosis if any made, and the level of activity of client.

### **WHO clinical staging of HIV infection and disease**

Participants should refer to *Appendix A: WHO Clinical Staging of HIV Disease in Adults and Adolescents*. This appendix can be used as a reference guide when working in the clinic or mentoring other nurses. Clinical staging systems are often adjusted and updated, and nurses should ensure they are using the most recent reference tables.

#### **Clinical Stage 1**

- Asymptomatic
- Persistent generalised lymphadenopathy
- Performance Scale 1: Asymptomatic, normal activity

#### **Clinical Stage 2**

- Weight loss less than 10% of body weight
- Minor mucocutaneous manifestations (seborrheic dermatitis, prurigo, fungal nail infections, recurrent oral ulcerations, angular stomatitis)
- Herpes Zoster within the last 5 years
- Recurrent upper respiratory tract infections, e.g., bacterial sinusitis
- And/or Performance Scale 2: Symptomatic but normal activity

### **Clinical Stage 3**

- Weight loss is more than 10% of body weight
- Unexplained chronic diarrhoea for more than 1 month
- Unexplained prolonged fever, intermittent or constant, for more than 1 month
- Oral candidiasis
- Oral hairy leukoplakia
- Pulmonary tuberculosis within the past year
- Severe bacteria infections such as pneumonia, pyomyositis
- And/or Performance Scale 3: Bed-ridden for less than 50% of the day during the last month

### **Clinical Stage 4**

- HIV wasting syndrome – weight loss of more than 10%, and either unexplained chronic diarrhoea for more than 1 month, or chronic weakness or unexplained prolonged fever for more than 1 month
- Pneumocystis carinii pneumonia
- Toxoplasmosis of the brain
- Cryptosporidiosis with diarrhoea for more than 1 month
- Extrapulmonary cryptococcosis
- Cytomegalovirus (CMV) disease of an organ other than liver, spleen or lymph nodes
- Herpes simplex virus (HSV) infection, mucocutaneous for more than one month, or visceral of any duration
- Progressive multifocal leukoencephalopathy (PML)
- Any disseminated endemic mycosis such as histoplasmosis, coccidioidomycosis
- Candidiasis of the esophagus, trachea, bronchi or lungs
- Atypical mycobacteriosis, disseminated
- Non-typhoid salmonella septicaemia
- Extrapulmonary tuberculosis
- Lymphoma
- Kaposi's sarcoma
- HIV encephalopathy – disabling cognitive and/or motor dysfunction interfering with activities of daily living, progressing slowly over weeks or months, in the absence of concurrent illness or condition other than HIV infection that could account for the findings
- And/or Performance Scale 4: Bed-ridden for more than 50% of the day during the last month

### **Considerations for nurse mentors and educators when teaching clinical staging<sup>1</sup>**

- Nurse mentors and educators should distinguish between understaging (client's HIV is more advanced than a mentee says) and overstaging (client's HIV is less advanced than a mentee says).
- It is important to spend adequate time educating a mentee about correctly interpreting WHO standards for staging.

- As a learning exercise, nurse mentors and educators should consider asking their mentees to create job aids, such as wall charts or pocket cards with staging criteria.
- Common errors in staging are as follows:
  - Overstaging is often due to self-limited or acute problems, such as infectious diarrhea or vaginitis, that are mistakenly identified as chronic or recurrent.
  - Understaging is often due to having insufficient information about the client's history (e.g. failing to assess client for current or previous OIs).
  - Mentees often have difficulty in calculating percentage weight loss.
- On its own, the WHO clinical staging table found in *WHO Case Definitions of HIV for Surveillance and Revised Clinical Staging and Immunological Classification of HIV-Related Disease in Adults and Children (2006)* does not sufficiently explain how to identify staging criteria.
- All nurses should review the companion WHO table *Criteria for HIV-related Clinical Events in Adults and Adolescents (Annex 1 of the 2006 Case Definition)* as well as use *Appendix A: WHO Clinical Staging of HIV Disease in Adults and Adolescents* as a reference guide.

**Exercise 1: WHO Clinical Staging: Case studies and large group discussion**

<b>Purpose</b>	<ul style="list-style-type: none"> <li>• To provide participants with an opportunity to apply their understanding of the WHO clinical staging criteria to specific case studies</li> </ul>
<b>Instruction</b>	<p><b>Part 1: Small Group Work</b></p> <ol style="list-style-type: none"> <li>1. The trainer will begin the exercise by breaking participants into small groups of approximately 4-5 people.</li> <li>2. Participants should read each case study and then, working in their respective groups, they should answer the accompanying questions in their Participant Manuals.</li> <li>3. Participants should refer to <i>Appendix 2A: WHO Clinical Staging of HIV Disease in Adults and Adolescents</i> as guidance during the exercise.</li> </ol> <p><b>Part 2: Large Group Discussion</b></p> <ol style="list-style-type: none"> <li>4. Participants will be invited to share and compare their responses to each case study.</li> </ol>

**Exercise 1: WHO Clinical Staging: Case studies and large group discussion**

**Case Study 1:**

C\_\_\_ is a 24-year-old woman who was raped 3 months ago. About a month later, she visited her village clinic, complaining of fever, malaise, fatigue, and swollen lymph nodes. At that clinic, she was diagnosed with influenza.

One month later she comes to see you for a routine check up, tests positive for HIV, but is now asymptomatic.

- *What is the client's clinical stage of HIV infection in this case study? Explain your reasoning.*

**Case Study 2:**

N\_\_\_ is a 27-year-old HIV-infected client. He is brought to your clinic in a wheelchair accompanied by his mother. He says he is unable to walk due to fatigue and feeling weak. He also reports diarrhea and intermittent fever. On examination, N\_\_\_ presents with weight loss of 8 kg (from 50kg to 42kg) over last 6 months.

- *What is the client's clinical stage of HIV infection in this case study? Explain your reasoning.*

**Case Study 3:**

A 37-year-old HIV-infected male, named H\_\_\_, presents at your clinic. He has lost 9 kg in last 3 months (previously 75 kg) and reports having a fever for the past 2 weeks. He says that he generally goes to bed by late afternoon every day. Five months ago, he was treated for pulmonary TB.

- *What is the client's clinical stage of HIV infection in this case study? Explain your reasoning.*

**Case Study 4:**

D\_\_\_ is a 29-year-old female client who presents with white linear, vertical, raised, lesions over the side of the tongue.

- *What is the client's diagnosis and clinical stage of HIV infection in this case study? Explain your reasoning.*

**Case Study 5:**

P\_\_\_ is a 69-year-old male client known to have HIV who was admitted to the hospital with complaints of fever and cough for 2 weeks and weight loss (he weighed 70 kg 6 months ago and now weighs 64 kg). Chest x-ray and sputum results are not yet available.

- *What is the client's clinical stage of HIV infection in this case study? Explain your reasoning.*

## Session 3.2 Teaching, Mentoring, and Skills Transfer

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### Session Objective

**After completing this session, participants will be able to:**

- Practice the bedside clinical teaching technique that can be used for helping mentees achieve competence in HIV care and treatment services.

### Overview of Bedside Teaching<sup>2</sup>

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Bedside teaching is an opportunity for nurse mentors and educators to teach by example. Teaching in the presence of the client has several advantages. The presence of the client strengthens the learning possibilities. As opposed to listening to a presentation or reading off a blackboard, learners have the opportunity to use nearly all of their senses - hearing, vision, smell, touch — to learn more about the client and their problems.

There are 5 basic steps to bedside clinical teaching, originally outlined by Neher, Gordon, et al<sup>3</sup>. The steps below are usually followed after the mentee has completed the presentation of the case to the mentor.

Typically, the mentee sees the client first, presents the case to the nurse mentor outside of the exam room, and then both return to the room to complete the visit. Seeing a client together, however, can also allow an opportunity for significant role modeling as well as save time, especially in clinics with a high-volume of clients.

If possible, one should provide the client with advance notice of a bedside visit with a brief discussion of its purpose and what to expect. All procedures that are to be performed should be explained to the client, even something as simple as a basic physical exam. In addition any discussion or communication about the client should be understandable by the client and should be explained to the client. For this reason, mentees should avoid making presentations at the bedside. Presenting about the client in the third person can be demeaning and confusing for the client.

**Remember that when bedside teaching, the role of the nurse mentor should always be supportive and respectful, not punitive.**

### Key steps for bedside teaching

- **Get a commitment.** In the first step, ask the mentee to state the diagnosis or plan for treatment based upon the history and symptoms the client has just presented. The nurse mentor might ask questions such as *“What do you think is going on here?”* or *“What would you like to do next?”*



- **Probe for supporting evidence.** Ask the mentee to explain how they reached their conclusion. Listening to their reasoning will help you to identify areas in which they need more information or, if their suggested diagnosis or plan of action was incorrect, in which they used faulty reasoning. Questions by the nurse mentor for this stage might include *“What led you to that conclusion?”* or *“Tell me how you reached that diagnosis.”*
- **Reinforce what was done well.** Offer specific feedback to the mentee in a private setting, like *“It was good that you did a very comprehensive exam with that client, since this was your first time seeing him.”* Giving specific comments will provide the mentee with tools to use in similar situations in the future.
- **Give guidance about errors and omissions.** As when you offer positive feedback, any corrections should be specific and offered in a private setting. Care should also be taken to make sure the feedback is constructive and includes specific plans for improvement. When making suggestions for improvement, use the first person: *“I think”*, *“I saw”*, or *“I noticed”* and use statements like *“you may want to consider...”* Examples:
  - *“I’d like to give you some feedback on that follow-up client visit. Is that OK? I saw that you were a little hesitant when you were staging that client. You may want to consider using the wall chart as a guide.”*
  - *“I’d like to provide some feedback on what I observed during my visit today.”*

Feedback should address what a person did, not your interpretation or judgment of the motivation or reason for it. An example that includes interpretation:

- *“You skipped several sections of the counseling script. I know you want to finish because it’s almost lunch time, but...”*
- **Summarise the encounter with a general principle.** Choose 1 or 2 general principles that arose from this encounter to become the take-home message. Summarizing the encounter in this way will help the mentee apply the lessons learned to other situations.

**Exercise 2: Practicing Bedside Teaching Techniques: Large group discussion, with role play**

<b>Purpose</b>	<ul style="list-style-type: none"> <li>● To provide participants with an opportunity to gain experience with the bedside teaching technique</li> </ul>
<b>Instruction</b>	<p><b>Large group discussion, with role play</b></p> <ol style="list-style-type: none"> <li>1. Participants should review the case studies in their Participant Manual.</li> <li>2. The trainer will begin the exercise by inviting 2</li> </ol>

	<p>participants to role play the 1<sup>st</sup> case study in front of the large group. One participant should be the “nurse mentor” and the other the “mentee.” If necessary, another volunteer can play the role of the client.</p> <ol style="list-style-type: none"> <li>3. The “nurse mentor” should demonstrate how they would use the principles Bedside Teaching, based on the case study.</li> <li>4. Participants have about 5–8 minutes to conduct their role play.</li> <li>5. Upon completion of the role play, participants will be invited to discuss their reaction to and feedback about the role plays, including what went well and what could be improved.</li> <li>6. Participants should continue by reading the 2<sup>nd</sup> and 3<sup>rd</sup> case study and discussing, in the large group, the “nurse mentor’s” potential responses to the “mentee” in each scenario and how they would manage the situation themselves, incorporating the principles of bedside teaching.</li> </ol>
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## Exercise 2: Practicing Bedside Teaching Techniques: Large group discussion, with role play

### **Case Study 1:**

You have recently started to work with a mentee in your clinic. You are shadowing the mentee as she sees clients today. The mentee has just finished seeing a client and is presenting a quick case summary to you in the hallway, while the client waits in the exam room. The mentee states: *“S\_\_\_ is here today with a complaint of cough and shortness of breath. This is her 2<sup>nd</sup> visit to this clinic. She was diagnosed as HIV-positive about 6 weeks ago. She has been feeling ‘tired and unwell on and off for the last month’. S\_\_\_ also reports losing at least 3 kg over the past month. She has trouble catching her breath when she tries to do activities around the house, like cooking or cleaning, or when she has to walk to the store to do shopping. Her lung exam reveals faint scattered bilateral crackles. She is not wheezing, or showing intercostal retractions.”*

When you ask the mentee for her diagnosis, she states: *“S\_\_\_ might have a respiratory infection—I think that she needs to be prescribed some antibiotics.”*

As the nurse mentor, you suspect possible pneumonia or tuberculosis, but your mentee does not seem to be reaching the same diagnosis.

- *How do you use this situation to apply the bedside teaching technique with the mentee?*

### **Case Study 2:**

You decide to observe your mentee as she sees clients in the exam room, in order to save time and not disrupt client flow. S\_\_\_’s 36-year-old, HIV – infected sister, named N\_\_\_, arrives at the clinic. She suffers from bacterial

sinusitis and a fungal infection on her toes. She has no problem keeping up with his usual activities and her weight is stable. N\_\_\_ was also treated for herpes zoster 4 years ago.

After conducting a brief physical exam, you ask the mentee to stage the client, but she seems uncertain about how to proceed. You know that the mentee generally lacks confidence with clinical staging. After some hesitation, your mentee says that she thinks the client is stage 3.

- *Has the mentee correctly staged the client?*
- *How do you apply the bedside teaching technique with the mentee in this situation?*
- *How and where do you address any misinformation provided by the mentee?*

### **Case Study 3:**

It is nearing the end of a long day and there is one more client to be seen. S\_\_\_'s husband, V\_\_\_ is a 57-year-old man, who comes to a clinic for routine follow-up. He was diagnosed with HIV infection 3 years ago and started ART 9 months ago. He has missed several follow-up appointments, but has come to the pharmacy to receive his medications every month. The doctor started him on ART, and this is the first time you and your mentee have seen him. He says that his appetite is fine, and that he is not losing weight. He denies fevers, but has some sweats at night. He denies pain, tingling, or numbness in his extremities. The remainder of his review of systems is normal, by his report. Since the mentee does not know him, she quickly reviews his chart. It reveals that he had some anaemia at baseline, and his chemistries and liver enzymes were normal before starting ART. He had reported some discolorations on his skin, but there is no further mention of this in the notes. He would like to pick up his medications and return home. The mentee agrees to this.

- *As the nurse mentor, do you agree with the mentee's decision?*
- *How should the mentee proceed with this client?*
- *How do you apply the bedside teaching technique with the mentee in this situation?*

## Session 3.3      Additional Learning Activities and Resources

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### Session Objective

**After completing this session, participants will be able to:**

- Describe independent and supplemental learning activities for the module.

### Independent Learning Activities

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Work in small groups and review the following documents:

- *WHO case definitions of HIV for surveillance and revised clinical staging and immunological classification of HIV-related disease in adults and children. 2006. Page 17, Table 4.*
- The companion WHO table “Criteria for HIV-related Clinical Events in Adults and Adolescents” (Annex 1 of the 2006 Case Definition) and *Appendix A: WHO Clinical Staging of HIV Disease in Adults and Adolescents.*

Then, organise a lunchtime learning session for nurses, to discuss the WHO clinical staging criteria for adults. Incorporate case studies as examples and ask nurses to discuss their own cases and challenges with staging clients as well. Groups should present a summary of the session at the beginning of the next training session and answer the following questions:

- *What are some of the typical challenges that nurses experience when staging clients?*
- *In general, what are the skills and knowledge still required by nurses in your clinic to stage clients competently?*
- *What are some teaching strategies that you might implement as nurse mentors and educators to help your mentees overcome these challenges?*

## Session 3.4      Action Planning

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### Session Objectives

**After completing this session, participants will be able to:**

- Describe the role of the nurse mentor and educator as a coach for their mentees.
- Practice tracking and reviewing a mentee's progress on the Mentoring Action Plan.

### Reviewing a Mentee's Progress

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#### The nurse mentor's role as a coach

- As a nurse mentor and educator, you should also be a coach for your mentee. When you act as a coach, you are helping them master their work and grow their own knowledge and skills.
- Coaching is not telling your mentees what to do or providing simple answers to their questions. Coaching is helping your mentees discover the answers themselves. It is unlocking a mentee's potential to maximize their own performance, helping them to learn rather than instructing them.
- When you review a mentee's progress, you guide them through a thinking process, helping them to discover the answers to their own questions, rather than imposing a solution. The questions below are designed to guide you through this process.
- Remember that learning is an ongoing process and is best facilitated when the learner has a chance to test ideas, analyze mistakes, take risks, and be creative.

#### Key points for reviewing the Mentoring Action Plan

To track progress towards achieving one's goals, the nurse mentor and mentee should review the Mentoring Action Plan regularly. The following questions can serve as a guide when reviewing the plan with the mentee:

- *What goal or activity on your Action Plan are you currently working on? What is happening now related to your learning goals?*
- *Rate yourself, on a scale of 1 to 10, on your progress towards each of the goals on the Mentoring Action Plan.*
- Always provide positive feedback on what has been accomplished.
- If their progress rating is low, ask:
  - *What obstacles are you facing? What have you done about this so far and what results did your actions produce?*
  - *What options do you have? Getting the mentee to consider alternative actions can not only help to broaden his perspective on the situation, it can also help you discover options that you may not have considered in the past.*

- *What support do you need?* Make certain the mentee can identify what resources s/he requires to achieve her goals.
- *Would you like another suggestion?* Try to ask the question in this way, rather than imposing your own solution on the mentee. Imposing a solution does not help the mentee learn.
- *How will you now move forward, and when will you do it?* Help the mentee to recommit to a plan of action.

## **Conflict Resolution with a Mentee<sup>4</sup>**

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Conflict in the workplace can be incredibly destructive to good teamwork. Managed in the wrong way, real and legitimate differences between you and your mentee can quickly spiral out of control, resulting in situations where co-operation breaks down and the clinic's morale and functioning is threatened.

To calm these situations down, it helps to take a positive approach to conflict resolution, where discussion is courteous and non-confrontational, and the focus is on issues rather than on individuals. If this is done, then, as long as people listen carefully and explore facts, issues and possible solutions properly, conflict can often be resolved effectively.

### **Key points for resolving conflicts**

Nurse mentors and educators can use these conflict resolution methods to think about the most appropriate approach (or mixture of approaches) for their particular situation with mentees. Ideally nurse mentors and educators should adopt an approach that meets the situation, resolves the problem, respects the mentee's legitimate interests, and mends damaged working relationships.

- **Make sure that good relationships are the first priority:** As far as possible, make sure that you treat the mentee calmly and that you try to build mutual respect. Do your best to be courteous to one-another and remain constructive under pressure.
- **Keep people and problems separate:** Recognize that in many cases the mentee is not just "being difficult" – real and valid differences can lie behind conflictive positions. By separating the problem from the person, real issues can be debated without damaging working relationships.
- **Pay attention to the interests that are being presented:** By listening carefully, you will understand why the person is adopting his or her position.
- **Listen first; talk second:** To solve a problem effectively you have to understand where the other person is coming from before defending your own position.
- **Set out the "Facts":** Agree and establish the objective, observable elements that will have an impact on the decision.
- **Explore options together:** Be open to the idea that a third position may exist, and that you can get to this idea jointly.

## Key steps to resolving conflicts

By following these key steps, nurse mentors and educators can often keep contentious discussions positive and constructive. This helps to prevent the antagonism and dislike which so-often causes conflict to spin out of control.

- **Step 1-Set the Scene:** Understand that the conflict may be a mutual problem, which may be best resolved through discussion and negotiation rather than through raw aggression. If you are involved in the conflict, emphasize the fact that you are presenting your perception of the problem. Use the 7 listening and learning skills to ensure you hear and understand other's positions and perceptions.
- **Step 2-Gather Information:** Ask for the other person's viewpoint and confirm that you respect his or her opinion and need his or her cooperation to solve the problem. Try to understand his or her motivations and goals, and see how your actions may be affecting these.
- **Step3-Agree on the Problem:** Different people may see different but interlocking problems – if you can't reach a common perception of the problem, then at the very least, you need to understand what the other person sees as the problem.
- **Step 4-Brainstorm Possible Solutions:** To solve a problem effectively you have to understand where the other person is coming from before defending your own position.
- **Step 5-Negotiate a Solution:** By this stage, the conflict may be resolved: Both sides may better understand the position of the other, and a mutually satisfactory solution may be clear to all. However you may also have uncovered real differences between your positions. This is where a compromise technique can be useful to find a solution that, at least to some extent, satisfies everyone.

### Exercise 3: Reviewing the Mentoring Action Plan: Case studies, with role play and large group discussion

<b>Purpose</b>	<ul style="list-style-type: none"> <li>• To discuss coaching strategies that can be used when reviewing a mentee's performance</li> </ul>
<b>Instruction</b>	<p><b>Part 1: Role Play and Large Group Discussion</b></p> <ol style="list-style-type: none"> <li>1. Participants should review the 1<sup>st</sup> case study in their Participant Manuals.</li> <li>2. The trainer will begin the exercise by inviting 2 participants to role play the 1<sup>st</sup> case study in front of the large group. One participant will be the “nurse mentor” and the other participant will play the part of the “mentee.”</li> <li>3. The “nurse mentor” should respond to the conflict presented in the case study, by using a coaching approach to help the “mentee” move forward with her learning goals.</li> <li>4. “Nurse mentors” can also refer to <i>Appendix 3B: Listening and Learning Skills Checklist</i> as a guide for the conversation.</li> </ol>

	<ol style="list-style-type: none"> <li>5. Participants will be invited to discuss what worked well during the role play and possible ways to improve mentoring and coaching skills.</li> <li>6. Participants should review the 2<sup>nd</sup> case study in their Participant Manuals.</li> <li>7. Participants should discuss how the “nurse mentors” should manage the review session.</li> </ol>
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**Exercise 3: Reviewing the Mentoring Action Plan: Case studies, with role play and large group discussion**

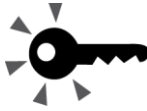
**Case Study 1:**

You have been mentoring a new nurse at your clinic for about 3 months. You arrange a brief meeting with her to review the Mentoring Action Plan and update the mentee’s learning goals, but it is obvious the mentee has not made much progress. Your mentee seems frustrated and says that *“it’s not my fault”* and states that your mentoring is *“getting in the way”* of her work and is *“slowing her down when seeing clients”*. She explains that she already has too much responsibility---*“this mentoring thing is just making things worse.”* How do you proceed?

**Case Study 2:**

You are a nurse mentor and you are 10 years younger than your mentee. You feel somewhat uncomfortable advising and critiquing the performance of a superior. When you meet with your mentee to review her progress on the Mentoring Action Plan, she seems a bit irritated when you ask about her learning goals and tells you that she doesn’t have time for this. How do you proceed with the mentee?





### **Module 3: Key Points**

- Understanding HIV and its life cycle helps us to understand disease progression in the body, enables us to provide the best possible nursing care for clients, and increases our ability to educate other nurses and midwives about how to manage HIV.
- HIV infection can generally be broken down into four distinct stages: primary infection, clinically asymptomatic stage, symptomatic HIV infection, and progression from HIV to AIDS.
- WHO has developed a staging system of HIV in which four clinical stages of disease are identified based on certain signs and symptoms. These stages give us a clear indication of the severity of disease and prognosis and facilitate planning for appropriate treatment and care.
- Staging should be assessed at time of HIV diagnosis, prior to starting ART, and with each follow-up visit to assess a client's response to ART and to monitor disease progression.
- A full clinical assessment and medical history is required for clinical staging.
- If a person has one or more conditions listed within the stage, they are categorized into that stage.
- There are three points that should be kept in mind when staging clients: their recent clinical signs, their most recent clinical diagnosis if any made, and the level of activity of client.
- Bedside teaching is an opportunity to teach by example, and the role of the mentor should be supportive and respectful, not punitive.
- Regular review and tracking of the mentee's performance provides nurse mentors and educators with information needed to address learning gaps and opportunity to support and coach the mentee.
- Nurse mentors and educators should keep contentious discussions with their mentees positive and constructive. This helps to prevent the antagonism and dislike which so-often causes conflict to spin out of control.

## Appendix 3A: WHO Clinical Staging of HIV Disease in Adults and Adolescents

Use this clinical staging for adults and adolescents age 15 years or older.

Clinical Stages	
<b>Clinical Stage 1</b>	
<ul style="list-style-type: none"> <li>Asymptomatic</li> </ul>	<ul style="list-style-type: none"> <li>Persistent generalised lymphadenopathy</li> </ul>
<b>Clinical Stage 2</b>	
<ul style="list-style-type: none"> <li>Moderate unexplained<sup>1</sup> weight loss (under 10% of presumed or measured body weight)<sup>2</sup></li> <li>Recurrent respiratory tract infections (sinusitis, tonsillitis, otitis media, pharyngitis)</li> </ul>	<ul style="list-style-type: none"> <li>Herpes zoster</li> <li>Angular cheilitis</li> <li>Recurrent oral ulceration</li> <li>Papular pruritic eruptions</li> <li>Seborrhoeic dermatitis</li> <li>Fungal nail infections</li> </ul>
<b>Clinical Stage 3</b>	
<ul style="list-style-type: none"> <li>Unexplained<sup>1</sup> severe weight loss (over 10% of presumed or measured body weight)<sup>2</sup></li> <li>Unexplained<sup>1</sup> chronic Candidiasis for longer than one month</li> <li>Unexplained persistent fever (intermittent or constant for longer than one month)</li> <li>Persistent oral Candidiasis</li> <li>Oral hairy leukoplakia</li> </ul>	<ul style="list-style-type: none"> <li>Pulmonary tuberculosis</li> <li>Severe bacterial infections (for example, pneumonia, empyema, pyomyositis, bone or joint infection, meningitis, bacteraemia)</li> <li>Acute necrotising ulcerative stomatitis, gingivitis or periodontitis</li> <li>Unexplained anaemia (below 8 g/dl), neutropenia (below 0.5 x 10<sup>9</sup>/l) and/or chronic thrombocytopenia (below 50 x 10<sup>9</sup> /l)</li> </ul>
<b>Clinical Stage 4</b>	
<ul style="list-style-type: none"> <li>HIV wasting syndrome</li> <li>Pneumocystis Jiroveci pneumonia</li> <li>Recurrent severe bacterial pneumonia</li> <li>Chronic herpes simplex infection (oro-labial, genital or ano-rectal of more than one month's duration or visceral at any site)</li> <li>Oesophageal Candidiasis (or Candidiasis of trachea, bronchi or lungs)</li> <li>Extra pulmonary tuberculosis</li> <li>Kaposi sarcoma</li> <li>Cytomegalovirus infection (retinitis or infection of other organs)</li> <li>Central nervous system toxoplasmosis</li> <li>HIV encephalopathy</li> <li>Extra pulmonary cryptococcosis including meningitis</li> </ul>	<ul style="list-style-type: none"> <li>Disseminated non-tuberculosis mycobacterial infection</li> <li>Progressive multifocal leukoencephalopathy</li> <li>Chronic cryptosporidiosis</li> <li>Chronic isosporiasis</li> <li>Disseminated mycosis (extra pulmonary histoplasmosis, coccidiomycosis)</li> <li>Recurrent septicaemia (including non-typhoidal Salmonella)</li> <li>Lymphoma (cerebral or B cell non-Hodgkin)</li> <li>Invasive cervical carcinoma</li> <li>Atypical disseminated leishmaniasis</li> <li>Symptomatic HIV-associated nephropathy or HIV-associated cardiomyopathy</li> </ul>
<p><sup>1</sup> Unexplained refers to a condition that is not explained by other conditions.</p> <p><sup>2</sup> Assessment of body weight among pregnant women needs to consider the expected weight gain of pregnancy.</p>	

Adapted from: WHO. (2006). Revised WHO clinical staging and immunological classification of HIV and case definition of HIV for surveillance.

## Appendix 3B: Listening and Learning Skills Checklist

Listening and Learning Skills Checklist		
Skill	Specific Strategies, Statements, Behaviours	(√)
<b>SKILL 1: Use helpful non-verbal communication</b>	1. Make eye contact	
	2. Face the person (sit next to him or her) and be relaxed and open with posture	
	3. Use good body language (nod, lean forward, etc.)	
	4. Smile	
	5. Do not look at your watch, the clock or anything other than the person	
	6. Avoid distracting gestures or movements	
	7. Other (specify)	
<b>SKILL 2: Actively listen and show interest</b>	8. Use gestures that show interest (nod and smile), use encouraging responses (such as “yes,” “okay” and “mm-hmm”).	
	9. Clarify to prevent misunderstanding	
	10. Summarise to review key points at any time during the session	
	11. Other (specify)	
<b>SKILL 3: Ask open-ended questions</b>	12. Use open-ended questions to get more information	
	13. Other (specify)	
<b>SKILL 4: Reflect back what the person is saying</b>	14. Reflect back or paraphrase	
	15. Encourage the person to discuss further (“Let’s talk about that some more”)	
	16. Other (specify)	
<b>SKILL 5: Show empathy, not sympathy</b>	17. Demonstrate empathy: show an understanding of how the person feels by naming the emotion expressed	
	18. Avoid sympathy	
	19. Other (specify)	
<b>SKILL 6: Avoid judging words and provide positive, constructive feedback</b>	20. Avoid judging words such as “bad,” “proper,” “right,” “wrong,” etc.	
	21. Use words that build confidence and give support (for example, praise what a mentee is doing right)	
	22. Other (specify)	
<b>SKILL 7: Help set goals and summarise new concepts</b>	23. Work with the mentee to come up with realistic “next steps” for their learning	
	24. Summarise the main points of the teaching exercise or mentoring session	
	25. Set next date for teaching or mentoring session	

Adapted from: World Health Organization. 2008. Prevention of Mother-to-Child Transmission of HIV Generic Training Package. Available at: [http://www.womenchildrenhiv.org/pdf/p03-pi/pi-60-00/Intro\\_PM\\_2-05.pdf](http://www.womenchildrenhiv.org/pdf/p03-pi/pi-60-00/Intro_PM_2-05.pdf)

## References and Resources

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<sup>1</sup> ITECH.2008. *Clinical Mentoring Toolkit. Version 2.0*. International Training and Education Center for Health.

<sup>2</sup> ITECH.2008. *Clinical Mentoring Toolkit. Version 2.0*. International Training and Education Center for Health.

<sup>3</sup> Neher J, Gordon K, Meyer B, et al. 1992. *A five-step "microskills" model of clinical teaching. Journal of American Board Family Practitioners.* 5:419-424.

<sup>4</sup> Mind Tools, *Conflict Resolution: Resolving conflict rationally and effectively*, available at: <http://www.mindtools.com>

# **Module 4      Clinical Care for People Living with HIV**

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**Session 4.1: Review of Key Competencies and Key Updates for Clinical Care for People Living with HIV**

**Session 4.2: Teaching, Mentoring, and Skills Transfer**

**Session 4.3: Additional Learning Activities**

**Session 4.4: Action Planning**

## **Learning Objectives**

**After completing this module, participants will be able to:**

- Define the key components of HIV package of care for PLHIV.
- Review key steps for clinical visits with HIV-infected clients.
- Review eligibility criteria for initiating cotrimoxazole prophylaxis and ART with HIV-infected clients.
- Review basic principles of adherence assessment with clients.
- List WHO recommended first-line ART regimens for HIV-infected adults and adolescents.
- Review basic principles of adherence assessment and support with clients.
- Define conditions for treatment failure in HIV-infected clients.
- Practice the 5A's, as part of the WHO's Integrated Management of Adolescent and Adult Illness (IMAI) approach to chronic care.
- Describe alternative and supplemental learning activities for the module.
- Discuss some of the systems challenges that may arise in nurse mentoring and potential solutions through the use of case studies.

## **Session 4.1      Review of Key Competencies and Key Updates for Clinical Care for People Living with HIV**

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### **Session Objectives**

**After completing this session, participants will be able to:**

- Define the key components of HIV package of care for PLHIV.
- Review key steps for clinical visits with HIV-infected clients.
- Review eligibility criteria for initiating cotrimoxazole (CTX) prophylaxis and ART with HIV-infected clients.
- Review basic principles of adherence assessment and support with clients.
- List WHO recommended first-line ART regimens for HIV-infected adults and adolescents.
- Review basic principles of adherence assessment with clients.
- Define conditions for treatment failure in HIV-infected clients.

### **Overview of the Package of Care for PLHIV**

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To be effective, the package of care for PLHIV must ensure:

- Integration of services.
- That there is an emphasis on both care and treatment, and also retaining adults not eligible for ART in care.

The goals of comprehensive HIV care are to:

- Reduce HIV-related illness and death,
- Improve quality of life,
- Improve the lives of families and communities affected by HIV, and
- Prevent further spread of HIV.

### **The Importance of Family-Focused Care**

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- Family-focused care means that all members of the multidisciplinary care team think about the needs of all family members, and not just those of the client.
- It also means thinking about the linkages between the individual client, the client's family, and the community as a whole.
- Nurses should always enquire about partners and children. When the clients is ready, he or she should be encouraged and supported to bring his or her partner to the clinic for information on HIV, safer sex — including condoms use — and HIV testing.
- Depending on the client's age and family situation, nurses should make it a normal practice to ask clients about other family members and encourage them to bring family members to the clinic for services, if

needed. Nurses can provide family members with ongoing education and information on HIV care and treatment, adherence counselling and support, and general support on caring for PLHIV.

## Comprehensive HIV Care<sup>1</sup>

Comprehensive care includes the provision of the services listed in the clinical assessment checklists in Table 4.1, Table 4.2, and Table 4.3 below. It may take a few visits to complete all activities on the baseline clinical assessment.

All clients diagnosed with HIV need to be enrolled into chronic care and regularly reviewed clinically and immunologically. Upon enrolment into HIV care, clients should undergo a comprehensive baseline assessment that includes both clinical and psychosocial evaluations. The information gathered from the baseline assessment guides the care plan, including both specific medical and supportive services and the frequency of monitoring and follow-up.

Nurses should actively follow up on clients who do not come back on their appointment date, either by calling them, by phoning their treatment supporter, by visiting them at home, or by linking with community based support services.

The standard approach to reviewing all pre-ART clients includes:

- History.
- Interim history: presenting complaints.
- TB screening.
- Clinical examination and staging.
- Review of laboratory results.
- Assessment of ART eligibility.
- Adherence review and psychosocial support (See Appendices 4B and 4C for standardized psychosocial and adherence assessment tools).
- Management plan.

The 1<sup>st</sup> table (Table 4.1) outlines steps conducted at the initial baseline visit. The 2<sup>nd</sup> (Table 4.2) is the list of steps conducted at follow-up visits for clients **not** on ART, the 3<sup>rd</sup> table (Table 4.3) is a list of steps conducted at follow-up visits for clients on ART.

**Table 4.1: Key steps — baseline visit**

✓	Steps
	<ul style="list-style-type: none"> <li>• Confirm HIV infection status.</li> </ul>
	<ul style="list-style-type: none"> <li>• Take a complete medical, social, and family history. Enquire about disclosure to others and HIV and treatment status of the family members, partner(s), and offspring.</li> </ul>
	<ul style="list-style-type: none"> <li>• Identify concomitant medical conditions (for example, hepatitis B or C infection, other co-infections or OIs, such as TB).</li> </ul>
	<ul style="list-style-type: none"> <li>• Enquire about concomitant medication, including CTX</li> </ul>

	(discussed in this module), oral contraceptives, and traditional or herbal therapies.
	<ul style="list-style-type: none"> <li>• Conduct physical examination, including weight, neurodevelopment, STI screening, and skin exam.</li> </ul>
	<ul style="list-style-type: none"> <li>• Prevent, diagnose, and treat OIs and other concomitant conditions, including tuberculosis, diarrhoea, malaria, and pregnancy.</li> </ul>
	<ul style="list-style-type: none"> <li>• Assess nutrition.</li> </ul>
	<ul style="list-style-type: none"> <li>• Conduct psychosocial assessment, counselling, and support. See <i>Appendix 4B</i> for an example of a standardized psychosocial assessment that nurses can use with clients.</li> </ul>
	<ul style="list-style-type: none"> <li>• Assess client's WHO clinical stage. If not on ART, determine whether the client meets the clinical criteria for ART initiation. If already on ART, determine if any new stage 3 or 4 events have occurred since ART was initiated.</li> </ul>
	<ul style="list-style-type: none"> <li>• For those eligible for ART by clinical criteria (WHO stage 3 or 4), consider initiating ART preparation. See <i>Appendix 4C</i> for an example of a standardized adherence readiness assessment that nurses can use with clients.</li> </ul>
	<ul style="list-style-type: none"> <li>• Discuss findings.</li> </ul>
	<ul style="list-style-type: none"> <li>• Advise and guide (reinforce and support adherence to ART and CTX — if applicable, nutrition, when to seek medical care, medication side effects, adherence, provide referrals for follow up).</li> </ul>
	<ul style="list-style-type: none"> <li>• Schedule lab tests indicated.</li> </ul>
	<ul style="list-style-type: none"> <li>• Schedule next visit.</li> </ul>

**Table 4.2: Key steps — follow-up visit, clients NOT on ART**

✓	Steps
	<ul style="list-style-type: none"> <li>• Review interim medical history.</li> </ul>
	<ul style="list-style-type: none"> <li>• Conduct physical examination, including weight, neurodevelopment, skin exam, STI screening.</li> </ul>
	<ul style="list-style-type: none"> <li>• Prevent, diagnose and treat OIs and other concomitant conditions, including tuberculosis diarrhoea, malaria, and pregnancy.</li> </ul>
	<ul style="list-style-type: none"> <li>• Review concomitant medications (consider drug interactions).</li> </ul>
	<ul style="list-style-type: none"> <li>• If on CTX, provide refill, monitor adherence, and address the client's understanding of and adherence to therapy.</li> </ul>
	<ul style="list-style-type: none"> <li>• Assess client's WHO clinical stage.</li> </ul>
	<ul style="list-style-type: none"> <li>• Review clinical findings at this visit and laboratory findings (include CD4 cell count) from recent visits and consider eligibility for ART and CTX. If eligible for ART, initiate adherence preparation. See <i>Appendix 4C</i> for an example of a standardized adherence readiness assessment that nurses can use with clients.</li> </ul>
	<ul style="list-style-type: none"> <li>• Provide nutrition counselling and support.</li> </ul>
	<ul style="list-style-type: none"> <li>• Conduct psychosocial assessment, counselling, and support,</li> </ul>



	including for disclosure. See <i>Appendix 4B</i> for an example of a standardized psychosocial assessment that nurses can use with clients.
	<ul style="list-style-type: none"> <li>• Discuss prevention of transmission and risk reduction (discussed in Modules 2 and 8).</li> </ul>
	<ul style="list-style-type: none"> <li>• Provide sexual and reproductive health information, screening, diagnosis, treatment, counselling, and supplies (discussed in Module 8).</li> </ul>
	<ul style="list-style-type: none"> <li>• Provide education, care, and support for family members and/or partner.</li> </ul>
	<ul style="list-style-type: none"> <li>• Discuss findings.</li> </ul>
	<ul style="list-style-type: none"> <li>• Advise and guide (reinforce and support adherence to ART and CTX — if applicable, nutrition, when to seek medical care, medication side effects, adherence, provide referrals for follow up).</li> </ul>
	<ul style="list-style-type: none"> <li>• Schedule lab tests indicated.</li> </ul>
	<ul style="list-style-type: none"> <li>• Schedule next visit.</li> </ul>

**Table 4.3: Key steps — follow-up visit, clients on ART**

✓	Steps
	<ul style="list-style-type: none"> <li>• Conduct physical examination, including weight, neurodevelopment, and skin exam (evidence of skin changes, ART complications).</li> </ul>
	<ul style="list-style-type: none"> <li>• Review interim medical history.</li> </ul>
	<ul style="list-style-type: none"> <li>• Prevent, diagnose and treat OIs and other concomitant conditions, including TB, diarrhoea, malaria and pregnancy.</li> </ul>
	<ul style="list-style-type: none"> <li>• Review concomitant medications (consider drug interactions).</li> </ul>
	<ul style="list-style-type: none"> <li>• Provide refills for ART and CTX, monitor adherence, and address the client's understanding of and adherence to therapy. See <i>Appendix 4C</i> for an example of a standardized adherence assessment that nurses can use with clients.</li> </ul>
	<ul style="list-style-type: none"> <li>• Assess client's WHO clinical stage, determine if any new stage 3 or 4 events have occurred since ART was initiated. Assess CD4 count and determine if treatment failure has occurred.</li> </ul>
	<ul style="list-style-type: none"> <li>• Provide nutrition counselling and support, as indicated.</li> </ul>
	<ul style="list-style-type: none"> <li>• Conduct psychosocial assessment, counselling, and support, including for disclosure. See <i>Appendix 4B</i> for an example of a standardized psychosocial assessment that nurses can use with clients.</li> </ul>
	<ul style="list-style-type: none"> <li>• Discuss prevention of transmission and risk reduction (discussed in Modules 2 and 8).</li> </ul>
	<ul style="list-style-type: none"> <li>• Provide sexual and reproductive health information, screening, diagnosis, treatment, counselling, and supplies (discussed in Module 8).</li> </ul>
	<ul style="list-style-type: none"> <li>• Provide education, care, and support for family members and/or partner (discussed throughout this curriculum).</li> </ul>
	<ul style="list-style-type: none"> <li>• Discuss findings.</li> </ul>

	<ul style="list-style-type: none"> <li>• Advise and guide (reinforce and support adherence to ART and CTX — if applicable, nutrition, when to seek medical care, medication side effects, adherence, provide referrals for follow up).</li> </ul>
	<ul style="list-style-type: none"> <li>• Schedule lab tests indicated (discussed briefly below).</li> </ul>
	<ul style="list-style-type: none"> <li>• Schedule next visit.</li> </ul>

Source: All tables adapted from Zambia Ministry of Health, ICAP, and FXB (2011). Adolescent HIV care and treatment: A training curriculum for multidisciplinary healthcare teams (trainer and participant manuals). Lusaka, Zambia and NY, NY: MOH & ICAP.

Further guidance on these visits and their components can be found in the *WHO Antiretroviral Therapy for HIV Infection in Adults and Adolescents. Recommendations for a Public Health Approach*, 2010 revision.

## **Psychosocial Support Needs of PLHIV**

### **PLHIV have additional psychosocial needs, which may include:**

- Support in understanding and coming to terms with their own HIV-status and the effect it has on their own and their family's lives.
- Support with the disclosure process.
- Help coping with their diagnosis.
- Strategies to deal with stigma and discrimination.
- Strategies to encourage their partners and family members to test and, if appropriate, enrol into care and treatment programmes.
- Access to social welfare services.
- Spiritual support and referrals to spiritual counselling.
- Support for mental health, including strategies for managing anxiety and depression.
- Substance abuse management.
- Strategies to best utilise support networks.

### **Providing psychosocial support is important for PLHIV and their families because:**

- HIV affects all parts of a person's life: physical, mental, social and spiritual dimensions.
- Psychosocial well-being is related to better adherence to HIV care and treatment.
- Good mental health is closely linked to good physical health.
- Psychosocial support will increase clients' understanding and acceptance of all HIV comprehensive care and support services.
- Psychosocial support can help clients deal better with long-term illness, stigma or discrimination, taking medications every day, caring for an HIV-exposed or HIV-infected child, etc.

## **Laboratory Monitoring**

**The unavailability of laboratory monitoring, including CD4 and chemistries, should NOT prevent clients from receiving ART.**

If resources permit, **CD4** should be measured at the time of diagnosis, AND

- **Clients not yet eligible for ART:** monitor every 6 months; but 3 monthly as CD4 count approaches threshold for starting ART.
- **Clients on ART:** measure just prior to starting ART (if previous CD4 was measured more than 3 months ago) and every 6 months thereafter.
- **All clients:** measure CD4 if a new clinical staging event develops, including growth faltering and neurodevelopmental delays.

## **Cotrimoxazole (CTX) Prophylaxis**

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Cotrimoxazole prophylaxis, often referred to simply as CTX, is a well-tolerated, cost-effective, and life saving intervention for PLHIV. It should be implemented as an integral component of chronic care for clients on ART as well as a key element of pre-ART care.

### **CTX can help protect clients from the following opportunistic infections:**

- Pneumocystis pneumonia (PSP): a type of pneumonia typical among people with low immunity. This type of pneumonia presents with shortness of breath on exertion, dry cough, fever, hypoxemia (decreased level of oxygen in the blood). The prognosis of this type of pneumonia is often very poor.
- Toxoplasma brain abscess: this disease can cause hemiparesis (one side of the body is weak or cannot move anymore), often together with headache and fever.
- Pneumonia from *S. pneumoniae*.
- *Isospora belli*: this type of micro-organism is responsible for some cases of chronic diarrhoea with weight loss.
- *Salmonella* species: gastro-intestinal symptoms and fever.

### **Initiating CTX**

Indications for CTX

- Clinical criteria: Start CTX when client is in clinical stage 2, 3 or 4 regardless of CD4.
- Immunologic criteria: Start CTX when CD4 count is <350 regardless of clinical stage.
- The general recommendation is to continue CTX prophylaxis among adults living with HIV indefinitely, but this needs to be weighed against the challenges of adherence and potential drug resistance.

### **Discontinuing CTX**

- CTX can be discontinued in a client on ART if he or she shows evidence of immune recovery of CD4 >350 after at least 6 months of treatment.
- In situations where CD4 is not available, CTX may be discontinued when there is evidence of good clinical response to ART (absence of WHO clinical stage 2,3, or 4 events after at least one year of therapy), good adherence, and secure access to ART.

- If CTX is discontinued, it should be restarted if the CD4 falls below 350 cells/mm<sup>3</sup> or if the client has a new or recurrent WHO clinical Stage 2, 3, or 4 condition.

### Discontinuation of CTX due to adverse events

- Severe adverse reactions to CTX are uncommon.
- CTX should be discontinued if the client experiences drug-related adverse events such as jaundice, extensive exfoliative rash, Stevens-Johnson syndrome, severe anaemia or pancytopenia.

### Contraindications to CTX

Contraindications of CTX include:

- Clients with history of severe and life-threatening adverse reactions — grade 3 and 4 to CTX or other sulfa drugs — should not be prescribed CTX: dapson 100 mg/day should be given as an alternative.
- Severe liver disease.
- Severe renal insufficiency.
- Ask about a previous history of sulpha allergy - these clients should not be given cotrimoxazole.

**Table 4.4: Dosing for CTX Among Adults and Adolescents (>15 years)**

Recommended daily dose	
>14 years (or >30 kg) 800 mg sulfamethoxazole/ 160 mg trimethoprim	2 tablets, (400mg/80mg) daily OR 1 tablet, (800 mg/160 mg) daily
CTX can be safely continued or initiated during pregnancy, regardless of stage of pregnancy, and breastfeeding.	

Source: WHO, 2006. *Guidelines on Co-Trimoxazole Prophylaxis for HIV-Related Infections among Children, Adolescents and Adults in Resource-Limited Settings*, WHO.

### When to Start ART in PLHIV

ART helps HIV-infected clients to preserve, and enhance, their immune systems — reducing their risk of OIs, restoring growth, improving mental functioning, and overall quality of life. The decision to start ART in a client relies on clinical and immunological assessment, as well as evaluation of the client's social environment.

#### When to start ART

The criteria to initiate ART is the same in all adolescent and adult clients:

- **CD4 ≤350 or WHO stage 3 or 4, regardless of CD4 count.**

### Recommended First-Line ART Regimens

The WHO recommends the following regimens for post-pubertal adolescents and adults, explained in Table 4.5.

**Table 4.5: WHO recommended regimens for post-pubertal adolescents and adults**

	Regimen	
	NRTI backbone	NNRTI component
Preferred 1 <sup>st</sup> line <sup>4</sup>	AZT (or TDF) + 3TC (or FTC)	
Preferred 2 <sup>nd</sup> line <sup>5, 6</sup>	If AZT used in 1 <sup>st</sup> line, then TDF + (3TC or FTC)	If TDF used in 1 <sup>st</sup> line, then AZT + (3TC or FTC)
<p>1 In resource-limited settings, d4T is still the preferred option to AZT. Cumulative exposure to d4T has the potential to cause disfiguring, painful, and life-threatening side effects, such as lipodystrophy, peripheral neuropathy, and lactic acidosis. If d4T is used, it should be dosed at 30mg BID for all individuals, irrespective of body weight.</p> <p>2 Avoid use of NVP either of the following groups of clients:</p> <ul style="list-style-type: none"> <li>• Women who have had exposure to sdNVP without tail coverage with 7 days of AZT + 3TC within the last 12 months (for PMTCT). Instead do not use an Efavirenz containing regimen, instead use LPV/r. If unsure whether tail coverage for sdNVP was provided then use LPV/r</li> <li>• Clients with CD4 greater than 250</li> </ul> <p>3 The use of EFV should be avoided in women due to the fact that it may cause foetal harm in the first trimester of pregnancy. If possible, women taking EFV should be switched to a NVP-based or other regimen or counselled on and provided with a contraceptive method.</p> <p>4 TDF has been associated with renal toxicity: if CrCl &lt;50 ml/min, initiate therapy with AZT/3TC (the alternative 1st line regimen)</p> <p>5 This is the preferred 2nd line regimen for clients failing 1st line regimen.</p> <p>6 AZT is not recommended in clients with Hgb &lt;10. Delay ART until anaemia is treated or use alternative NRTI combination (some of the alternatives are listed in note 4, above).</p>		

Source: *WHO Antiretroviral Therapy for HIV Infection in Adults and Adolescents. Recommendations for a Public Health Approach, 2010 revision*

For additional information, see *Appendix 4D: ARV Dosages for Post-pubertal Adolescents and Adults* and the *WHO Antiretroviral Therapy for HIV Infection in Adults and Adolescents. Recommendations for a Public Health Approach, 2010 revision* or consult a local or provincial HIV specialist for guidance on transitioning to the 2010 recommendations.

### Possible events during the first 6 months

The first 6 months on ART are critical. In most clients, CD4 cell counts rise with the initiation of ART, increase over the course of the first year of treatment, reach a plateau and then continue to rise further over the second year. But, some fail to respond as expected or may even exhibit clinical deterioration.

- Complications in the first few weeks following the initiation of ART are seen most commonly in those with severe immunodeficiency.
- As a client with advanced disease recovers immune function, there is risk of immune reconstitution inflammatory syndrome (IRIS). IRIS — which most often occurs within the first weeks to months after initiation

of ART — is a complication caused by reactivation of the immune system. IRIS can present as a flare-up of symptoms when the recovering immune system begins to respond to an existing infection, for example, TB. The response is not due to failure of ART, but rather to its success and the resulting immune reconstitution. When IRIS is suspected, consult a clinician experienced in managing PLHIV.

- Allow sufficient time (at least 6 months on therapy) before judging the effectiveness of a regimen. Supporting adherence during this period is critical and, in such cases, switching of ARV regimen would be inappropriate.
- Persistent failure to see a CD4 response should alert the nurse to potential adherence problems or non-response to ART. In this case, viral load determination can be useful as well as a consultation with a clinician experienced in managing PLHIV.

## **Supporting Adherence to Care and Treatment**

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Adherence describes how faithfully a person sticks to and participates in his or her HIV prevention, care, and treatment plan. In the context of ART, studies have shown that clients must take over 95% of the necessary doses to achieve the conditions for therapeutic success, e.g. clients should adhere or "stick" to at least 95% of their drug schedule. Therefore, as nurses, our aim is to support clients to achieve and sustain this rate of adherence to their regimens.

Before initiating ART, healthcare providers should also think about:

- **Readiness for ART:** The client understands what ARVs are, how they are to be taken, and is ready to take on this life-long commitment.
- **Ability and willingness of client to return for regular follow up.**
- **How well the client has done taking CTX daily.**
- **Adherence and treatment preparation:** The nurse will have discussed adherence with the client and worked out a plan with the client to take ARVs every day exactly as prescribed.
- **When helping clients prepare for ART, nurses should always address the ARE YOU COMMITTED and then the WHO, WHAT, WHEN, WHERE and HOW of the medications.**
- **Family and peer support:** Ideally, clients would have family members, partners, or peers that understand their HIV diagnosis and the implications of ART, including the importance of adherence for life, and support them to take their ARVs every day.

Appendix 4C includes two standardised adherence assessment tools that nurses can use with clients:

- The *Adherence Preparation/Support Assessment for Clients Starting ART* can be used to assess adherence readiness and to help clients to develop a personal adherence plan.
- The *Adherence Assessment for Clients Taking ART* can be used at every follow up and refill visit to ensure that the client understands the care and medication plan.

- The assessment questions on each of the forms should be used to identify areas where the client may need additional information and support.

Adherence support services should be ongoing — not one-time events — and the entire multidisciplinary team, not just nurses, is responsible for providing these services.

### Frequency of clinical monitoring

#### Adults and adolescents taking ART:

- The frequency of clinical monitoring will depend on response to ART.
- At a minimum, after starting ART, **follow-up visits should occur every 3 months** once the client has stabilised on ART.

#### Adults and adolescents not yet eligible for ART:

- Follow-up visits should occur every 3 months if CD4 count is between 350–500 and every 6 months if CD4 cell count is greater than 500.

## Toxicities

Toxicity can be monitored clinically, based on client reporting and physical examination, and can also be assessed by a limited number of laboratory tests. Drug toxicities generally fall into one of the following 3 categories:

- **Mild toxicities** do not require discontinuation of therapy or drug substitution, and symptomatic treatment may be given (for example, antihistamines for a mild rash).
- **Moderate or severe toxicities** may require substitution with a drug in the same ARV class but with a different toxicity profile, or with a drug in a different class, but do not require discontinuation of all ART.
- **Severe life-threatening toxicities** require discontinuation of all ARV drugs, and the initiation of appropriate supportive therapy until the client is stabilised and the toxicity is resolved. NNRTIs have a longer half-life than NRTIs, and stopping all first-line drugs simultaneously may result in exposure to sub-therapeutic levels of the NNRTI and subsequently to the development of NNRTI resistance. However, if a child has a life-threatening toxicity, all ARV drugs should be stopped simultaneously until the client is stabilised.

Refer to the *WHO Antiretroviral Therapy for HIV Infection in Adults and Adolescents, 2010 revision*, for additional information about dealing with toxicities or to a local HIV specialist.

## Considerations for adherence

Regardless of their severity, adverse reactions may affect adherence to therapy. A proactive approach to managing toxicity is recommended:

- Before initiating ART, discuss the potential side-effects.

- During the early stages of treatment, offer support during minor and moderate adverse reactions.

Many ARV drug toxicities are time-limited and resolve spontaneously even when the same ART regimen is continued.

## Treatment Failure

In the absence of viral load measurement, clinical criteria and CD4 count can be used to identify treatment failure. Therefore, when treatment failure is suspected, confirm that:

- The client has been on ART for at least 24 weeks. The client has been adherent, that is, that he or she has taken nearly all of his ARVs exactly as prescribed. If adherence has not been optimal, then the first course of action is to keep the client on the same regimen, but counsel and support adherence (see *Appendix 4C: Adherence Assessment Guides and Recording Forms*).
- Any inter-current infection or major clinical event has been treated and resolved.
- IRIS has been excluded.

When treatment failure is confirmed (see box below), switching to a new second-line regimen becomes necessary. In the absence of viral load testing, suspected treatment failure should be referred to the most senior/experienced treatment provider for assessment.

### Treatment failure

Where available, confirm treatment failure with viral load testing. Viral load is the only marker that accurately identifies clients with **virologic failure** or suppression. **Clinical** and **immunologic** criteria can raise the suspicion of virologic failure and be useful to prompt further investigation and help clinical decision making in the absence of viral load monitoring.

**Clinical criteria of treatment failure:** New or recurrent stage 4 event at least 6 months after starting ART

- Condition must be differentiated from immune reconstitution inflammatory syndrome (IRIS)
- Certain WHO stage 3 conditions can also indicate treatment failure, such as pulmonary TB and some severe bacterial infections

**Immunological criteria of treatment failure:**

- Developing or returning to the following immunologic threshold after at least 24 weeks on ART in a treatment-adherent client:
  - CD4 count of <100
- Note: Rule out concomitant infection as a cause of transient CD4 cell decrease or slow increase

**Virological criteria of treatment failure:**



- Virologic failure is defined as VL >5000 copies/ml\*.
- If viral load is not available, consult the multidisciplinary team or HIV Specialist for joint decision to either initiate 2<sup>nd</sup> line therapy or monitor the client using clinical and immunologic indicators.

\* For additional information on virologic failure, see the WHO Antiretroviral Therapy for HIV Infection in Adults and Adolescents. Recommendations for a Public Health Approach, 2010 revision.

## Session 4.2 Teaching, Mentoring, and Skills Transfer

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### Session Objective

**After completing this session, participants will be able to:**

- Practice the 5A's, as part of the WHO's Integrated Management of Adolescent and Adult Illness (IMAI) approach to chronic care.

### Using the 5 "A's" in Consultations with Clients

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The 5 "A's" are part of the WHO IMAI guidelines on working with clients with chronic conditions, including HIV. The 5 "A's" are a series of steps to use during client consultations: ASSESS, ADVISE, AGREE, ASSIST, and ARRANGE.

Nurses can use the 5 "A's" when providing clinical and psychosocial care and support to clients. Nurse mentors and educators can also use the 5 "A's" as a teaching framework for their mentees, to help them structure clinical visits.

**Table 4.6: Using the 5 "A's" during clinical visits with PLHIV**

The 5 "A's"	More Information	What the Nurse Might Say to the Client
<b>ASSESS</b>	<ul style="list-style-type: none"> <li>• Assess the client's goals for the visit</li> <li>• Asses the client's clinical status, classify/identify relevant treatments and/or advise and counsel</li> <li>• Assess risk factors</li> <li>• Assess the client's knowledge, beliefs, concerns, and behaviours</li> <li>• Assess the client's understanding of the care and treatment plan</li> <li>• Assess adherence to care and treatment</li> <li>• Acknowledge and praise the client's efforts</li> </ul>	<ul style="list-style-type: none"> <li>• <i>What would you like to address today?</i></li> <li>• <i>What can you tell me about _____?</i></li> <li>• <i>Tell me about a typical day and how you deal with _____?</i></li> <li>• <i>Have you ever tried to _____? What was that like for you?</i></li> <li>• <i>To make sure we have the same understanding, can you tell me about your care and treatment plan in your own words?</i></li> <li>• <i>Many people have challenges taking their medicines regularly. How has this been for you?</i></li> </ul>

<b>ADVISE</b>	<ul style="list-style-type: none"> <li>• Use neutral and non-judgemental language</li> <li>• Correct any inaccurate knowledge and complete gaps in the client's understanding</li> <li>• Counsel on risk reduction</li> <li>• Repeat any key information that is needed</li> <li>• Reinforce what the client needs to know to manage his or her care and treatment (for example, recognising side effects, adherence tips, problem-solving skills, when to come to the clinic, how to monitor one's own care, where to get support in the community, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>• <i>I have some information about ____ that I'd like to share with you.</i></li> <li>• <i>Let's talk about your risk _____. What do you think about reducing this risk by _____.</i></li> <li>• <i>What can I explain better?</i></li> <li>• <i>What questions do you have about _____?</i></li> </ul>
<b>AGREE</b>	<ul style="list-style-type: none"> <li>• Negotiate WITH the client about the care and treatment plan, including any changes</li> <li>• Plan when the client will return</li> </ul>	<ul style="list-style-type: none"> <li>• <i>We have talked about a lot today, but I think we've agreed that _____. Is that correct?</i></li> <li>• <i>Let's talk about when you will return to the clinic for _____.</i></li> </ul>
<b>ASSIST</b>	<ul style="list-style-type: none"> <li>• Provide take-away information on the plan, including any changes</li> <li>• Provide psychosocial support, as needed</li> <li>• Provide referrals, as needed (support groups, peer support, etc.)</li> <li>• Address any problems or challenges the client is facing</li> <li>• Help the client come up with solutions and strategies that work for him/her</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Can you tell me more about any challenges you've faced with _____(for example, taking your medicines regularly, seeking support, practising safer sex)?</i></li> <li>• <i>How do you think we can solve this problem/challenge?</i></li> <li>• <i>What questions can I answer about _____?</i></li> <li>• <i>I want to make sure I explained things well — can you tell me in your own words about _____?</i></li> </ul>
<b>ARRANGE</b>	<ul style="list-style-type: none"> <li>• Arrange a follow-up appointment</li> <li>• Arrange for attendance in support groups or group education sessions, etc.</li> <li>• Record what happened during the visit</li> </ul>	<ul style="list-style-type: none"> <li>• <i>I would like to see you again in ____ for _____. It's important that you come for this visit, or let us know if you need to reschedule.</i></li> <li>• <i>What day/time would work for you?</i></li> </ul>

Source: WHO. 2004. *General Principles of Good Chronic Care: IMAI. Guidelines for First-level Facility Health Workers.*

### Exercise 1: The Package of Care for PLHIV: Case studies and large group discussion

<b>Purpose</b>	<ul style="list-style-type: none"> <li>• To review clinical care and treatment of PLHIV according to WHO and national guidelines, using the 5 “A’s” as an approach to client consultation</li> </ul>
<b>Instruction</b>	<p><b>Case Studies and Large Group Discussion</b></p> <ol style="list-style-type: none"> <li>1. Participants should review the case studies written in the Participant Manual. Participants should also refer to the case studies in Session 2.2. The case studies in this exercise build on these previous ones and include some of the same characters.</li> <li>2. Participants should refer to Table 4.3: Using the “5A’s”, as guidance during this exercise.</li> </ol>

	<p>3. Participants should apply the 5 “A’s” to each case study, by responding to the following questions:</p> <ul style="list-style-type: none"> <li>• <i>Assess: what are the key points inferred from the assessment ? (participants may have to make inferences from the case study)</i></li> <li>• <i>Advise: how should the client be advised?</i></li> <li>• <i>Agree: what are the key points that should be negotiated with the client?</i></li> <li>• <i>Assist: how should the client be assisted?</i></li> <li>• <i>Arrange: what services or follow-up appointments need to be arranged and what should be recorded in the notes?</i></li> </ul>
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**Exercise 1: The Package of Care for PLHIV: Case studies and large group discussion**

**Case Study 1:**

Recall S\_\_ from the case study in Session 2.2. Since S\_\_ found out she was HIV-infected 8 months ago, she has not attended your clinic again until today. This afternoon, she arrives looking thin and tired — much different than she looked the last time you saw her. Her CD4 count is currently 375. How do you proceed with S\_\_ using the 5 “A’s”?

**Case Study 2:**

Two months later, S\_\_ comes back to your clinic. She is still weak and thin, but looks much better then before and her weight has increased. You determine that her CD4 count is 250 and she is in clinical stage 3. She was prescribed CTX last time she was at the clinic and has not missed any doses. You have invited S\_\_ for an adherence preparation session. You realize that S\_\_ has some friends and family members on ART, so she may already know some information. How do you proceed with S\_\_ using the 5 “A’s”??

**Case Study 3:**

During her first follow-up visit after initiating ART, S\_\_ states that she has missed 3 doses of her medications in the last month. S\_\_ thinks that taking the doses most of the time is good enough. She also tells you that she thinks the pills are making her sick and more tired. She wants to stop taking them completely and is considering consulting a traditional healer instead. How do you proceed with S\_\_ using the 5 “A’s”??

## Session 4.3 Additional Learning Activities and Resources

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### Session Objective

**After completing this session, participants will be able to:**

- Describe independent and supplemental learning activities for the module.

### Independent Learning Activities

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Ask participants to work in small groups and review the following documents:

- WHO. 2010. *Antiretroviral Therapy for HIV Infection in Adults and Adolescents. Recommendations for a Public Health Approach*, 2010 revision.
- WHO. 2007. *Integrated Management of Adolescent and Adult Illness and Integrated Management of Childhood Illness. Chronic HIV Care with ARV Therapy and Prevention: Interim Guidelines for Health Workers at Health Centre or District Hospital Outpatient Clinic*. Geneva, Switzerland: WHO.
- WHO. 2006. *Guidelines on Co-Trimoxazole Prophylaxis for HIV-Related Infections among Children, Adolescents and Adults in Resource-Limited Settings: Recommendations for a Public Health Approach*. Geneva, Switzerland: WHO.

Then, ask participants to choose one or more of the following learning activities:

- Co-facilitate a PLHIV support group at your clinic, to get a better understanding of clients' needs and expectations of HIV care and treatment. Summarize what you learned in a brief paper and present it at the next training session.
- Facilitate a "lunch and learn" discussion with other members of the multidisciplinary care team, and brainstorm about what factors related to the client, the community, and the healthcare system most affect clients' adherence. Discuss how to creatively overcome these challenges. Summarize the outcomes of the discussion in a brief paper and present it at the next training session.
- Write a brief paper describing some teaching strategies you might implement as a nurse mentor and educator to help your mentees effectively counsel their clients about adherence to care and treatment.
- Conduct a lunchtime case discussion with other healthcare workers, on various HIV management topics, such as:
  - Common opportunistic infections in PLHIV—their diagnosis and treatment.
  - When to switch therapies (e.g., clinical failure, toxicity, pregnancy, etc.).

- Immune Reconstitution Syndrome.
- Adherence counseling.
- Complicated cases seen recently.

## Session 3.4

## Action Planning

### Session Objective

**After completing this session, participants will be able to:**

- Discuss some of the systems challenges that may arise in nurse mentoring and potential solutions through the use of case studies.

### Nurse Mentors and Educators' Role in Strengthening Healthcare Systems

- Nurse mentoring is not only about teaching clinical skills. Nurse mentors and educators must also act as advocates to strengthen existing systems, in order to ensure quality care and treatment services for their clients.
- Nurse mentors and educators may not always have the resources necessary to overcome certain hurdles that they encounter, but they are well positioned to identify problems and help think of solutions for systems problems in healthcare settings.
- The nurse mentor and educator's role as an advocate is vital. Nurse mentors and educators can bring important clinic issues to the clinic administration's attention and discuss options for increasing quality care for clients.
- Nurse mentors and educators can also seek out means of redressing problems by discussing issues with their colleagues and/or through meetings with clinic staff and leaders. This provides a forum for staff to discuss challenges and problems they are facing in the clinic, such as bottlenecks in client flow, staffing issues, etc. These meetings are also a platform for implementing quality improvement projects.

#### Exercise 2: Overcoming Obstacles to Nurse Mentoring in Healthcare Systems: Case studies in small groups and large group discussion

<b>Purpose</b>	<ul style="list-style-type: none"><li>• To develop site-specific strategies for reducing systems barriers to nurse mentoring in the clinic setting</li></ul>
<b>Instruction</b>	<p><b>Part 1: Case Studies and Small Groups</b></p> <ol style="list-style-type: none"><li>1. The trainer will begin the exercise by breaking participants up into small groups of 4-5 people. Participants from the same clinic should work together.</li><li>2. Participants can refer to <i>Appendix 4E: Action Plan Worksheet</i> as guidance during this exercise.</li><li>3. Participants should read the case studies written in the Participant Manual.</li><li>4. Participants will be asked to identify and summarize the main problem with the clinic's systems in each of the case studies.</li><li>5. Participants will then be asked to think of a "system" solution that nurse mentors and educators might be able</li></ol>

	<p>to implement, in response to each problem. Participants can use the following questions as a guide:</p> <ul style="list-style-type: none"> <li>• <i>What will we do about this problem?</i></li> <li>• <i>What do we want to achieve?</i></li> </ul> <p>6. Participants should remember that good solutions are “SMART,” or:</p> <ul style="list-style-type: none"> <li>• <b>Specific:</b> It addresses the matter specifically</li> <li>• <b>Measurable:</b> It can be measured to determine whether it has been achieved.</li> <li>• <b>Achievable:</b> It is within the means and capacity of your group.</li> <li>• <b>Realistic:</b> It is practical and can be accomplished within a reasonable time frame.</li> <li>• <b>Time-bound:</b> The time period for reaching it is clearly specified.</li> </ul> <p>7. Participants will then be asked to list 1-3 specific strategies, activities, or “next steps” to achieve each solution.</p> <p>8. For each activity, the groups will be asked to discuss and answer the following questions:</p> <ul style="list-style-type: none"> <li>• <i>Who is responsible for this activity?</i></li> <li>• <i>When will you be able to implement this activity?</i></li> <li>• <i>What kind of support or resources (including funds) do you need in order to achieve this activity?</i></li> <li>• <i>Any other comments to note about this activity or strategy?</i></li> </ul> <p>9. Groups should use <i>Appendix 4E: Action Plan Worksheet</i> to record their plans.</p> <p><b>Part 2: Large Group Discussion</b></p> <p>10. Each small group will be asked to present their solution and action plan for one of the case studies.</p>
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**Exercise 2: Overcoming Obstacles to Nurse Mentoring in Healthcare Systems: Case studies in small groups and large group discussion**

**Case Study 1<sup>2</sup>:**

You are a nurse mentor at your busy community clinic. The waiting area is always crowded and the lines are very long. Your mentee’s priority is often seeing clients as quickly as possible. It is becoming increasingly difficult to teach effectively under these conditions.

- *What is the “system” problem?*
- *What is your solution?*
- *What are your next steps?*

**Case Study 2:**

You notice that your mentee and some of the other multidisciplinary team members seem to be suffering from low morale and a lack of motivation in their work. You also notice that your mentee seems “burned out” and often



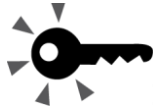
has an indifferent and sometimes insensitive attitude towards clients.

- *What is the “system” problem?*
- *What is your solution?*
- *What are your next steps?*

**Case Study 3:**

While you are working as a nurse mentor, you notice that your mentee and other healthcare workers are not always documenting the necessary clinical information in the client’s medical record. For example, you notice there is a lack of consistent documentation of weight amongst all the client records. On one occasion, during bedside teaching, your mentee failed to notice the beginning of wasting syndrome because she was not paying close attention to trend in weight.

- *What is the “system” problem?*
- *What is your solution?*
- *What are your next steps?*



## **Module 4: Key Points**

- To be effective, the package of care for PLHIV must ensure:
  - Integration of services.
  - That there is an emphasis on both care and treatment, and retaining clients not eligible for ART in care.
  - That services are family-centred.
- Key components of comprehensive care for PLHIV include the following:
  - Conduct physical examination and confirm stage of HIV disease.
  - Prevent, diagnose and treat OIs and other concomitant conditions, including tuberculosis.
  - If eligible, provide ART (if  $CD4 \leq 350$  or stage 3 or 4) and CTX (if  $CD4 < 350$  or stage 2, 3 or 4) as well as adherence monitoring and support.
  - Provide the client and his or her family with psychosocial assessment, counselling, education and support, and provide referral for follow up.
  - Discuss findings, advise and guide.
- As nurses, 2 of our most important tasks are to provide adherence preparation counselling and ongoing adherence support to our clients.
- When helping clients prepare for ART, nurses should always address the ARE YOU COMMITTED and then the WHO, WHAT, WHEN, WHERE and HOW of the medications.
- Routine adherence assessments help identify and solve specific adherence challenges in a timely manner.
- The 5 “A’s” are part of the WHO IMAI guidelines on working with clients with chronic conditions, including HIV. Nurses can use the 5 “A’s” when providing clinical and psychosocial care and support to clients. Nurse mentors and educators can also use the 5 “A’s” as a teaching framework for their mentees.
- Nurse mentoring is not only about teaching clinical skills. Nurse mentors and educators must also act as advocates to strengthen existing systems, in order to ensure quality care and treatment services for their clients.
- Nurse mentors and educators may not always have the resources necessary to overcome certain hurdles that they encounter, but they are well positioned to identify problems and help think of solutions for systems problems in healthcare settings.

## Appendix 4A: Clinical and Laboratory Monitoring for PLHIV

Laboratory tests for diagnosis and monitoring	Baseline (at entry into care)	At initiation of first- or second-line ART regimen	Every 6 months	As required or symptom directed
HIV Antibody testing	✓			
Haemoglobin <sup>a</sup> (and white cell count, if available) or FBC	✓	✓		✓
LFT <sup>c</sup> and RFT	✓			✓
CD4 cell count <sup>d</sup>	✓	✓	✓	✓
Creatinine Clearance <sup>e</sup>	✓	✓		✓
ALT and/or AST <sup>f</sup>	✓			
Urinalysis	✓			
Pregnancy testing in females <sup>gh</sup>		✓		✓
Full chemistry (including, but not restricted to, liver enzymes, renal function, glucose, lipids, amylase, lipase and serum electrolytes) <sup>i</sup>		✓		✓
HIV VL measurement <sup>jk</sup>				✓
Hepatitis B and C status (where available)	✓			
RPR	✓			✓
OI screening (where possible)	✓	✓	✓	✓
Sexually active females: PAP smear (if unavailable, then visualisation with acetic acid screening) or refer to next level of care for PAP smear <sup>l</sup>	✓			✓
If available, chemistry panel to include glucose, cholesterol, triglycerides	✓			

- a. Monitor haemoglobin at week 4 and 12 after initiation of ART if AZT is used.
- b. FBC can be repeated at initiation of ART if last FBC was done at least 3 months prior. If FBC is not available at baseline, conduct haemoglobin measurement.
- c. Liver function tests (LFT e.g. liver enzymes) are recommended during the first few months of treatment in children receiving NVP who have signs of hepatitis or hepatotoxicity, who are co-infected with hepatitis viruses, or who are on hepatotoxic medications. Based on data in adults on ART, routine monitoring of LFTs is unlikely to be cost-effective.
- d. HIV-infected children not yet eligible for ART should be monitored with CD4 count every six months. For infants and children who develop new or recurrent WHO stage 2 or 3 events, or whose CD4 count approaches threshold values, the frequency of CD4 measurement can be increased. %CD4+ is preferred in children <5 years of age.
- e. Repeat creatinine clearance 12 weeks, 6 months and then yearly after initiating ART.

- f. Conduct ALT and/or AST in clients initiated on NVP-containing regimen or those testing HBsAg positive. Monitor closely in the first 12 weeks of initiating a NVP-containing regimen.
- g. Pregnancy testing needed for sexually active females prior to initiating a regimen containing EFV.
- h. For pregnant females, provide prophylaxis or combination ART to those who are in need of it for their own health and/or to prevent vertical transmission. (See WHO PMTCT Guidelines, 2010) [102]
- i. Routine monitoring (every six months) of full chemistry, particularly lipid levels, liver enzymes and renal function, should be considered for infants and children on second-line drugs and LFTs for those on NVP.
- j. At present, VL measurement is not a prerequisite for initiation or regular monitoring of ART in resource-limited settings. VL can be used to diagnose HIV infection, and to confirm clinical or immunological failure prior to switching treatment regimen.
- k. If possible VL should be assessed in infants on NNRTI-based regimens who are known to have been exposed to NNRTIs intrapartum or through breastfeeding every 6 months.
- l. Repeat PAP or visual screen at 6 months and if normal, every 12 months

Source: Zambia Ministry of Health, ICAP, and FXB (2011). *Adolescent HIV care and treatment: A training curriculum for multidisciplinary healthcare teams (trainer and participant manuals)*. Lusaka, Zambia and NY, NY: MOH & ICAP.

## Appendix 4B: Psychosocial Assessment Guide and Recording Form

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### How to Use the Psychosocial Assessment Guide

This psychosocial assessment guide was developed to support a range of providers (trained counselors, lay counselors, peer educators, expert clients, mother mentors, doctors, nurses, pharmacists, community health workers, and others) who work with PLHIV and their families. Conducting a psychosocial assessment with each client helps to learn more about his or her specific situation, to prioritize needs, and to give direction to ongoing counseling and psychosocial support. This includes referrals for needed community and home-based services. The psychosocial assessment guide should be adapted to reflect national care and treatment guidelines, as well as the specific clinic, community, and cultural contexts in which they are used. It may be helpful to translate the guide into the local language.

A psychosocial assessment should be conducted with **each client after enrollment in HIV care services**. Health workers may want to conduct another psychosocial assessment or revisit specific psychosocial issues when a client's situation changes in a significant way, such as after a client gives birth. Always respect client confidentiality and conduct sessions in a space that offers visual and auditory privacy. Key information from the psychosocial assessment should be recorded on the form and kept in the client's file. A template to record follow-up counseling notes is also included.

Completed psychosocial assessment forms should be kept in the client's file and referred to during follow-up visits. While many HIV care and treatment programs do not keep client files, psychosocial assessments and documentation of psychosocial issues are very important parts of quality, continuous care and client-centered counseling. If individual client files are not maintained at the clinic, this guide can also be used as a job aide to help providers assess psychosocial needs and provide follow-up counseling and referrals.

**Basic information:** Write down the client's name and file number. Be sure to sign and date the form at the end of each session and ensure that the form is kept in the client's clinic file.

**Questions to ask the client:** The questions in these sections allow the health worker to discuss and assess the client's psychosocial issues and needs. Different questions are suggested for different topic areas, including: coping, support system, disclosure, and partner and family testing. It is important to allow time for the client to respond to each question. Clients should always be made to feel comfortable expressing psychosocial challenges and should never be judged or punished. Write down any important information from their responses, as this will help decide on effective next steps, important areas for follow-up, and in supporting the client's psychosocial wellbeing over the long term.

**Questions, summary, and next steps:** Ensure that the client has time to ask questions and that the provider has time to summarize the session and agreed upon next steps. Record key next steps in the space provided.

**Additional notes:** Write any additional notes about the session, the client's psychosocial needs, or next steps in the space provided.

**Referrals made:** Linkages and referrals to psychosocial support services are important elements of quality HIV care and treatment programs and the ongoing support of clients and their families. Each clinic should have an up-to-date list of community support services (such as mother's support groups, home-based care programs, adherence supporters, PLHIV associations, food support, legal support, etc.) and formal two-way referral systems to these organizations and services. Clients with severe psychosocial and psychological issues (such as depression, use of drugs and alcohol, feeling suicidal) will require careful follow-up and immediate referrals and linkages to ongoing professional counseling and other services. Record any referrals made to the client in the space provided. At the next session, follow up to determine if the client accessed these referral services.

**Date of next counseling session/clinic appointment:** Schedule a follow-up counseling appointment with the client and record this date, as well as any clinic appointments, in the space provided.

## Psychosocial Assessment Form

**Client's Name:** \_\_\_\_\_

**Client's File#:** \_\_\_\_\_

### Coping, Support System, and Disclosure

1. Now that you know your HIV-status, what feelings or concerns do you have?	
2. Can you tell me how things have been going since you learned your HIV-status? How are you coping?  <i>Explore and discuss client's coping strategies</i>	
3. Who can you go to for emotional support?	
4. How often in the last week have you used cigarettes, alcohol, or other drugs to help you cope?  <i>Assess for harmful coping strategies, such as drug/alcohol use, and provide counseling/ referrals</i>	
5. Have you disclosed your HIV-status to anyone?  <i>Counsel on full and partial disclosure</i>	Yes No
5a. If yes, to whom? What was their reaction?	
5b. If no, how do you feel about disclosing to someone whom you trust? What support do you need?	
6. Do you belong to a community organization, support group, or religious group that gives you the support you need?	Yes No Name/location of organization or group:
6a. Would you be willing to join a support group at this clinic or in the community?  <i>Give information about support groups</i>	Yes No
7. Have you experienced or do you fear stigma, discrimination, or violence because of your HIV- status or other reasons?  <i>Counsel and discuss available support services</i>	Yes No Details:
7a. If you experience stigma, discrimination, or violence, or are afraid you will, what do you think you will do?  <i>Counsel on available support services</i>	
8. Do you have a regular source of income or do you receive help, such as social grants, food parcels, or anything else?  <i>Counsel and refer to social worker and</i>	Yes No Sources of income/support:  Receiving social grant? Yes No

<i>community-level support</i>	
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**Plans for Care**

10. Other than coming to this clinic, do you go to other places for health services (e.g. other clinics, traditional healers, etc.)?	
11. How will you remember to take your medications every day? How will you remember when to come back to the clinic? Is there someone who can help you?  <i>Counsel on adherence to care and medicines</i>	
12. What do you think are the most important things you can do to care for yourself?  <i>Counsel on retention in care and attending all clinic appointments</i>	
15. Would it be ok if we called you (or someone you trust) if you miss an appointment at the clinic? Would it be ok if we visited you at home?	Consent for phone call:      Yes    No Phone number (own/other's?): Consent for home visit:      Yes    No Detailed address:

**Partner and Family Testing**

16. Can you tell me who lives with you at home?  <i>Counsel on family-testing, care, and treatment</i>	Name: _____ Age: _____ Relationship: _____  Name: _____ Age: _____ Relationship: _____  Name: _____ Age: _____ Relationship: _____  Name: _____ Age: _____ Relationship: _____
17. For the children who live with you, can you tell me if each has been tested for HIV and what the test result was?  <i>Counsel on HIV testing for all children, even if they seem well, and importance of early care and treatment for HIV-infected children</i>	Name: _____ Age: _____ Tested: Yes No Result: pos neg If positive, in care and tx: Yes No  Name: _____ Age: _____ Tested: Yes No Result: pos neg If positive, in care and tx: Yes No  Name: _____ Age: _____ Tested: Yes No Result: pos neg If positive, in care and tx: Yes No
18. Do you have a sexual partner(s) now?	Yes No
18a. If yes, has your partner been tested for HIV? What was the result?  <i>Counsel on partner testing and discordance</i>	Partner tested?                      Yes    No    Don't know Partner's test result?              Positive    Negative    Don't know If positive, in care and tx?      Yes    No    Don't know



18b. If no, do you think your partner would be willing to come for an HIV test?	Yes No Don't know
18c. If yes, can you tell me how you and your partner(s) practice safer sex?	

**Questions, Summary, and Next Steps**

19. What other questions or concerns do you want to discuss today?	
20. <i>Summarize the session and review immediate plans and next steps, including the next clinic visit date</i>	Note next steps here and in the space below:

**Notes:**

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**Referrals made:**

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**Date of next counseling session/clinic appointment:**

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**Provider's signature:** \_\_\_\_\_ **Date:**

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Source: International Center for AIDS Care and Treatment Programs. (2010). *Improving Retention, Adherence, and Psychosocial Support within PMTCT Services, Implementation Workshop: A Toolkit for Health Workers*.

## Appendix 4C: Adherence Assessment Guide and Recording Forms

### How to Use the Adherence Assessments

These adherence assessment guides were developed to support a range of providers (trained counselors, lay counselors, peer educators, expert clients, mother mentors, doctors, nurses, pharmacists, community health workers, and others) who work with PLHIV and their families. Routine adherence assessments help identify and solve specific adherence challenges in a timely manner. The adherence assessment guides should be adapted to reflect national HIV care and treatment guidelines, as well as the specific clinic, community, and cultural contexts in which they are used. It may be helpful to translate the guides into the local language.

#### Included in this guide are 2 adherence assessments:

- The *Adherence Preparation/Support Assessment for Clients Starting ART* can be used to assess adherence readiness and help clients to develop a personal adherence plan. The assessment questions should be used to identify areas where the client may need additional information and support.
- The *Adherence Assessment for Clients Taking ART* can be used at every follow up and refill visit to ensure that the client understands the care and medication plan and is taking his or her medicines the correct way, every day. The assessment questions should be used to identify areas where the client may need additional information and support.

Completed adherence assessment forms should be kept in the client's file and referred to at follow-up visits. If individual client files are not maintained at the clinic, these guides can be used as job aides to help providers when counseling clients. The completed assessments can then be given to clients to keep with their health card, which is brought to each clinic visit.

**Basic information:** Write the client's name and file number at the top of the form. Then, tick the box corresponding to the type of visit. Be sure to sign and date the form at the end of each session, and ensure that the form is kept in the client's clinic file.

**Questions to ask the client:** The questions in this section allow the health worker to discuss and assess adherence. It is important to allow time for the client to respond to each question. Clients should always be made to feel comfortable expressing adherence challenges and should never be judged or punished. Remember to write down any important information from their responses, as this will help decide on effective next steps, know important areas for follow-up, and support the clients' adherence over the long term.

#### Other assessment measures and next steps:

This is the section where nurses will plan with the client to ensure that he or she keeps up good adherence or develops strategies to improve adherence.

- **Other adherence assessment measures:** Depending on standard procedures at the clinic, the health worker may do a pill count and/or review the client's medicine diary or calendar. Record the results in the space provided.
- **Specific adherence challenges identified by client and health worker:** Based on the answers to the questions asked in the first section of this form, discuss the specific challenges to adherence that the client is having. Together, discuss possible solutions to each challenge.
- **Referrals made:** If there is an outside organization, such as a support group or a home-based care program, that could help support the client to overcome his or her challenges to adherence, refer the client to that organization or service and indicate the name and specific service in this part of the form. In some cases, the client may need to be referred for other facility-based services, such as an appointment with a trained counselor or a session with the pharmacist to explain dosing.
- **Next steps and follow-up plan:** Together with the client, identify which solutions and next steps he or she thinks are feasible and manageable. For each solution, list the necessary steps the client or health worker will need to take and a time line for each. Also, make an appointment for a follow-up visit and record the date on the form. This section of the form can be used as a starting point for the adherence assessment during follow-up visits.

## Adherence Preparation/Support Assessment for Clients Starting Lifelong ART

**Client's Name:** \_\_\_\_\_

**Client's File#:** \_\_\_\_\_

1. Can you tell me about the group or one-on-one counseling sessions you have had here at the clinic?	
2. Can you explain why you need to take ART for your entire life?	
3. What do you expect from taking ART?	
4. How confident do you feel about taking medicines every day for your entire life?	
5. Can you tell me the names of the ARVs you will be taking and when you will take them (how many pills, what times of day)?	
6. Can you tell me some possible side effects of your ARVs? What will you do if you have side effects?	
7. Can you explain what happens if you do not take all of your ARVs every day, at the same time, for your entire life?	
8. Is there someone who can help you come to the clinic for appointments and help you take your medicine every day? What is their contact information?	
8a. Has he/she been to the clinic with you?	
9. Do you think you will have any problems coming to this clinic for your appointments?	
10. How will you remember to come for your clinic appointments?	
11. How will you remember to take your medicines the right way, at the same time, every day?	
13. Are you taking any medicines - other than the ones prescribed to you by the doctor or nurse (including traditional or herbal medicines)?	
14. Where will you store your medicines?	
15. What will you do if you are about to run out of your medicine(s)? What about if you will be away from home?	
16. What will you do if you miss a dose of your medicine?	

17. Do you have any questions about the plan for your care or your medicines?	
---	--

**Client requires more counseling and support in these areas (LIST):**

**Provider's signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

<p><b>Date of counseling session:</b> _____</p> <p><b>Key issues and concerns discussed:</b></p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p><b>Next steps and areas for follow-up:</b></p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p><b>Provider's signature:</b> _____</p>
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Source: International Center for AIDS Care and Treatment Programs. (2010). *Improving Retention, Adherence, and Psychosocial Support within PMTCT Services, Implementation Workshop: A Toolkit for Health Workers*.


## Adherence Assessment for Clients Taking ART

Client's Name: \_\_\_\_\_

Client's File#: \_\_\_\_\_

Tick one:      2-week follow-up visit    1-month follow-up visit    monthly  
refill    3-month refill

**Questions to ask the client:**

1. Can you tell me more about how you took your medications this past month (or 2 weeks)? (Do you know the names of the medicines? How many pills do you take? At what time of day do you take them?)	
2. I would like you to think about the last 7 days. How many pills did you take late in the last 7 days?  What were the main reasons you took them late?	
3. How many pills did you miss in the last 7 days?  What were the main reasons you missed them?	
4. Which of these pictures best shows how many of your doses you took in the last month (or 2 weeks)? ( <i>circle one</i> )	
5. How did the medicines make you feel?	
6. Can you tell me about any changes you noticed (such as in your health) or challenges you had with your medicines?	
7. What support or reminders do you have to help you take your medicines at the same time, every day?	
8. What questions do you have about your care or your medicines?	

**Other assessment measures and next steps:**

Results of pill count, if applicable:	
Review of medicine diary or calendar, if applicable:	
Specific adherence challenges identified by client and nurse: ( <i>discuss possible solutions to each</i> )	

Referrals made:	
Next steps and follow-up plan:	Next appointment date: _____

**Notes:**

**Provider's signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

<p><b>Date of counseling session:</b> _____</p> <p><b>Key issues and concerns discussed:</b></p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p><b>Next steps and areas for follow-up:</b></p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p><b>Provider's signature:</b> _____</p>
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Source: International Center for AIDS Care and Treatment Programs. (2010). *Improving Retention, Adherence, and Psychosocial Support within PMTCT Services, Implementation Workshop: A Toolkit for Health Workers*.

## Appendix 4D: ARV Dosages for Post-pubertal Adolescents and Adults

Drug	Usual adult dosage	Notes
Efavirenz (EFV)	600 mg once a day Evening dosing on an empty stomach recommended initially to decrease side effects.	Contraindicated in 1st trimester of pregnancy.
Emtricitabine (FTC)	200 mg once a day, With or without food	Can be administered as a co-formulated product with TDF (Truvada) or with TDF and EFV (Atripla).  Adjust if CrCl <50 ml/min.
Lamivudine (3TC)	150mg twice daily 300 mg once a day	Can cause pancreatitis. Adjust if CrCl <50 ml/min.
Boosted Lopinavir (LPV/r)	400/100 mg twice a day, With or without food	Can cause hyperlipidemia, insulin resistance, pancreatitis, transaminitis, and/or fat redistribution
Nevirapine (NVP)	200 mg twice a day	Two-week lead-in recommended (200 mg once a day), as it reduces risk of rash and hepatotoxicity.  Can cause Stevens Johnson Syndrome, toxic epidermal necrolysis, hepatotoxicity (monitor ALT/AST first 12 weeks), liver failure, and hypersensitivity
Stavudine (d4T)	<ul style="list-style-type: none"> <li>Wt &gt;60 kg: 40 mg twice-daily</li> <li>Wt &lt;60 kg: 30 mg twice-daily</li> </ul> (WHO recommends and data supports 30 mg twice-daily, less toxic and equally effective.)	Contraindicated with AZT due to in vitro and in vivo antagonism.  Can cause peripheral neuropathy, lipoatrophy, hyperlipidemia, pancreatitis, lactic acidosis.  Adjust if CrCl <50 ml/min.
Tenofovir (TDF)	300 mg once a day, With or without food	Avoid TDF based regimen in clients with renal insufficiency (CrCl <50 ml/min).
Zidovudine (AZT)	300 mg twice a day, With or without food (often better tolerated with food)	Avoid AZT in clients with Hb <10 gm/dl (monitor Hb in the first 12 weeks). Can also cause neutropenia, myopathy, and lactic acidosis.  Adjust if CrCl <15 ml/min.

Source: WHO. 2010. *Antiretroviral Therapy for HIV Infection in Adults and Adolescents. Recommendations for a Public Health Approach*, 2010 revision., Annex 21.1



## Appendix 4E: Action Plan Worksheet

What is the problem?	What is your solution to this problem?	What are your strategies, activities, or “next steps” to achieve the solution?	What is your timeframe?	What resources or support are needed?	Comments
#1		1.			
		2.			
		3.			
#2		1.			
		2.			
		3.			
#3		1.			
		2.			
		3.			

## References and Resources

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<sup>1</sup> This section was adapted from Zambia Ministry of Health, ICAP, and FXB (2011). *Adolescent HIV care and treatment: A training curriculum for multidisciplinary healthcare teams (trainer and participant manuals)*. Lusaka, Zambia and NY, NY: MOH & ICAP.

<sup>2</sup> Case studies borrowed and adapted from: *Strategies for Addressing Real-Life Situations in Clinical Mentoring: Adult ART Clinics, I-TECH Clinical Mentoring Toolkit*.

# **Module 5      Preventing Mother to Child Transmission of HIV**

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**Session 5.1: Review of Key Competencies and Key Updates for Prevention of Mother to Child Transmission (PMTCT) of HIV**

**Session 5.2: Teaching, Mentoring, and Skills Transfer**

**Session 5.3: Additional Learning Activities**

**Session 5.4: Action Planning**

## **Learning Objectives**

**After completing this module, participants will be able to:**

- Understand changes to the PMTCT guidelines and how they should be applied in clinical settings.
- Describe routine antenatal care procedures for pregnant HIV-infected women.
- Review routine procedures during labour and delivery for pregnant HIV-infected women.
- Identify routine postpartum procedures for pregnant HIV-infected women.
- Review routine care procedures for HIV-exposed infants.
- Describe key updates in infant feeding practices.
- Describe the correct procedure for obtaining a Dried Blood Spot (DBS) specimen.
- Apply knowledge of PMTCT care to specific case studies.
- Discuss alternative and supplemental learning activities for the module.
- Develop a site-specific action plan to overcome barriers to PMTCT services at their specific clinics.

## Session 5.1      Review of Key Competencies and Key Updates for Prevention of Mother to Child Transmission (PMTCT) of HIV

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### Session Objectives

After completing this session, participants will be able to:

- Understand changes to the PMTCT guidelines and how they should be applied in clinical settings.
- Describe routine antenatal care procedures for pregnant HIV-infected women.
- Review routine procedures during labour and delivery for pregnant HIV-infected women.
- Identify routine postpartum procedures for pregnant HIV-infected women.
- Review routine care procedures for HIV-exposed infants.
- Describe key updates in infant feeding practices.
- Describe the correct procedure for obtaining a Dried Blood Spot (DBS) specimen.

### Overview of Prevention of Mother-to-Child Transmission of HIV (PMTCT)

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Mother-to-child transmission of HIV (MTCT) is the transmission of HIV from an infected mother to her baby during pregnancy, labour, delivery and breastfeeding. MTCT is also referred to as “**vertical transmission**” or “**perinatal transmission**”. MTCT can occur during:

- Pregnancy
- Labour and delivery
- Breastfeeding

PMTCT is a term used to describe a package of services intended to reduce the risk of MTCT. PMTCT interventions are integrated into routine maternal, child, and women’s health services.

Pregnancy in HIV-infected women appears to have little effect on the progression of HIV infection. However, pregnant women with HIV are at increased risk of preterm delivery, postpartum infections, and even infant death — these risks can be minimised by participation in comprehensive care.

Nurses and midwives should follow national guidelines, if applicable, when providing services to pregnant PLHIV, their partners, and family members. Some of the key PMTCT concepts are summarised below in Table 5.1.

**Table 5.1: Key PMTCT concepts**

<b>Key Concept 1 – Keep mothers healthy</b>
<ul style="list-style-type: none"><li>• The healthier the mother (the less HIV she has in her blood and the higher her CD4 cell count), the less likely it is that the baby will become HIV-infected. Conversely, the sicker the mother (a lot of virus in the blood and low CD4 cell count), the more likely it is that the baby will become HIV-infected.</li><li>• A healthy mother is able to take care of herself, her baby and her family. Without healthy mothers, we will not have healthy families or communities!</li></ul>
<b>Key Concept 2 – Reduce risk at every stage</b>
<p>The risk of passing HIV from a mother living with HIV to her baby depend on timing:</p> <ul style="list-style-type: none"><li>• During pregnancy, labour and delivery, about 20 out of 100 babies will get HIV if there are no ARVs or other services offered.</li><li>• During breastfeeding, about 12 out of every 100 babies in the absence of a PMTCT programme. This depends on how the baby is fed — mixed feeding in the first 6 months of life dramatically increases risk — and how long the baby is breastfed.</li><li>• <b>It is important to reduce the risk of transmission at each of these stages.</b></li></ul>
<b>Key Concept 3 – All mothers need ARVs</b>
<ul style="list-style-type: none"><li>• One of the best ways to lower the amount of HIV in the mother’s body, increase her CD4 cell count and make her healthy and less likely to pass HIV to the baby is for her to get the care and treatment she needs to be as healthy as possible, including ART. All pregnant women with HIV need to take ARVs.</li><li>• If a mother has a CD4 cell count <b>at or below 350</b>, the baby is at high risk of getting HIV. According to the WHO 2010 PMTCT guidelines, women with a CD4 cell count of 350 or lower should start ART and stay on ART for their entire lives.</li><li>• Women with a CD4 cell count above 350 should also get ARVs during pregnancy to prevent the baby from acquiring HIV.</li></ul>
<b>Key Concept 4 – All babies of HIV-infected mothers need ARVs and CTX</b>
<ul style="list-style-type: none"><li>• All babies need to take daily NVP at the time of birth and for the first 6 weeks of life, to help prevent them from becoming HIV-infected. If baby is breastfed and mother is not on ART, then the baby will continue taking daily NVP until one week after complete cessation of all breastfeeding. Babies of mothers on ART and those who are formula feeding, stop taking NVP at 6 weeks of age.</li><li>• Either the mother or the baby needs to be taking ARVs for the <b>entire time the baby is breastfeeding</b>. This helps protect the baby from getting HIV during breastfeeding.</li><li>• HIV-exposed babies need to take CTX starting at 6 weeks to prevent other infections that may make them very sick or lead to a rapid death. Babies should take CTX until it is certain that they are not HIV-infected.</li><li>• If the baby gets tested and is HIV-infected, the baby will also need</li></ul>

## lifelong ART.

Source: Table 5.1 was borrowed from International Center for AIDS Care and Treatment Programs (ICAP) (2011). *Improving Retention, Adherence and Psychosocial Support within PMTCT Services: A Toolkit for Health Workers*, New York, New York: Columbia University, ICAP.

## Key Updates for 2010 WHO Guidelines

### Key recommendations on eligibility for treatment

- The 2010 guidelines promote starting lifelong ART for all pregnant women with severe or advanced clinical disease (stage 3 or 4), or with a CD4 count at or below 350, regardless of symptoms.
- The new ART eligibility criteria are the same as those for adults in general.

### What ART regimen to initiate

- In the 2010 guidelines, the recommended first-line regimens for pregnant women are:

AZT + 3TC + NVP or  
AZT + 3TC + EFV or  
TDF + 3TC (or FTC) + NVP  
TDF + 3TC (or FTC) + EFV

### ARV prophylaxis

- The 2010 guidelines include two options for ARV prophylaxis, both of which should start earlier in pregnancy, at 14 weeks or as soon as possible thereafter:
  - Twice daily AZT for the mother and infant prophylaxis with either AZT or NVP for 6 weeks after birth if the infant is not breastfeeding.
  - If the infant is breastfeeding, daily NVP infant prophylaxis should be continued for 1 week after the end of the breastfeeding period.
  - A three-drug prophylactic regimen for the mother taken during pregnancy and throughout the breastfeeding period, as well as infant prophylaxis for six weeks after birth, whether or not the infant is breastfeeding.
- The recommended first-line prophylaxis regimens for pregnant women are:

AZT + 3TC + LPV/r  
AZT + 3TC + ABC  
AZT + 3TC + EFV  
TDF + 3TC (or FTC) + EFV

- Participants can refer to *Appendix 5A: ARV Protocols for Pregnant Women with HIV and their Infants* and *Appendix 5B: ARV Dosing Guide (Adult and Infant)* as guidance in their own practice or use these appendices as job aids with their mentees.

### Infant feeding

- National health authorities should decide whether health services will principally counsel and support HIV-positive mothers to either:

breastfeed and receive ARV interventions, **or** avoid all breastfeeding, as the strategy that will most likely give infants the greatest chance of HIV-free survival.

- In settings where national authorities recommend HIV-positive mothers to breastfeed and provide ARVs to prevent transmission, mothers should exclusively breastfeed their infants for the first 6 months of life, introducing appropriate complementary foods thereafter, and should continue breast-feeding for the first 12 months of life.
- Infant feeding is covered in more detail later in this session.

## Antenatal Care for HIV-Infected Women

All women attending ANC should routinely be given information and education about HIV, HIV testing, and the PMTCT programme. For many women, the offer of HIV counselling and testing during ANC will be the first time they are faced with deciding whether they want to know their HIV status.

The offer of HIV testing is routine for the first visit; women who test HIV-negative are routinely re-offered HIV testing at/after 32 weeks gestation. Women not tested and/or women not re-tested during ANC, should be tested during labour and delivery. Women not tested during ANC or during labour should be tested during postpartum care.

It is important that all mothers, and particularly HIV-infected mothers, get basic antenatal care (ANC). In addition to regular follow-up for pregnancy monitoring, routine care for HIV-infected women is outlined in Table 5.2 below.

**Table 5.2: ANC Services for Women Living with HIV**

ANC Service	Key Steps
<b>Opportunistic Infection (OI) prophylaxis</b>	<ul style="list-style-type: none"> <li>• Provide CTX prophylaxis based on national guidelines.</li> </ul>
<b>Tuberculosis</b>	<ul style="list-style-type: none"> <li>• Screen for TB using standard symptom screening tool (if more than two symptoms, investigate for TB):               <ul style="list-style-type: none"> <li>• Cough &gt; two weeks.</li> <li>• Sputum production, which may occasionally be blood stained.</li> <li>• Fever &gt;2 weeks.</li> <li>• Drenching night sweats &gt;2 weeks.</li> <li>• Weight loss ( &gt;1.5 kg in 4 weeks or poor weight gain in pregnancy).</li> <li>• Loss of appetite, malaise, or tiredness.</li> <li>• Shortness of breath or chest pain</li> </ul> </li> </ul>
<b>ARV therapy</b>	<ul style="list-style-type: none"> <li>• Assess readiness to initiate ARV.</li> <li>• <b>Provide ARV therapy to women with CD4 count ≤350 or WHO stage 3 and 4, regardless of stage of</b></li> </ul>

	<p><b>pregnancy</b> (see <i>Appendix 5A: ARV Protocols for Pregnant Women with HIV and their Infants</i> and <i>Appendix 5B: ARV Dosing Guide (Adult and Infant)</i>).</p> <ul style="list-style-type: none"> <li>• Provide adherence counselling.</li> <li>• Educate mother about importance of infant ARV prophylaxis.</li> </ul>
<b>ARV prophylaxis</b>	<ul style="list-style-type: none"> <li>• <b>If patient is not eligible for ARV therapy (CD4 count &gt;350 or WHO stages 1-2), assess readiness to initiate ARV prophylaxis</b> (see <i>Appendix 5A: ARV Protocols for Pregnant Women with HIV and their Infants</i> and <i>Appendix 5B: ARV Dosing Guide (Adult and Infant)</i>).</li> <li>• Provide ARV prophylaxis starting at 14 weeks gestation or as soon as possible thereafter.</li> <li>• Ensure baseline haemoglobin is &gt;8g/dl (if not, discuss results with a doctor before initiating AZT).</li> <li>• Provide adherence counselling.</li> <li>• Educate mother about importance of infant ARV prophylaxis.</li> </ul>
<b>Infant feeding</b>	<ul style="list-style-type: none"> <li>• All women require infant feeding information, counselling and support.</li> <li>• Assess if she will have any partner and family IF support, because it may affect how she will choose to feed her infant</li> <li>• Promote and support exclusive breastfeeding for first 6 months of life.</li> <li>• Link mother to breastfeeding or peer support groups, if available.</li> <li>• Demonstrate how she could discuss infant feeding with her partner and family members.</li> </ul>
<b>Nutrition</b>	<ul style="list-style-type: none"> <li>• Review weight and weight gain, if underweight or not gaining sufficient weight, screen for tuberculosis and then provide nutrition screening and assessment.</li> <li>• All pregnant women: provide nutrition education.</li> <li>• If eligible, provide targeted nutritional supplements.</li> <li>• If eligible and if appropriate, provide supplementary/replacement and therapeutic feeding.</li> <li>• If eligible and if appropriate, provide targeted food assistance and safety net programmes.</li> </ul>
<b>Counselling on safer pregnancy</b>	<ul style="list-style-type: none"> <li>• Provide women with information and instructions on seeking care early in their pregnancy.</li> <li>• Provide information on pregnancy complications such as: <ul style="list-style-type: none"> <li>• Bleeding</li> <li>• Fever &gt;38.0 C</li> <li>• Pre-eclampsia (swelling of hands and feet, severe headaches and blurred vision)</li> <li>• Severe pallor</li> <li>• Abdominal pain</li> </ul> </li> <li>• Teach about the importance of delivering in a health</li> </ul>



	<p>facility with nurses and midwives skilled in safer delivery practices, standard precautions and the administration of ARV therapy or prophylaxis to mother and child.</p> <ul style="list-style-type: none"> <li>• Provide counselling about the effects of drugs, alcohol, and smoking on growth and development of the foetus. Refer to treatment programmes if needed.</li> <li>• Assess if she has any questions or concerns about pregnancy, L&amp;D, or how she will feed her baby.</li> </ul>
<b>Counselling on HIV danger signs</b>	<ul style="list-style-type: none"> <li>• Provide women with information on seeking healthcare for symptoms of HIV disease progression, such as opportunistic infections, chronic persistent diarrhoea, candidiasis, fever or wasting.</li> </ul>
<b>Partners and family</b>	<ul style="list-style-type: none"> <li>• Stress and lack of support have been linked to progression of HIV infection.</li> <li>• Refer women, partners and families to community-based support clubs or organisations where available.</li> <li>• Encourage partner counselling and testing.</li> <li>• Assess need to counsel and test other children.</li> </ul>
<b>Effective contraception planning</b>	<ul style="list-style-type: none"> <li>• Counsel about correct and consistent use of condoms during pregnancy to prevent infection with other STIs, which can increase the rate of MTCT.</li> <li>• Provide family planning and contraception counselling — with partner involvement when possible.</li> <li>• Counselling should include the different types of methods available (barrier, hormonal, long-term and permanent), dual protection including condoms, when to start contraception, and possibilities of drug interactions (e.g. with antibiotics or TB medications).</li> <li>• Women living with HIV on ARV therapy can safely and effectively use all forms of contraceptives.</li> </ul>

Source: François Xavier Bagnoud (FXB) Center. 2010. *Comprehensive Paediatric HIV Care & Treatment Training Series: Module 2*, South to South Partnership for Comprehensive Family HIV Care and Treatment Program (S2S).

## Labour and Delivery

Standard obstetric practices apply to all women in labour and delivery, regardless of HIV-status. Additional considerations for HIV-infected women are outlined in Table 5.3 below.

**Table 5.3: ANC Services for Women Living with HIV During Labour and Delivery**

<b>L&amp;D Service</b>	<b>Key Steps</b>
<b>ARV administration</b>	<ul style="list-style-type: none"> <li>• Continue ARV therapy or ARV prophylaxis during labour and delivery according to national guidelines (see <i>Appendix 5A: ARV Protocols for Pregnant Women with HIV and their Infants</i> and <i>Appendix 5B: ARV</i></li> </ul>

	<p><i>Dosing Guide (Adult and Infant).</i></p> <ul style="list-style-type: none"> <li>• For mothers identified as HIV-infected, verify labour and ask the mother whether she took her NVP.</li> <li>• Some mothers may know their status from previous testing. Offer NVP if they say they are HIV-infected.</li> <li>• Offer HIV counselling and testing to women in labour whose HIV status is unknown.</li> <li>• Offer NVP if the first HIV rapid test is positive. The second rapid test and further counselling can be done after delivery. Since NVP has proven efficacy, is a WHO standard treatment, the risk to the baby of not giving it outweighs the concern that the labouring woman is unable to give informed consent.</li> </ul>
<b>Obstetric practices</b>	<ul style="list-style-type: none"> <li>• Standard obstetric practices apply to all women in labour and delivery, regardless of HIV-status.</li> <li>• Reduce MTCT by reducing foetal exposure to infected maternal blood and body fluids.</li> <li>• Caesarean section, when performed before the onset of labour or membrane rupture, has been associated with reduced MTCT in women with a high viral load. However, in many resource-limited settings, caesarean sections are not part of routine obstetric practice because they have been associated with increased maternal morbidity and mortality. Caesarean section should only be performed for obstetric indications.</li> </ul>
<b>HIV counselling and testing (for women of unknown HIV status)</b>	<ul style="list-style-type: none"> <li>• HIV counselling and testing during labour and delivery provides an opportunity for the mother and infant to receive the maternal and infant ARV prophylaxis regimens.</li> </ul>

Source: François Xavier Bagnoud (FXB) Center. 2010. *Comprehensive Paediatric HIV Care & Treatment Training Series: Module 2*, South to South Partnership for Comprehensive Family HIV Care and Treatment Program (S2S).

## Care of HIV Exposed Infants (HEIs)

PMTCT interventions reduce, but do not eliminate, the risk of HIV transmission from mother to infant. Regular follow-up care is critical for an infant born to a mother with HIV and for infants whose mothers' HIV status is unknown. This includes infants who have received ARV prophylaxis, because HIV exposure increases an infant's risk of illness and failure to thrive, whether or not the infant has HIV infection.

- The newborn should be seen in the healthcare facility or at home. It is recommended that subsequent visits be scheduled to coincide with the country recommended schedule for immunisations. WHO recommends subsequent visits as follows:
  - At ages 6, 10, and 14 weeks.

- Once a month from 14 weeks to 1 year.
- Review feeding options, NVP adherence, follow up PCR 6 weeks after cessation of breastfeeding and general health assessment.
- HIV rapid test at 18 months for all HIV Exposed Infants with prior negative test.
- Every 3 months from the ages of 1 to 2.
- Because the health of mother and child is so closely related, assessment of maternal health and nutrition should be concurrent with assessment of the infant and appropriate referrals for maternal care should be given during routine infant check ups.
- Encourage HIV-infected mothers to attend a final post natal visit at the time of infants 6 month clinic visit to ensure reassessment of her disease progression (CD4 count, WHO clinical staging, and TB screening), and transition her to another clinic as required.
- Anytime the infant becomes ill or the mother suspects a problem, seeking early medical intervention is strongly encouraged.

Table 5.4: Care of HIV Exposed Infants (HEIs), outlines the basic steps nurses and midwives should follow when caring for an HIV Exposed Infant.

**Table 5.4: Care of HIV Exposed Infants (HEIs)**

ANC Service	Key Steps
<b>Growth and development</b>	<ul style="list-style-type: none"> <li>• Assess for common illnesses and manage appropriately as directed by the WHO Integrated Management of Childhood Illness (IMCI) guidelines.</li> <li>• Identify non-specific symptoms or conditions that could be related to HIV infection using the HIV-adapted IMCI algorithms, if available.</li> <li>• Monitor growth and assess causes of growth failure.</li> <li>• Do developmental milestone screening at each visit.</li> <li>• Check immunisation status and immunise as indicated.</li> <li>• Provide Vitamin A at 6 months age and 6 monthly intervals thereafter.</li> <li>• Treat anaemia.</li> </ul>
<b>Opportunistic Infection (OI) prophylaxis</b>	<ul style="list-style-type: none"> <li>• Provide CTX prophylaxis, beginning at 6 weeks and continuing until DBS PCR test shows the infant has no HIV infection AND the baby is no longer breastfeeding.</li> <li>• Prevention and treatment of malaria.</li> </ul>
<b>ARV prophylaxis for the HIV-exposed infants</b>	<ul style="list-style-type: none"> <li>• Assess the infant at time of delivery for signs of HIV infection and initiate NVP or AZT prophylaxis (see <i>Appendix 5A: ARV Protocols for Pregnant Women with HIV and their Infants</i> and <i>Appendix 5B: ARV Dosing Guide (Adult and Infant)</i>).</li> </ul>
<b>Infant feeding support</b>	<ul style="list-style-type: none"> <li>• Assess and support a mother's choice about infant feeding.</li> <li>• Reinforce the importance of exclusive breast feeding</li> </ul>

	<p>for the first 6 months, no mixed feeding, breast health, dual protection, infant follow-up appointments, and BF support groups.</p> <ul style="list-style-type: none"> <li>• Assessment at 3 and 10 days post delivery to monitor feeding progress is strongly advised.</li> <li>• Assess diet for infants older than 6 months and provide appropriate counselling that considers locally available food, family circumstances and feeding customs.</li> <li>• Underlying infections should be treated immediately or ruled out as a cause of growth failure.</li> </ul>
<b>Nutrition</b>	<ul style="list-style-type: none"> <li>• <b>Provide nutrition education to all pregnant women</b></li> <li>• Review weight and weight gain, if underweight or not gaining sufficient weight, screen for tuberculosis and then provide nutrition screening and assessment.</li> <li>• All pregnant women: provide nutrition education.</li> <li>• If eligible, provide targeted nutritional supplements.</li> <li>• If eligible and if appropriate, provide supplementary or replacement and therapeutic feeding.</li> <li>• If eligible and if appropriate, provide targeted food assistance and safety net programmes.</li> <li>• Underlying infections should be treated immediately or ruled out as a cause of growth failure.</li> </ul>
<b>HIV testing</b>	<ul style="list-style-type: none"> <li>• Provide HIV PCR testing at 6 weeks and ensure that results are available at next visit.</li> <li>• Follow up HIV PCR test also to be done 6 weeks after cessation of any breastfeeding.</li> <li>• The infant's 6-week postnatal evaluation with DBS PCR sample collection should coincide with mother's important routine post natal visit.</li> <li>• HIV Rapid test at 18 months for all HIV Exposed Infants with prior negative test.</li> <li>• Every 3 months from the ages of 1 to 2.</li> </ul>
<b>Tuberculosis</b>	<ul style="list-style-type: none"> <li>• Screen and treat TB if indicated.</li> </ul>

Source: François Xavier Bagnoud (FXB) Center. 2010. *Comprehensive Paediatric HIV Care & Treatment Training Series: Module 2*, South to South Partnership for Comprehensive Family HIV Care and Treatment Program (S2S).

## **Dried Blood Spot (DBS) Specimen Collection**

The challenge in resource-limited settings is identifying HIV-infected infants and providing early access to this life- saving medicine. Recently, however, a new technology has emerged that allows PCR to be performed on small spots of dried blood. The Dried Blood Spots (DBS) are easy to prepare in a resource-limited setting and can be stored and shipped to testing facilities without refrigeration. Infants can be tested using PCR as early as 6 weeks of age. Table 5.5 (below) outlines the basic steps nurses and midwives should follow when collecting a DSB specimen. This table is

just a brief procedural overview, and participants should receive further instruction at their clinics.

**Table 5.5: Dried Blood Spot (DBS) Specimen Collection**

✓	Steps
	<ul style="list-style-type: none"> <li>• Warm the baby's foot (or hand, if older than 10 months or larger than 10 kg) to facilitate blood flow. This can be done by wrapping a hand around the foot, while the baby sits in its mother's lap.</li> </ul>
	<ul style="list-style-type: none"> <li>• Position the baby with its feet down.</li> </ul>
	<ul style="list-style-type: none"> <li>• Clean the baby's foot with disinfectant and let it dry.</li> </ul>
	<ul style="list-style-type: none"> <li>• Wearing powder free gloves, prick the baby's heel or toe with a lancet to draw blood.</li> </ul>
	<ul style="list-style-type: none"> <li>• The first drop of blood should be wiped away with gauze or cotton wool.</li> <li>• The provider should then allow a large drop of blood to collect on the foot before touching it (blood drop) to the circle on the filter paper.</li> <li>• The baby's foot should not touch the filter paper. The circle should be filled completely by the blood drop and all three circles should be filled per card.</li> </ul>
	<ul style="list-style-type: none"> <li>• Review concomitant medications (consider drug interactions, make dose adjustments if pre-pubescent adolescent)</li> </ul>
	<ul style="list-style-type: none"> <li>• Stop bleeding by applying pressure with a dry swab and leave unbandaged.</li> </ul>
	<ul style="list-style-type: none"> <li>• Samples should be stored horizontally out of direct sunlight for at least three hours. Once dry, samples are stored in sealable plastic bags with desiccant packets and a humidity card and are ready for transport to the laboratory. If not sent that day, samples should be refrigerated—though they need not be refrigerated during transport. Lack of refrigeration facilities should not be a barrier to DBS PCR testing.</li> </ul>

Source: François Xavier Bagnoud (FXB) Center. 2010. *Comprehensive Paediatric HIV Care & Treatment Training Series: Module 2*, South to South Partnership for Comprehensive Family HIV Care and Treatment Program (S2S).

## Infant Feeding

All mothers who are HIV-infected should receive counselling, which includes general information about the risks and benefits of infant-feeding options and specific guidance on selecting the option most likely to be suitable for their situation. **The 2010 WHO infant feeding recommendations are as follows:**

### Infant feeding for HIV-uninfected mothers and mothers with unknown HIV status:

- Breastfeed exclusively for the first six (6) months of life.
- Introduction of safe complementary foods that provide sufficient nutritional balance from 6 months and continuation of breastfeeding.

- Continue breastfeeding for up to 2 years or longer, and transition from breastmilk to age appropriate replacement feeding from 6-12 months.
- Gradual cessation of breastfeeding over a period of 4 weeks.
- Mothers should also receive information about the risk of becoming infected with HIV late in pregnancy or during breastfeeding. Women with unknown HIV status should be encouraged to be tested for HIV

**Definition**

**Exclusive breastfeeding:** The mother gives her infant only breastmilk except for drops or syrups consisting of vitamins, mineral supplements, or medicines. The exclusively breastfed child receives no food or drink other than breastmilk—not even water.

**Infant feeding for HIV–infected mothers:**

- Exclusive breastfeeding is recommended during the first 6 months of life.
- Introduction of safe complementary foods from 6 months and continuation of breastfeeding.
- Continued breastfeeding up to 12 months of life.
- Breastfeeding should then only stop once a nutritionally adequate and safe diet, without breastmilk, can be provided.
- All mothers who are HIV-infected should receive counselling, which includes general information about the risks and benefits of infant-feeding options and specific guidance on selecting the option most likely to be suitable for their situation.

**Whatever choice a mother makes, she should be supported with care and support**

- Explain that now breastfeeding can be made safe by following guidelines on ARV prophylaxis for either the infant or by mother being on ARV treatment for at least 4 months.
- Ensure she is provided with infant feeding counselling and support. Observe her feeding technique and provide assistance.
- Encourage exclusive breastfeeding for the first 6 months of life. Ensure she understands the risk of mixed feeding and can respond to family or friends who recommend that she introduce foods or liquids before six months.
- If she is formula feeding, make sure she understands the importance of formula feeding exclusively (and not breastfeeding at all). Also ensure that she knows how to make infant formula correctly and hygienically; demonstrate and give her time to practice while she is observed by a nurse or midwife. Asking the client the following questions can help assess the safety of formula feeding:
  - *Do you have access to enough clean water and soap to wash your hands thoroughly before preparing the baby’s feeds?*
  - *How much money can you afford for formula each month?*

- *Do you have money for transportation to get replacement feeds when you run out?*
  - *Can you sterilise feeding equipment and utensils such as bottles, teats, measuring and mixing spoons?*
  - *Is your partner supportive of formula feeding and is he willing to help? How about your mother-in-law? Other responsible family members?*
  - *Will all caregivers be able to prepare the feeds safely and correctly?*
- Nurses and midwives should support the client in the selection of an infant-feeding option that considers personal, familial, and cultural concerns and reflects the best option for the client's circumstances.

### **New HIV Infection During Breast Feeding**

- If the mother tests HIV-negative during pregnancy or immediately after delivery, the nurse or midwife should ensure she knows how to stay uninfected. Provide her with information and support to protect herself from getting or passing HIV:
  - Encourage partner testing (if he has not been tested already).
  - Encourage use of condoms to protect against HIV, other STIs and unintended pregnancy.
- It is particularly important that she understands the risk of new HIV infection during breastfeeding. Breastfeeding women who acquire HIV carry a very high risk of MTCT (much higher than women who were infected before they got pregnant).
- Women who tested HIV negative should be encouraged to have a follow up HIV test if not done during the last trimester of pregnancy

### **Postpartum and Continuing Care**

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Mothers living with HIV need ongoing practical, psychosocial, and adherence support: to assist them in adhering to care as well as to their own and their infants' ARV regimens and to help them adhere to safe infant feeding practices.

All women and their infants should be seen postpartum within the first 2 weeks and again at 6 weeks. These visits are important and support child and maternal health. Despite the importance of follow up care, many women and infants are "lost" (lost to the healthcare system) in the postpartum period, so providing clear information on the follow-up care plan and location is critical.

### **Postpartum Care for HIV-Infected Women**

When providing postpartum care to women living with HIV, nurses and midwives should follow national guidelines. The following areas require special attention:

#### **Immediate postpartum care**

- Assess the amount of vaginal bleeding.

### **Early postpartum visit**

- At 3 – 10 days after delivery, the mother should be assessed for general health (Hb, BP, temp) as well as uterine involution, perineal care, and breast hygiene.
- Assess infant feeding option and stress exclusive feeding options.
- Discuss support at home and in the community, assessing need for referral or home visit.
- Assess whether or not the mother has any IF and/or PMTCT questions, concerns, or difficulties.

### **Routine postpartum visit**

- It will be very important that a mother knows to come to the clinic for an infant follow-up appointment at 6-8 weeks of age.
- PCR test should be performed to determine the infants HIV status.
- CTX initiation should also occur at 6 weeks after birth
- General health assessment, including Pap Smear, if not routinely done during antenatal care.
- TB symptom screening and IPT adherence or initiation, if indicated.
- Review CD4 count and clinical staging in HIV-infected women.
- Discuss family planning options.
- Reassess partner and family support, and when or if she plans to return to work, and if she plans to change her infant feeding practices.
- Reinforce the importance of exclusive breast feeding for the first 6 months, no mixed feeding, breast health, infant follow-up appointments, and breast feeding support groups.
- Introduce the topic of complementary feeding so the mother is prepared to start introducing other foods at 6 months.
- Assess whether or not the mother has any IF and/or PMTCT questions, concerns, or difficulties.

### **Late postpartum visit**

- At 6 months after delivery, re-assess the ongoing health of the HIV-infected mother.
- Review Hb, WHO clinical staging, CD4 count, and TB symptom screening.
- Counsel on family planning and contraception use.
- Assess adherence to ARV treatment if appropriate.
- Review and counsel on infant feeding options.
- Assess psychosocial needs.
- Assess whether or not the mother has any IF and/or PMTCT questions, concerns, or difficulties.

### **Nutrition counselling**

- Women receiving HIV-related medications require counselling on nutritional needs, in order to successfully manage side effects and avoid nutrition-related complications.



- Emphasise importance of cleanliness during food preparation and storage.
- Counsel on adequate nutrition, exercise, rest, good hygiene practices, and abstinence from harmful habits such as smoking, alcohol and drug abuse support overall health and improve immune function.

### **Psychosocial support**

- Regular monitoring of mental health and psychosocial support needs are critical at all stages of HIV infection. The following services should be offered directly or by referral:
  - Support to help the woman come to terms with her diagnosis.
  - Psychosocial support for the mother and for the infant who is exposed to HIV, in cases when the infant's HIV status is uncertain and when a positive diagnosis is made.
  - Community support, including referrals to community-based and faith-based programmes.
  - Peer support from health agencies or NGOs.
  - Support and counselling to assist women who are HIV-infected and their partners with disclosure issues.

### **Faith-based support**

- Faith-based involvement provides mothers who are HIV-infected with spiritual and psychosocial support. It also may provide them with an important sense of belonging to a larger community that offers them compassionate care. In many programmes, faith-based organisations are providing comprehensive treatment, care, and support services.

### **Home-based support**

- In many resource-limited settings, home-based care provides services to PLHIV when hospital and outpatient services are expensive or not accessible. The advantages of home-based care for clients and families, and for communities and the healthcare system include:
  - Care is provided in a familiar, supportive environment that allows for continued participation in family matters.
  - Medical expenses are reduced.
  - The local community is involved in caring for PLHIV, which may help counter myths and misconceptions.
  - The burden on the healthcare system is eased.

## Session 5.2 Teaching, Mentoring, and Skills Transfer

### Session Objective

After completing this session, participants will be able to:

- Apply knowledge of PMTCT care to specific case studies.

#### Exercise 1: PMTCT Continuum of Care: Case studies and large group discussion

<b>Purpose</b>	<ul style="list-style-type: none"> <li>• To review key components PMTCT services for HIV-infected women, by applying participants' knowledge of PMTCT care to specific clinical challenges in the context of case studies</li> </ul>
<b>Instruction</b>	<p><b>Case Studies and Large Group Discussion</b></p> <ol style="list-style-type: none"> <li>1. Participants should review the case studies in their Participant Manuals.</li> <li>2. A participant will be invited to read the 1<sup>st</sup> case study and its associated questions.</li> <li>3. The trainer will ask the large group to comment on and contribute answers and responses to the questions.</li> <li>4. Participants will continue with discussion of the remaining case studies.</li> </ol>

#### Exercise 1: PMTCT Continuum of Care: Case studies and large group discussion

##### Case Study 1:

S\_\_'s daughter, T\_\_, is 22-year-old woman who tested HIV-positive at her first antenatal visit at 3 months gestation. During that visit, she received HIV post-test counseling, was assessed at WHO clinical stage 1, was asked to return in 1 week, and was encouraged to bring her partner in for testing. At today's visit, she is 26 weeks pregnant. She arrived alone, without her partner. Upon questioning, it becomes clear that not only did she miss her follow up appointment, but she also has not told her partner her test results. Her lab results indicate a CD4 count of 450. She has no history of any other health-related problems. This is her first child.

- *What are the basic ANC management steps that should be taken?*
- *What specific HIV-related care does T\_\_ need?*
- *What might be some of T\_\_'s psychosocial needs?*
- *When would you ask her to come back to the clinic?*

##### Case Study 2:

T\_\_ expects to give birth next month. She tells you, despite your counseling, that she does not want to breastfeed because she is afraid of giving her baby HIV. However, her boyfriend is putting pressure on her to breastfeed, because he is afraid of his family's reaction if she doesn't. How

do you proceed with T\_\_\_?

**Case Study 3:**

Two weeks later, T\_\_\_ gives birth to twin daughters. They are born prematurely, weighing only 1.6kg and 1.8 kg at birth.

- *What HIV-specific care do T\_\_\_'s infants require at birth and after birth?*
- *What general postpartum care does T\_\_\_ require?*
- *What can you accomplish with T\_\_\_ and her infants before she leaves the facility in 12 hours?*

## Session 5.3      Additional Learning Activities and Resources

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### Session Objective

**After completing this session, participants will be able to:**

- Describe independent and supplemental learning activities for the module.

### Independent Learning Activities

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Ask participants to work in small groups and review the following documents:

- WHO. 2010. *Antiretroviral drugs for treating pregnant women and preventing HIV infections in infants, 2010 revision.*
- WHO. 2010. *Guidelines on HIV and infant feeding 2010 Principles and recommendations for infant feeding in the context of HIV and a summary of evidence.*
- WHO. 2006. *IMAI Chronic HIV Care with ARV Therapy and Prevention, Draft.*

Then, ask participants to choose one or more of the following learning activities:

- Co-facilitate or assist with an infant feeding or peer support group for HIV-infected pregnant women at your clinic, to get a better understanding of their needs and expectations of HIV care and treatment. Summarize what you learned in a brief paper and present it at the next training session.
- Conduct a lunchtime training with other members of the multidisciplinary team about safe infant feeding practices, and:
  - *Discuss counselling strategies for providers to use to help mothers successfully breastfeed.*
  - *Discuss breastfeeding and infant feeding counselling opportunities.*
  - *Provide an outline of the feeding messages and when to discuss them with mothers.*
- Create a health poster for your clinic, which communicates key facts and messages around PMTCT for mothers in your community.

## Session 5.4 Action Planning

### Session Objective

After completing this session, participants will be able to:

- Develop a site-specific action plan to overcome barriers to PMTCT services in their specific clinics.

### Key Points for Supporting PMTCT Activities

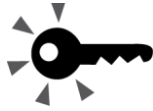
Most infant HIV infections can be averted. PMTCT is one of the most effective ways to prevent perinatal transmission of HIV, yet pediatric HIV still remains an uncontrolled epidemic in some countries. When thinking about how to better support and integrate basic PMTCT services for HIV-infected women within clinic settings, nurse mentors and educators should keep 3 key standards in mind:

- Every health facility, to the best of its ability, should have systems in place to identify HIV-infected women and infants.
- Every health facility, to the best of its ability, should have systems in place to ensure all pregnant and postpartum women living with HIV have clear and correct information about their own and their baby's PMTCT care plan.
- Every health facility, to the best of its ability, should have systems in place to retain pregnant and postpartum women living with HIV and their infants in care.

#### Exercise 2: Overcoming Challenges to PMTCT: Small group work and large group discussion

<b>Purpose</b>	<ul style="list-style-type: none"><li>• To develop a site-specific action plan addressing some of the systemic barriers to effective PMTCT services</li></ul>
<b>Instruction</b>	<p><b>Part 1: Small Group Work</b></p> <ol style="list-style-type: none"><li>1. The trainer will begin the exercise by participants into small groups of 4-5 individuals each. Participants from the same clinic should work together.</li><li>2. Participants should refer to <i>Appendix 5C: Action Plan Worksheet</i> during this exercise.</li><li>3. Participants will be asked to reflect on the PMTCT program in their local setting.</li><li>4. Groups should answer the following questions:<ul style="list-style-type: none"><li>• Which components of your PMTCT programs do you think are the most effective, by preventing the greatest number of cases of HIV in infant?</li><li>• What challenges exist at your workplace or in the community that make implementation or delivery of PMTCT services difficult?</li><li>• What are the main program barriers at your clinic? (e.g. integration of ANC services, staff shortages, lack</li></ul></li></ol>

	<p style="text-align: center;"><i>of funding, attitudes of staff, stigma, limited supplies)</i></p> <ol style="list-style-type: none"> <li>5. Each group should brainstorm about the main programme or system barriers to PMTCT service delivery in their clinics.</li> <li>6. Groups will be asked to list the 3 most significant programme barriers which prevent effective delivery</li> <li>7. Groups will be invited to think of a solution that nurse mentors and educators might be able to implement, in response to each barrier or problem, using the following questions as a guide: <ul style="list-style-type: none"> <li>• <i>What will we do about this barrier or problem?</i></li> <li>• <i>What do we want to achieve?</i></li> </ul> </li> <li>8. Participants should remember that good solutions are “SMART,” or: <ul style="list-style-type: none"> <li>• <b>Specific:</b> It addresses the matter specifically</li> <li>• <b>Measurable:</b> It can be measured to determine whether it has been achieved.</li> <li>• <b>Achievable:</b> It is within the means and capacity of your group.</li> <li>• <b>Realistic:</b> It is practical and can be accomplished within a reasonable time frame.</li> <li>• <b>Time-bound:</b> The time period for reaching it is clearly specified.</li> </ul> </li> <li>9. Participants will be asked to list 1-3 specific strategies, activities, or “next steps” to achieve each solution.</li> <li>10. For each activity, groups should answer the following questions: <ul style="list-style-type: none"> <li>• <i>Who is responsible for this activity?</i></li> <li>• <i>When will you be able to implement this activity?</i></li> <li>• <i>What kind of support or resources (including funds) do you need in order to achieve this activity?</i></li> <li>• <i>Any other comments to note about this activity or strategy?</i></li> </ul> </li> <li>11. Groups should use <i>Appendix 5C: Action Plan Worksheet</i> to record their plans.</li> </ol> <p><b>Part 2: Large Group Discussion</b></p> <ol style="list-style-type: none"> <li>12. Each group has 5 minutes for presenting their plans to the larger group.</li> <li>13. After each group presents, other participants will be invited to suggest other solutions that were not listed their plan.</li> </ol>
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## Module 5: Key Points

- Mother-to-child transmission of HIV (MTCT) is the transmission of HIV from an infected mother to her baby during pregnancy, labour, delivery and breastfeeding. MTCT is also referred to as “vertical transmission” or “perinatal transmission”. MTCT can occur during:
  - Pregnancy
  - Labour and delivery
  - Breastfeeding
- PMTCT is a term used to describe a package of services intended to reduce the risk of MTCT.
- Key concepts in the WHO PMTCT protocol guidelines include the following:
  - Keep mothers healthy — the higher her CD4 cell count the less likely her infant will be HIV infected
  - Reduce risk at every stage — pregnancy, labour, delivery and during breastfeeding
  - All mothers need ARVs — mothers with CD4 cell count below 350 are eligible for lifelong ART, those with CD4 cell count above 350 should get ARVs during pregnancy
- Key PMTCT Updates for 2010 are:
  - **Earlier diagnosis and treatment of HIV with ART:** CD4  $\leq$  350, Stage III, IV\*
  - **Prophylaxis started earlier and longer duration:** Regimens initiated at 14 weeks gestation and continued throughout duration of breastfeeding
  - **Safer infant feeding practices to maximize HIV-free survival:** Exclusive breastfeeding for 6 months, with breastfeeding continued through 12 months in the presence of maternal/infant prophylaxis
- All women attending ANC should routinely be given information and education about HIV, HIV testing, and the PMTCT programme. For many women, the offer of HIV counselling and testing during ANC will be the first time they are faced with deciding whether they want to know their HIV status.
- Women with HIV need ongoing practical, psychosocial, and adherence support: to assist them in adhering to care as well as to their own and their infants’ ARV regimens.
- Infants who are HIV-exposed require follow-up care to monitor growth and development, immunisations, and prophylaxis for infections.
- Dried Blood Spot (DBS) procedure is a simple, safe, and cost effective way to collect specimens for infant HIV PCR testing.
- Every health facility, to the best of its ability, should have systems in place to identify HIV-infected women and infants, to ensure all pregnant and postpartum women living with HIV have clear and correct information about PMTCT services, and to retain these women and their infants in care.

## Appendix 5A: ARV Protocols for Pregnant Women with HIV and their Infants

Clinical Decision	Regimen for Woman	Regimen for Infant
<b>ARV therapy:</b> CD4 count $\leq$ 350/mm or WHO stage III or IV	<ul style="list-style-type: none"> <li>• <b>AZT + 3TC + NVP</b></li> <li>• <b>OR</b></li> <li>• <b>TDF + 3TC/FTC + NVP</b></li> <li>• Ensure serum creatinine is at least 50ml before starting TDF.</li> <li>• Ensure ALT is less than 100 before starting NVP.</li> <li>• Begin at any gestation.</li> <li>• After the first trimester, if woman develops NVP-associated toxicity, then NVP should be substituted with EFV.</li> </ul>	NVP or twice daily AZT at birth and then daily for six weeks irrespective of infant feeding choice.
<b>Already on ARV therapy before pregnancy</b>	<ul style="list-style-type: none"> <li>• Continue with treatment as per 2010 WHO Guidelines: through labour, delivery, and postnatal periods.</li> <li>• EFV-based regimen: if presenting in first 12 weeks of pregnancy, substitute EFV with NVP. If presenting after the first trimester continue with EFV-containing regimen and provide adverse event monitoring, including foetal anomaly scans where available.</li> <li>• d4T-based regimen: remain on d4T if well tolerated. Switch if toxicity is experienced or if at high risk of toxicity (high BMI, low Hb, older female).</li> </ul>	
<b>Contraindication to TDF (renal disease)</b>	<ul style="list-style-type: none"> <li>• <b>AZT + 3TC + NVP</b></li> </ul>	
<b>ARV prophylaxis:</b> CD4 count $>350/\text{mm}^3$ *	<ul style="list-style-type: none"> <li>• Start AZT from 14 weeks or as soon as possible thereafter</li> </ul>	Provide as soon as possible after birth: <ul style="list-style-type: none"> <li>• <b>Breastfed infants:</b> Daily</li> </ul>



	<p>AND, during labour give:</p> <ul style="list-style-type: none"> <li>• <b>Single dose NVP</b> (if in false labour, do NOT repeat dose of NVP)</li> <li>• <b>TDF + FTC</b> as a single dose together with single dose NVP *</li> <li>• <b>AZT</b> 3-hourly</li> </ul> <p>* TDF + FTC may be given after delivery, but only if single dose NVP was given during labour and TDF + FTC was omitted at that time. If single dose NVP was not given during labour, do not give TDF + FTC.</p>	<p>NVP at birth or twice daily AZT until one week after complete cessation of breastfeeding</p> <ul style="list-style-type: none"> <li>• <b>Formula fed infants:</b> Daily NVP at birth or twice daily AZT for 6 weeks</li> </ul>
<p>* If a woman is started on ARV prophylaxis and her CD4 count later indicates the need for ARV therapy (CD4 count <math>\leq 350</math>), initiate ARV therapy. Discontinue AZT immediately prior to starting ARV therapy.</p>		
<p><b>Unbooked woman of unknown status presents in labour</b> (Also applies to women of known HIV-positive status who have had no ARVs during pregnancy, although these women do not require HIV counselling and testing)</p>		
<p>If in stage 1 labour, routinely offer HIV counselling and testing.</p> <p>If in advanced labour, defer HIV counselling and testing until after delivery</p>	<p>If HIV-positive, administer the following during labour:</p> <ul style="list-style-type: none"> <li>• <b>Single dose of NVP</b> (if in false labour, do NOT give a second dose as this has the potential to cause drug resistance).</li> <li>• <b>TDF + FTC</b> as a single dose together with single dose NVP *</li> <li>• <b>AZT</b> 3-hourly</li> </ul> <p>* TDF + FTC may be given after delivery, but only if single dose NVP was given during labour and TDF + FTC was omitted at that time. If single dose NVP was not given during labour, do not give TDF + FTC.</p>	<p>Provide as soon as possible after birth:</p> <ul style="list-style-type: none"> <li>• <b>Breastfed infants:</b> NVP at birth and then daily until one week after complete cessation of breastfeeding</li> <li>• <b>Formula fed infants:</b> NVP at birth and then daily for 6 weeks</li> </ul>

Source: François Xavier Bagnoud (FXB) Center. 2010. *Comprehensive Paediatric HIV Care & Treatment Training Series: Module 2*, South to South Partnership for Comprehensive Family HIV Care and Treatment Program (S2S).

## Appendix 5B: ARV Dosing Guide (Adult and Infant)

### ARV Dosing Guide for Adults

Drug	Dosage (ARV therapy, only)	Notes
3TC (Lamivudine)	150mg 12-hourly po OR 300mg daily	
AZT (Zidovudine)	300mg 12-hourly po (dosage is the same for women on ARV prophylaxis except that frequency is increased to 3-hourly during labour)	Avoid if severe anaemia (Hb < 8g/dl). For pregnant women eligible for ARV prophylaxis, consider replacing AZT with TDF 300mg daily (remember to follow creatinin clearance at baseline and at 3 and 6 months).
d4T (Stavudine)	30mg 12-hourly po	All adult patients must receive 30mg regardless of weight
EFV (Efavirenz)	600mg nocte po	Avoid during first trimester of pregnancy and if psychiatric conditions are present
FTC (Emtricitabine)	200mg daily	Generally well tolerated.
NVP (Nevirapine)	200mg daily po X two weeks then 200mg 12-hourly po  For PMTCT purposes, single- dose NVP given as 200mg tablet one time along with TDF + FTC.	Should be used with caution with TB treatment  Contraindicated if ALT raised >100.  Repeat ALT at 2,4,8 and 12 weeks, and anytime thereafter if hepatitis symptoms occur.
TDF (Tenofovir)	300mg daily	Contraindicated in creatinine clearance of <50ml/min. Check creatinine clearance at 3 months, then at 6 months.
po = by mouth nocte = every night/bedtime		
Truvada	Emtricitabine (FTC)+ Tenofovir DF (TDF)	
Atripla	Emtricitabine (FTC)+ Tenofovir DF (TDF) + Efavirenz (EFV)	

### Nevirapine Infant Dosing Guide

Drug	Age	Weight	Dose	Quantity
NVP syrup (10mg/ml)	Birth to 6 weeks	< 2.5 kg birth weight	10mg/d	1ml
	Birth to 6 weeks	≥ 2.5 kg birth weight	15mg/d	1.5ml
	6 weeks to 6 months	All infants	20mg/d	2ml
	6 months to 9 months	All infants	30mg/d	3ml
	9 months to end of breastfeeding	All infants/children	40mg/d	4ml

### Cotrimoxazole Infant Dosing Guide

Age or weight of child	Dose	Suspension 5ml 200mgSMX 40mg TMP	Single strength tablet 400mg SMX 80 mg TMP	Double strength tablet 800mg SMX 160 mg TMP
<6 months Or <5 kg	100mg SMX 20mg TMP	2.5 ml	¼ tablet	-
6 months–5 years Or 5–15 kg	200mg SMX 40mg TMP	5 ml	½ tablet	-
6–15 years Or 15–30kg	400mg SMX 80mg TMP	10 ml	1 tablet	½ tablet
> 14 years Or > 30 kg	800mg SMX 160mg TMP	-	2 tablets	1 tablet.

Source: François Xavier Bagnoud (FXB) Center. 2010. *Comprehensive Paediatric HIV Care & Treatment Training Series: Module 2*, South to South Partnership for Comprehensive Family HIV Care and Treatment Program (S2S).

## Appendix 5C: Action Plan Worksheet

What is the problem?	What is your solution to this problem?	What are your strategies, activities, or “next steps” to achieve the solution?	What is your timeframe?	What resources or support are needed?	Comments
		1.			
		2.			
		3.			
		1.			
		2.			
		3.			
		1.			
		2.			
		3.			

## **References and Resources**

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None for this module.

# Module 6 Paediatric HIV

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**Session 6.1: Review of Key Competencies and Key Updates for Paediatric HIV**

**Session 6.2: Teaching, Mentoring, and Skills Transfer**

**Session 6.3: Additional Learning Activities**

**Session 6.4: Action Planning**

## **Learning Objectives**

**After completing this module, participants will be able to:**

- Discuss the importance of early diagnosis of HIV infection in children.
- Review routine care and treatment procedures for HIV-infected children.
- List ART eligibility criteria and recommended first-line ART regimens for HIV-infected children.
- Review basic principles of adherence and psychosocial support for HIV-infected children and their caregivers.
- List recommended first-line ART regimens for HIV-infected children.
- Discuss the role of nurses in supporting caregivers with disclosure of their child's HIV status.
- Describe alternative and supplemental learning activities for the module.
- Apply their knowledge of paediatric care to specific case studies.
- Develop a site-specific action plan to overcome mentoring and systems barriers to providing quality paediatric care to HIV-infected children at their clinics.

## **Session 6.1      Review of Key Competencies and Key Updates for Paediatric HIV**

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### **Session Objectives**

**After completing this session, participants will be able to:**

- Discuss the importance of early diagnosis of HIV infection in children.
- Review routine care and treatment procedures for HIV-infected children.
- List ART eligibility criteria and recommended first-line ART regimens for HIV-infected children.
- Review basic principles of adherence and psychosocial support for HIV-infected children and their caregivers.
- List recommended first-line ART regimens for HIV-infected children.
- Discuss the role of nurses in supporting caregivers with disclosure of their child's HIV status.

### **Overview of Paediatrics**

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The following are some key differences between adults and children relevant to health and health care.

- Children have unique anatomic, physiologic, immunologic, developmental and psychological attributes that affect the nurse's approach to assessment, care and treatment.
- Unlike adults, key aspects of paediatric care include monitoring of growth and development.
- Children are dependent upon adults, yet have a right to participate in their care at a level that is appropriate to their development.
- The family-centred approach to care acknowledges that the best health outcomes occur when clinicians recognise that the family is central to supporting the health of the child.
- Nurses who are inexperienced in providing paediatric care may feel overwhelmed or fearful of assuming responsibility for the care of children. Facts must be combined with the development of specific skills ↓ such as physical examination and developmental assessment ↓ that must be practiced in the clinical setting under the guidance of an experienced mentor.

### **The Importance of Early Diagnosis of HIV in Children<sup>1</sup>**

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As discussed in Module 5, most HIV infection in children results from mother-to-child transmission of HIV, which can occur during pregnancy, labour and delivery, or breastfeeding. There are many interventions to reduce the risk of MTCT. There are also many things we can do to care for children who are HIV-infected.

It is crucial to diagnose HIV infection in children **as early as possible — ideally in infancy** — to prevent death, illness and growth and developmental delays. Children with HIV infection should begin ART as soon as possible to prevent or limit disease progression.

**The goal of diagnosing children as early as possible is to identify HIV-exposed and HIV-infected children and engage them in life-saving care. Early access to HIV care and treatment can delay or limit disease progression, improve health and prevent death.**

## **Considerations for Paediatric HIV Testing**

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**Diagnosing HIV infection in children is somewhat different than diagnosing HIV infection in adults.**

- While many of the same tests and procedures for HIV testing and counselling in children are used in adults, such as pre- and post-test counselling and rapid HIV antibody tests, there are a number of differences in how these tests and procedures are used and interpreted. These differences are discussed in more depth below.
- Paediatric HIV testing requires the participation and cooperation of the caregiver(s), who may also be living with HIV and coping with his or her own illness. Caregivers may become worried and anxious when children are sick; mothers may have guilt about the possibility that they passed HIV to their child.
- Identifying HIV early in life is even more critical in children than in adults given their fast disease progression and high mortality rates.
- HIV testing in children less than 18 months of age or in those who are still breastfeeding is not a one-time event. Instead, HIV testing and counselling in children less than 18 months is an ongoing process that may require the child to be tested multiple times.
- HIV infection cannot be excluded in breastfeeding children (of any age) because they continue to be at risk of acquiring HIV infection through breast milk if the mother is herself living with HIV.

## **Care Package for HIV-Infected Children**

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The following information captures the general areas that should be covered to ensure comprehensive care of HIV-exposed and HIV-infected children. More detailed and specific information may be obtained from the national *Guidelines for the Management of HIV-infected Children* and the *Integrated Management of Childhood Illnesses* manuals produced by the World Health Organization.

### **Monitor (and record) the child's growth and development**

- Growth progression is one of the best indicators of any infant's overall health. Growth failure is a sensitive marker of HIV infection; it affects up to 50 percent of infected infants and children. In general, under nutrition and malnutrition affect the infant's immune system and make the infant



more susceptible to infections (e.g., ear infections, pneumonia, diarrhoea) and death. After every acute infection the infant requires extra calories to help the healing and repair process.

- Routine performance of and attention to a developmental assessment is a critical part of the assessment of a child. Nurses can and can use *Appendix 6A: Developmental Checklist*, as a basic assessment tool for developmental milestones.

### **Physical exam assessment**

- A routine physical exam (see Table 6.1 for specific exam components) should always be conducted at the initial visit and as clinically indicated.
- If the patient is new to the health facility, it is important to obtain a comprehensive medical history, including information about the ARV prophylaxis the mother and infant received, mode of delivery, complications, and birth weight, specifics about the home environment, family medical history.

### **Ensure that immunisations are started and completed according to the recommended schedule**

All HIV-exposed or -infected children should undergo the recommended immunisations according to the national EPI programme with the exception of:

- BCG vaccination should not be given to symptomatic HIV-exposed or HIV-infected infants.
- Because of the increased risk of early and severe measles infection, HIV-exposed children who are not severely immunocompromised should receive a dose of standard measles vaccine at 6 months of age with a second dose as soon after the age of 9 months as possible.
- However, children who are severely immunosuppressed (based on age-specific CD4 count) due to HIV infection should not receive measles vaccine until immunological improvement is observed.

### **Opportunistic infection prophylaxis**

CTX prophylaxis has been shown to prevent PCP, toxoplasmosis, possibly malaria and some causes of diarrhoea as well as other infections. PCP is a leading cause of death in HIV-infected children. PCP often strikes children between the ages of three and six months.

HIV-infected children and those whose HIV status have not yet been determined should be given CTX according to the national guidelines.

CTX prophylaxis should be initiated in:

- All HIV-exposed children starting at 6 weeks (or as soon as possible thereafter) until the child has been determined to not have HIV.
- All HIV-infected children less than 12 months old, regardless of CD4% or clinical status.
- All children between 12 months and four years old in WHO clinical stage 2, 3 or 4 regardless of CD4%.

- All children who have had an episode of PCP.

### **TB screening and prevention**

When screening for exposure to TB, the most important question to ask is has the infant had close contact within the past 12 months with an adolescent or adult with sputum-positive TB. See Table 6.1 for specific screening criteria.

- Typically, any infant who screens positive for TB infection should undergo further diagnostic evaluation with chest X-ray (CXR), TST, sputum culture or gastric aspirate for AFB, and lymph node fine needle aspiration or biopsy (in the case of a neck mass) to aid in diagnosis. However, many sites do not have this capability.
- In cases where the child does not have TB disease, but may be at high risk for developing TB, provide preventive therapy -isoniazid (INH) monotherapy for 6 months

### **Conduct disease staging**

Nurses should stage HIV-infected according to WHO criteria. Nurses and midwives can refer to *Appendix 6B: WHO Clinical Staging Chart for Infants and Children* for more detail about disease staging. Clinical staging should be done at every clinical visit and will help clinical monitoring of paediatric HIV disease.

### **Signs and conditions common in HIV-infected children but uncommon in HIV-uninfected children**

- Severe pneumonia
- Severe bacterial infections esp. if recurrent
- Persistent or recurrent oral thrush
- Bilateral painless parotid swelling
- Generalised lymphadenopathy other than inguinal
- Hepatosplenomegaly (enlargement of liver and spleen)
- Persistent or recurrent fever
- Neurologic dysfunction
- Herpes zoster – single dermatome
- Persistent generalised dermatitis not responding to treatment

### **Signs and conditions very specific to HIV infection**

- Pneumocystis jiroveci pneumonia (PCP)
- Oesophageal candidiasis
- Extrapulmonary cryptococcosis
- Invasive salmonella infection
- Lymphoid interstitial pneumonitis (LIP)
- Herpes zoster affecting several dermatomes
- Kaposi's sarcoma
- Lymphoma
- Recto-vaginal or recto-vesical fistula

## Provide family-centred support

- Although the focus of health care visits may be on the child, healthcare workers should be alert to signs that the caregiver and other members of the family are also in need of healthcare services.
- Services for the family might include providing testing and counselling services, referrals to care and treatment for HIV-infected family members, adherence preparation and support, preventive counselling, and psychosocial support, such as peer support groups.

Table 6.1 outlines the basic components of routine care for HIV-infected children who are not yet on ART and Table 6.2 outlines the components of care for children who are on ART. Nurses can refer to the *WHO Integrated Management of Childhood Illness for High HIV Settings (2008)* for additional guidance. It has guidelines for HIV-exposed and -infected children on infant and young child feeding, immunisation, cotrimoxazole prophylaxis, Vitamin A, zinc and other micronutrient supplementation, as well as nutritional support

**Table 6.1: Care package for HIV-infected children NOT on ART**

Paediatric Service	Key Steps
<b>Measure, record, plot, and evaluate growth</b>	<ul style="list-style-type: none"> <li>• Weight for age.</li> <li>• Length for age.</li> <li>• Head circumference, if less than 3 years of age.</li> </ul>
<b>Assess development</b>	<ul style="list-style-type: none"> <li>• According to the age of the child.</li> <li>• See <i>Appendix 6A: Developmental Checklist</i>, as a guide</li> </ul>
<b>Physical exam</b>	<ul style="list-style-type: none"> <li>• General appearance (including nutritional status).</li> <li>• Vital signs.</li> <li>• Skin and hair (including scars, burns, bruises, birthmarks).</li> <li>• Head and neck (including facial features, fontanelles in infants).</li> <li>• Eyes (including discharge, alignment).</li> <li>• Ears (including infections, discharge).</li> <li>• Nose and throat (including discharge, infections).</li> <li>• Mouth, tongue, palate, gums and teeth (including evidence of thrush, caries, lesions, intact palate).</li> <li>• Lungs and pulmonary system (listen for wheezing, crackle, rhonchi, and pleural rub).</li> <li>• Heart and cardiac system (including presence of murmurs).</li> <li>• Abdomen and gastrointestinal system (including presence of hernias).</li> <li>• Genitalia, rectum and urinary system (including presence of testicles (boys) and normal female genitalia).</li> </ul>

	<ul style="list-style-type: none"> <li>• Musculoskeletal system (including spine, hips, muscle tone).</li> <li>• Neurological system (including reflexes, motor coordination, gait).</li> <li>• Extremities (including range of motion, strength).</li> </ul>
<b>Preventative health care</b>	<ul style="list-style-type: none"> <li>• TB screening: suspect TB if the child has: <ul style="list-style-type: none"> <li>• Contact with an adult pulmonary tuberculosis source case — often the first indication of childhood tuberculosis.</li> <li>• If the child is the index case, then the mother or caregiver may be the TB source case.</li> <li>• Fever for more than a week.</li> <li>• A chronic, unremitting cough (for more than two weeks).</li> <li>• Ongoing weight loss or poor weight gain</li> <li>• Loss of playfulness.</li> </ul> </li> <li>• Immunisations</li> <li>• Vitamin A</li> <li>• Deworming</li> <li>• Provide CTX as indicated</li> <li>• Health education to the caregiver</li> </ul>
<b>Ongoing reassessment of ART eligibility</b>	<ul style="list-style-type: none"> <li>• Clinical review for any new WHO staging conditions at least every 3 months. More frequent review for children with active illness, pending investigations or complications.</li> <li>• CD4 percentage (Under 5 years) and/or total CD4 count (all ages) every 6 months.</li> </ul>
<b>Psychosocial support</b>	<ul style="list-style-type: none"> <li>• Psychosocial support to the child and caregiver, including the reassessment of the disclosure process.</li> <li>• Involve the child in his/her own healthcare, as much as possible.</li> <li>• Important elements of psychosocial support include: <ul style="list-style-type: none"> <li>• Level of support – financial, logistical (e.g. transportation), emotional</li> <li>• Mental health and well-being of caregiver and child</li> <li>• Observation of interaction between caregiver and child</li> <li>• Factors preventing appropriate care of child (mental health, substance use, illness, etc.)</li> <li>• Appropriate behaviours for age of child</li> <li>• Child’s adjustment to school, peer relationships</li> <li>• Family conflict, instability or other family stressors</li> <li>• Impact of stigma and discrimination on care seeking, caring for health/child, accessing support</li> <li>• Community resources</li> </ul> </li> </ul>
<b>Family History</b>	<ul style="list-style-type: none"> <li>• Take a family history for HIV, TB and any other concerns that may impact the infant’s health or ability</li> </ul>

	to receive ongoing chronic care. Encourage HIV testing for all family members, even if clinically well.
<b>Caregivers and family</b>	<ul style="list-style-type: none"> <li>• Refer caregivers to community-based support clubs or organisations where available.</li> <li>• Assess need to counsel and test other children.</li> </ul>
<b>Effective contraception planning for caregiver</b>	<ul style="list-style-type: none"> <li>• Counsel about correct and consistent use of condoms during pregnancy to prevent infection with other STIs, which can increase the rate of MTCT.</li> <li>• Provide family planning and contraception counselling — with partner involvement when possible.</li> <li>• Counselling should include the different types of methods available (barrier, hormonal, long-term and permanent), dual protection including condoms, when to start contraception, and possibilities of drug interactions (e.g. with antibiotics or TB medications).</li> <li>• Women living with HIV on ARV therapy can safely and effectively use all forms of contraceptives.</li> </ul>

Source: François Xavier Bagnoud (FXB) Center. 2010. *Comprehensive Paediatric HIV Care & Treatment Training Series: Module 2*, South to South Partnership for Comprehensive Family HIV Care and Treatment Program (S2S).

**Table 6.2: Care package for HIV-infected children on ART**

<b>Paediatric Service</b>	<b>Key Steps</b>
<b>Measure, record, plot, and evaluate growth</b>	<ul style="list-style-type: none"> <li>• Weight for age</li> <li>• Length for age</li> <li>• Head circumference, if less than 3 years of age</li> </ul>
<b>Assess development</b>	<ul style="list-style-type: none"> <li>• According to the age of the child.</li> <li>• See <i>Appendix 6A: Developmental Checklist</i>, as a guide</li> </ul>
<b>Assess and treat any new illness</b>	<ul style="list-style-type: none"> <li>• Assess for new WHO staging conditions, treatment side effects, or toxicities</li> <li>• Provide care and treatment for any chronic conditions</li> </ul>
<b>Assess adherence to treatment</b>	<ul style="list-style-type: none"> <li>• Discuss successes and challenges - medication bottle inspection and pill counts</li> <li>• Provide caregiver support and individualized adherence counseling</li> <li>• Counsel on managing symptoms and side effects</li> </ul>
<b>Physical exam</b>	<ul style="list-style-type: none"> <li>• General appearance (including nutritional status)</li> <li>• Vital signs</li> <li>• Skin and hair (including scars, burns, bruises, birthmarks)</li> <li>• Head and neck (including facial features, fontanelles in infants)</li> <li>• Eyes (including discharge, alignment)</li> <li>• Ears (including infections, discharge)</li> <li>• Nose and throat (including discharge, infections)</li> </ul>

	<ul style="list-style-type: none"> <li>• Mouth, tongue, palate, gums and teeth (including evidence of thrush, caries, lesions, intact palate)</li> <li>• Lungs and pulmonary system (listen for wheezing, crackle, rhonchi, and pleural rub)</li> <li>• Heart and cardiac system (including presence of murmurs)</li> <li>• Abdomen and gastrointestinal system (including presence of hernias)</li> <li>• Genitalia, rectum and urinary system (including presence of testicles (boys) and normal female genitalia)</li> <li>• Musculoskeletal system (including spine, hips, muscle tone)</li> <li>• Neurological system (including reflexes, motor coordination, gait)</li> <li>• Extremities (including range of motion, strength)</li> </ul>
<b>Preventative health care</b>	<ul style="list-style-type: none"> <li>• TB screening: suspect TB if the child has: <ul style="list-style-type: none"> <li>• Contact with an adult pulmonary tuberculosis source case — often the first indication of childhood tuberculosis.</li> <li>• If the child is the index case, then the mother or caregiver may be the TB source case.</li> <li>• Fever for more than a week.</li> <li>• A chronic, unremitting cough (for more than two weeks).</li> <li>• Ongoing weight loss or poor weight gain</li> <li>• Loss of playfulness.</li> </ul> </li> <li>• Immunisations</li> <li>• Vitamin A</li> <li>• Deworming</li> <li>• Provide CTX as indicated</li> <li>• Health education to the caregiver</li> </ul>
<b>Ongoing reassessment of ART eligibility</b>	<ul style="list-style-type: none"> <li>• Clinical review for any new WHO staging conditions at least every 3 months. More frequent review for children with active illness, pending investigations or complications.</li> <li>• CD4 percentage (Under 5y of age) and/or total CD4 count (all ages) every 6 months.</li> </ul>
<b>Psychosocial support</b>	<ul style="list-style-type: none"> <li>• Psychosocial support to the child and caregiver, including the reassessment of the disclosure process.</li> <li>• Involve the child in his/her own healthcare, as much as possible.</li> <li>• Important elements of psychosocial support include: <ul style="list-style-type: none"> <li>• Level of support – financial, logistical (e.g. transportation), emotional</li> <li>• Mental health/well-being of caregiver and child</li> <li>• Observation of interaction between caregiver and child</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>• Factors preventing appropriate care of child (mental health, substance use, illness, etc.)</li> <li>• Appropriate behaviours for age of child</li> <li>• Child’s adjustment to school, peer relationships</li> <li>• Family conflict, instability or other family stressors</li> <li>• Impact of stigma and discrimination on care seeking, caring for health/child, accessing support</li> <li>• Disclosure counseling</li> <li>• Community resources</li> </ul>
<b>Family History</b>	<ul style="list-style-type: none"> <li>• Take a family history for HIV, TB and any other concerns that may impact the infant’s health or ability to receive ongoing chronic care. Encourage HIV testing for all family members, even if clinically well.</li> </ul>
<b>Caregivers and family</b>	<ul style="list-style-type: none"> <li>• Refer caregivers to community-based support clubs or organisations where available.</li> <li>• Assess need to counsel and test other children.</li> </ul>
<b>Effective contraception planning</b>	<ul style="list-style-type: none"> <li>• Counsel about correct and consistent use of condoms during pregnancy to prevent infection with other STIs, which can increase the rate of MTCT.</li> <li>• Provide family planning and contraception counselling — with partner involvement when possible.</li> <li>• Counselling should include the different types of methods available (barrier, hormonal, long-term and permanent), dual protection including condoms, when to start contraception, and possibilities of drug interactions (e.g. with antibiotics or TB medications).</li> <li>• Women living with HIV on ARV therapy can safely and effectively use all forms of contraceptives.</li> </ul>

Source: François Xavier Bagnoud (FXB) Center. 2010. *Comprehensive Paediatric HIV Care & Treatment Training Series: Module 2*, South to South Partnership for Comprehensive Family HIV Care and Treatment Program (S2S).

## Eligibility for ART

The overall aim of therapy in children is to maintain the child’s immune system at a level that protects them from developing opportunistic infections and disease progression. Like adults, ARV drugs will not cure HIV in children but help to “control” the virus by reducing viral replication thus preserving the immune system.

### The following infants and children are eligible for ART:

- All HIV-infected infants (PCR+) less than 12 months of age, regardless of CD4 result or WHO Stage.
- All children 12 -24 months, regardless of CD4 result or WHO Stage.
- Any child WHO Stage 3 or 4.
- Any child with CD4 below threshold as defined by:
  - 1 - 4y: CD4% less than 25% or total CD4 count of less than 750.
  - Age 5- 14 years, with a total CD4 less than 350.

- Age 15 years or older: Refer to WHO. 2010. *Antiretroviral Therapy for HIV Infection in Adults and Adolescents. Recommendations for a Public Health Approach*, 2010 revision.

## Preferred Regimens for Infants and Children

The WHO recommends the following regimens for infants and children, outlined in Table 6.3. For infants and children, first line ART regimens contains NVP or EFV plus a “backbone” consisting of 2 NRTIs. Nurses should always follow national guidelines, if applicable, when prescribing ART for clients.

**Table 6.3: Regimens for infants and children**

	Regimen	
	NRTI backbone	NNRTI component
Infant or child <24mo, not exposed to ARVs	<b>AZT + 3TC + (preferred)</b> or ABC + 3TC + or d4T <sup>4</sup> + 3TC +	<b>NVP</b> <sup>1, 2</sup>
Infant or child <24mo, exposed to NNRTI	<b>AZT + 3TC + (preferred)</b> or ABC + 3TC + or d4T + 3TC +	<b>LPV/r</b> <sup>2</sup>
Infant or child <24mo, with unknown ARV exposure	AZT + 3TC + or ABC + 3TC + or d4T + 3TC +	NVP <sup>1, 2</sup>
Children 24mo-3 yrs	AZT + 3TC + or ABC + 3TC + or d4T + 3TC +	NVP
Children >3yrs	AZT + 3TC + or ABC + 3TC + or d4T + 3TC +	NVP or EFV <sup>1, 2</sup>
<p>1 The preferred regimen for children, &lt; 3yrs of age, with tuberculosis is EFV + the 2 NRTI backbone.</p> <p>2 The use of EFV should be avoided in adolescent girls due to the fact that it may cause foetal harm in the first trimester of pregnancy. If possible, adolescent girls taking EFV should be switched to a NVP-based or other regimen or counselled on and provided with a contraceptive method.</p>		



- 3 Use the alternative 1<sup>st</sup> line regimen only if there are contraindications to AZT (for example, severe anaemia, <8g/dl; or neutropenia, <500 cells/mm<sup>3</sup>) or AZT availability cannot be assured.
- 4 Due to its unfavourable toxicity profile and its selection for unfavourable resistance patterns, use of d4T should be minimised; therefore d4T/3TC should only be used as a last resort for initiating infants on ART if the use of AZT or ABC is contraindicated or cannot be assured.

Note that the WHO 2010 guidelines call for the phasing out of used of d4T-containing regimens, unless AZT or ABC are contraindicated or not assured.

Doses are very different for children. The way in which drugs are distributed and metabolised in children is different to adults and varies with growth. Dosing in children is usually based on either weight or body surface area. As these change with growth, drug doses must be adjusted at each visit to avoid the risk of under-dosing. For additional information on dosing and regimens for specific scenarios (for example, clients with hepatitis), participants should refer to *Appendix 6C: ARV Dosing Guide for Children* and the *WHO Guidelines for Antiretroviral Therapy for HIV in Infants and Children, 2010 revision, Appendix E*.

### **Side effects in children**

Side effects to ARVs are thought to be less common among children than adults.

Examples of mild side-effects:

- Nausea, vomiting, and diarrhoea.
- Dizziness.
- General tiredness.
- Nail discoloration.
- Pins and needles and pains in hands, legs and feet.
- It is recommended that children remain on treatment if the side effects are mild.

Examples of serious side-effects include:

- Persistent generalised fatigue, weakness.
- Persistent nausea, vomiting, diarrhoea.
- Abdominal pain.
- Sudden unexplained weight loss.
- Respiratory difficulties.
- Neurological problems, including motor weakness.

Longer term side effects (more likely to be seen in older children):

- Fat loss from limbs, buttocks and face.
- Increased fat around abdomen and breast.

## **Clinical and laboratory monitoring for infants and children**

**The unavailability of laboratory monitoring, including CD4 and chemistries, should NOT prevent HIV-infected infants and children from receiving ART.**

For infants and children, **CD4** should be measured at the time of diagnosis, AND

- Every 6 months thereafter; but 3 monthly as CD4 count approaches threshold for starting ART, and measure just prior to starting ART.
- Every 6 months after initiating ART.
- If a new clinical staging event develops, including growth faltering and neurodevelopmental delays.

For infants and children, **baseline haemoglobin level** (and white cell count, if available) should be assessed at initiation of ART AND

- Measure haemoglobin at week 8 after initiation of AZT-containing regimens, or more frequently if symptoms indicate.
- Growth, development and nutrition should be monitored monthly.
- Laboratory monitoring for toxicity should be symptom directed.

### **Treatment failure in children**

- Lack of or decline in growth rate in children who show an initial response to treatment (WHO clinical stage 3 or 4 – moderate or severe unexplained malnutrition not adequately responding to standard therapy despite adequate nutritional support and without explanation)
- Loss of neurodevelopmental milestones or development of HIV encephalopathy (WHO clinical stage 4)
- Occurrence of new OI or malignancies, or recurrence of infections such as oral candidiasis that is refractory to treatment or esophageal candidiasis (WHO clinical stage 3 or 4)

## **Adherence and Psychosocial Support for HIV-Infected Children**

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Children living with HIV and their caregivers need ongoing practical, psychosocial, and adherence support. However, there are many barriers to adherence with paediatric ART. Children may not want to take the medicines, they may be away at school for many hours of the day or caregivers may be at work or not always with the child when the medicines need to be given.

As with adults, adherence support services for children and their caregivers should be ongoing — not one-time events — and the entire multidisciplinary team, not just nurses or counsellors, is responsible for providing these services.

- This is a task that requires addressing both the child's needs and issues and those of the caregiver:
- The child **MUST** be involved
- Assessment of child & family prior to child commencing ARVs

- Assist families in developing routine for ARVs; ARVs should NOT dictate every aspect of daily life
- Promote an open, supportive approach
- Give age-appropriate explanations to child regarding need for medication.
- Children cope far better when they are able to understand what is happening to them and have a sense of control
- Use child-sensitive, age-appropriate explanation such as “*you need the medicine to keep you strong and prevent infections*”.
- Continue support and re-assessment of each child and family’s situation.
- Encourage peer support (support from other parents and children).

A variety of **strategies** may be used to help encourage the child to take ARVs and to assist and support the caregiver. Some methods are mentioned below. They can be used individually or in combination:

- Trial runs: Finding out the best way that the child can take the medicine.
- Use a doll or puppet to demonstrate how the doll felt better after taking some medicine. Then ask the child whether they would like to try the same.
- Having a reward chart with dates and timing. Rewards can be simple, such as a visit to the park, a big hug, or doing something they like to do with the caregiver.
- Taking medication with parent.
- Peer support groups for the child and caregiver.

**Nurses should always tailor their approach to adherence to the age, developmental level, and emotional state of the child. The following are some tips for nurses when communicating or counselling children, and may be incorporated during:**

- The child’s emotional well-being, relationships with others, and developmental level (including level of understanding and capacity to express him/herself, as well as capacity for self-care) need to be assessed at every visit. This will help to ensure that expectations of the child are appropriate and take account of changes over time.
- With very young children, the focus of counselling and communication is generally on the caregiver.
- The older the child, the better the child’s understanding and ability to express him/herself.
- Communicate with the child in a manner and at a level that s/he can understand.
- Find out what the child knows. Be guided by the questions s/he asks.
- Use short, simple sentences.
- Younger children understand concrete things that they can touch and see. A doll or teddy bear can be used to make information more concrete.
- Use drawings and demonstration to help a primary school child understand.

- Encourage questions to check understanding.
- Be aware of the child's attention span. (A younger child will lose interest more quickly than an older child.)
- Watch the child's body language to determine whether s/he is taking in the information.
- If the child is inattentive, stop and try again at a later stage.

## **The Nurse's Role in Disclosure<sup>2</sup>**

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The role of the nurse in the disclosure process:

- Usually, the primary caregiver should be the person to disclose to the child. Sometimes, caregivers ask for help with the process. A healthcare worker can assist, first by preparing the caregiver and then, if asked, being present when the caregiver talks with the child. In some cases, the healthcare worker may be asked to take a more active role in the disclosure process.
- Nurses may or may not be involved in the discussions during which the adolescent is disclosed to — some caregivers prefer to do this at home, but some may prefer to come to the clinic where they can get assistance from the healthcare worker.
- The role of the nurse is to encourage open dialogue about disclosure and offer practical strategies that are tailored to the individual family situation. They can help caregivers decide what information to give to the child and when, given their child's age and development.

Supporting the caregiver in the disclosure process begins with the initial visits to clinic. The nurse should:

- Build trust by getting to know the caregiver; find out what HIV means to him or her.
- Assess the caregiver's psychosocial situation, ability to cope, answer questions, and establish their sources of support.
- Discuss the implications of disclosure with the caregiver and the family to help them consider in advance the reactions of the child, family members, friends, and teachers.
- Help the caregiver develop a plan of disclosure for the child. The plan will:
  - List any preparations they need to make before disclosure,
  - Include what they will say, how and where they will disclose, and
  - Include plans for ongoing support.
- Arrange to see the caregiver (and the child) again, to review this process.
- If there is disagreement between family members about timing and process of disclosure, assess all family members' concerns, and discuss benefits and risks of disclosure, potential harm of long-term non-disclosure. Collaborate with caregivers to make a plan tailored to the needs of the entire family.
- Always respect and try to understand caregivers' reasons for fearing or resisting disclosure. Validation of caregivers' concerns can foster a

partnership and prevent the development of an adversarial relationship between the members of the healthcare team and caregivers.

## Session 6.2

## Teaching, Mentoring, and Skills Transfer

### Session Objectives

After completing this session, participants will be able to:

- Apply their knowledge of paediatric care to specific case studies.

### Exercise 1: Paediatric HIV: Case studies , with large group discussion and role play

<b>Purpose</b>	<ul style="list-style-type: none"><li>• To review key components of paediatric HIV care for HIV-infected children, by applying participants' knowledge to specific case studies.</li></ul>
<b>Instruction</b>	<p><b>Large group discussion, with role play</b></p> <ol style="list-style-type: none"><li>1. Participants should review the case studies in their Participant Manual.</li><li>2. A participant will be asked to read the 1<sup>st</sup> case study to the entire group, and the group will discuss the answers to the first 3 questions. Then, 2 participants will be invited to role play the potential response to the 4<sup>th</sup> question in front the of the large group (eg. How the nurse mentor would address the situation with the mentee).</li><li>3. Upon completion of the role play, participants will asked to get feedback about what worked well and what needed improvement during the role play.</li><li>4. A participant will be invited to read the 2<sup>nd</sup> case study to the entire group (the 2<sup>nd</sup> case study lends itself more to discussion than role play); the group will be invited to discuss the nurse's potential actions or next steps, using the questions as a guide.</li><li>5. A participant will be asked to read the 3<sup>rd</sup> case study to the entire group (the 3<sup>rd</sup> case study lends itself more to discussion than role play); the group will be invited to discuss the nurse's potential actions or next steps, using the questions as a guide.</li><li>6. The trainer will ask 3 participants to role play the 4<sup>th</sup> case study in front of the large group. One participant will be the "nurse" and the others will play the parts of the "caregiver" and "child client." The "nurse", "caregiver", and "child client" have about 5–8 minutes to conduct their role play. Participants can refer to <i>Appendix 6D: Adherence Preparation and Support Guides</i> as guidance during this exercise.</li><li>7. Participants will be invited to report key findings on things that the "nurse" did well and the things they</li></ol>

	can do to improve their counselling. asking the following questions:
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### **Exercise 1: Paediatric HIV: Case studies, with large group discussion and role play**

#### **Case Study 1:**

Remember that T\_\_\_, from the previous module, has given birth to twins. Her infants are now 13 months old. T\_\_\_ comes to the clinic today and has spent 3 hours in a crowded waiting room with her child. She has brought one of her twins, D\_\_\_, who has had a fever for 3 days. T\_\_\_ is finally ushered into the exam room by your mentee, who seems tired and a bit distracted. You are there to observe the visit with the client, so you can feedback to your mentee later. She takes D\_\_\_'s temperature and weight, tells him to take off his shirt, and leaves the room. A few minutes later, your mentee returns and asks, "*Why are you here today?*" T\_\_\_ describes the fever and other symptoms; your mentee does not comment. She examines the child without speaking to him, and then says, "*It's just a virus. He will be OK.*" and leaves.

- *How well did the nurse engage the caregiver and child in this case?*
- *What would have improved this situation?*
- *What steps, in terms of routine care, should the nurse have taken?*
- *As a nurse mentor an educator, how would address with your mentee? (role play)*

#### **Case Study 2:**

Three months later, T\_\_\_ returns to the clinic with her other twin, B\_\_\_, who you are seeing for the first time today. Because T\_\_\_ is trying to look for employment during the day, her twins are cared for by a neighbour in the morning and T\_\_\_'s younger cousin, once she returns from school in the afternoon. T\_\_\_ reports that both twins are behind on their vaccinations, because she has not had time to bring him to clinic. She does not express any particular worries about their growth or development, but her neighbour insisted that she bring B\_\_\_ to the clinic because she thinks something is wrong and that B\_\_\_ seems "slow".

- *What approach would you take with T\_\_\_? What questions would you ask?*
- *What would you look for in observing B\_\_\_ and on the physical examination?*
- *What might be some of your next steps with this family?*

#### **Case Study 3:**

T\_\_\_ returns to the clinic and states that has been very unwell over the past 6 months. After treatment for cryptosporidiosis, she started ARVs. Unfortunately, although she recovered from cryptosporidiosis, her overall health has remained poor. She keeps getting recurrent chest infections. At the clinic, T\_\_\_ reveals that she frequently forgets to take her ARVs. In further discussion, she informs you that her partner left her 6 months ago and she is feeling very depressed and alone. At the same clinic

appointment, the twins, D\_\_\_ and B\_\_\_, also seen by the doctor. The doctor informs T\_\_\_ that 1 of the twins, B\_\_\_ is HIV-infected.

- *How you would proceed with T\_\_\_ and B\_\_\_?*
- *What next steps, in terms of care, would you take with this family?*

**Case Study 4:**

T\_\_\_'s daughter, B\_\_\_, will begin taking ART today. T\_\_\_ will be responsible for giving her children their medicines every day, but she is worried how she will manage.

- *How would you help T\_\_\_ prepare for adherence at the clinic today.*
- *What questions would you ask to assess her understanding of adherence and readiness for her children to start ART?*



## Session 6.3      Additional Learning Activities and Resources

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### Session Objective

**After completing this session, participants will be able to:**

- Describe independent and supplemental learning activities for the module.

### Independent Learning Activities

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Ask participants to work in pairs and choose one or more of the following learning activities:

- Design a creative counselling tool or job aid that could be used to assist and support caregivers and children with ART adherence. Remind participants to accommodate the possibility of caregivers being illiterate or innumerate and living in resource-poor settings.
- Facilitate a lunchtime discussion with members of the multidisciplinary team. Ask the following questions to facilitate discussion, and summarise the discussion in a brief paper:
  - *Based on your personal and professional experiences, what are some key differences between adults and children that relate to health and health care?*
  - *What does family-centred care mean to you?*
  - *Why would we want our care to be family-centred?*
  - *How can we make sure our care is family-centred?*
  - *Describe the difference between HIV testing of a child versus an adult.*
  - *What are some of the challenges and considerations for HIV testing of infants and children?*
- Present the key steps to set up and implement paediatric PITC. Ask participants to imagine that, for this assignment, that THEY are the director at a site that is establishing a new paediatric PITC service. Ask participants to develop an action plan addressing the following question:
  - *What do you think will be needed to set up YOUR new paediatric PITC service?*
- Co-facilitate or assist with a support group for caregivers to discuss adherence issues from the family perspective. Ask caregivers to describe challenges of caring for their HIV infected children, adherence issues as well as challenges they face communicating with providers and engaging the health care service system. Summarise your findings in a brief paper.
- Facilitate a lunchtime training session with nurses and other members of the multidisciplinary care team to discuss their experience with addressing disclosure of HIV status to an HIV-infected child. Discuss the pros and cons of disclosure; discuss disclosure as an ongoing process; describe a developmental appropriate approach to disclosure; talk

about family responses and expectations around disclosure; list obstacles to disclosure, and share team members' approaches to answering a child's questions about the illness in an age appropriate manner in a brief paper.

## Session 6.4      Action Planning

### Session Objective

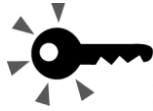
**After completing this session, participants will be able to:**

- Develop a site-specific action plan to overcome mentoring and systems barriers to providing quality paediatric care to HIV-infected children at their clinics.

### Exercise 2: Overcoming Systems and Mentoring Challenges with Paediatric HIV: Small group work and large group discussion

<b>Purpose</b>	<ul style="list-style-type: none"> <li>• To strengthen participants' systems thinking and problem solving abilities, in relation to nurse mentoring and the delivery of paediatric HIV services</li> </ul>
<b>Instruction</b>	<p><b>Part 1: Small Group Work</b></p> <ol style="list-style-type: none"> <li>1. The trainer will begin the exercise by breaking up participants into small groups of 4-5 individuals each. Participants from the same clinic should work together.</li> <li>2. Participants should refer to <i>Appendix 6E: Action Plan Worksheet</i> during this exercise.</li> <li>3. Each group will be invited to reflect on the barriers to paediatric care and nurse mentoring in the clinic setting listed below: <ul style="list-style-type: none"> <li>• <i>Your mentees who lack previous pediatric ART training are seeing pediatric clients and are not comfortable with providing care to children.</i></li> <li>• <i>Your mentees do not encourage adult clients to bring in children for testing and/or subsequent ART treatment when it is needed.</i></li> <li>• <i>There is poor adherence to ART among HIV-infected children at your clinic.</i></li> </ul> </li> <li>4. Groups will be invited to think of a solution that nurse mentors and educators might be able to implement, in response to each barrier or problem, using these questions as a guide: <ul style="list-style-type: none"> <li>• <i>What will we do about this barrier or problem?</i></li> <li>• <i>What do we want to achieve?</i></li> </ul> </li> <li>5. Participants should remember that good solutions are "SMART," or: <ul style="list-style-type: none"> <li>• <b>Specific:</b> It addresses the matter specifically</li> <li>• <b>Measurable:</b> It can be measured to determine whether it has been achieved.</li> <li>• <b>Achievable:</b> It is within the means and capacity of your group.</li> <li>• <b>Realistic:</b> It is practical and can be accomplished within a reasonable time frame.</li> <li>• <b>Time-bound:</b> The time period for reaching it is</li> </ul> </li> </ol>

	<p>clearly specified.</p> <p>6. Participants will list 1-3 specific strategies, activities, or “next steps” to achieve each solution.</p> <p>7. For each activity, the groups will answer the following questions:</p> <ul style="list-style-type: none"> <li>• <i>Who is responsible for this activity?</i></li> <li>• <i>When will you be able to implement this activity?</i></li> <li>• <i>What kind of support or resources (including funds) do you need in order to achieve this activity?</i></li> <li>• <i>Any other comments to note about this activity or strategy?</i></li> </ul> <p>8. Groups should use <i>Appendix 6E: Action Plan Worksheet</i> to record their plans.</p> <p><b>Part 2: Large Group Discussion</b></p> <p>9. Each group has 5 minutes for presenting their plans to the larger group.</p> <p>10. After each group presents, other participants will be invited to suggest other solutions that were not listed.</p>
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## Module 6: Key Points

- The goal of diagnosing children as early as possible is to identify HIV-exposed and HIV-infected children and engage them in life-saving care. Early access to HIV care and treatment can delay or limit disease progression, improve health and prevent death.
- Growth is a sensitive indicator of child health and growth faltering is common in children living with HIV. For children known to be HIV-infected, growth faltering may be a sign of disease progression. This may signal a need to initiate or change ARV therapy.
- Nurses can refer to the *WHO Integrated Management of Childhood Illness for High HIV Settings (2008)* for additional guidance. It has guidelines for HIV-exposed and -infected children on infant and young child feeding, immunisation, cotrimoxazole prophylaxis, Vitamin A, zinc and other micronutrient supplementation, as well as nutritional support.
- **The WHO recommends that all HIV-infected infants (PCR+) less than 12 months of age and all children 12 -24 months should start ART, regardless of CD4 result or WHO Stage, but it is important to follow your national guidelines.**
- Children living with HIV and their caregivers need ongoing practical, psychosocial, and adherence support. Promoting adherence is multifaceted and must be a continuous process.
- Children living with HIV and their caregivers need ongoing practical, psychosocial, and adherence support. Adherence support services should be ongoing — not one-time events — and the entire multidisciplinary team is responsible for providing these services.
- The role of the nurse is to encourage open dialogue about disclosure of HIV and offer practical strategies that are tailored to the individual family situation. They can help caregivers decide what information to give to the child and when, given their child's age and development.

## Appendix 6A: Developmental Checklist

Developmental Checklist		
Age	Milestones	Potential Problems
3 months	<ul style="list-style-type: none"> <li>• Turns head toward sound</li> <li>• Smiles</li> <li>• Raises head when on stomach</li> <li>• Brings hand to mouth</li> <li>• Watches faces intently</li> <li>• Recognises familiar people</li> <li>• Follows moving objects with eyes</li> <li>• Vocalises</li> </ul>	<ul style="list-style-type: none"> <li>• Does not seem to respond to loud noises</li> <li>• Floppy or excessively stiff</li> <li>• Poor sucking or swallowing</li> <li>• No visual fixation or following asymmetry of tone or movement</li> <li>• Excessive head lag</li> <li>• Does not smile</li> </ul>
6 months	<ul style="list-style-type: none"> <li>• Sits unsupported or with minimal support</li> <li>• Babbles</li> <li>• Turns to caregiver's voice</li> <li>• Reaches for familiar persons</li> <li>• Reaches for objects</li> <li>• Shows likes and dislikes</li> <li>• Plays with feet when prone</li> <li>• Rolls over</li> </ul>	<ul style="list-style-type: none"> <li>• Floppiness or excessive stiffness</li> <li>• Failure to use both hands</li> <li>• No response to sound</li> <li>• Squinting or inability to move both eyes</li> <li>• Does not roll over</li> </ul>
9 months	<ul style="list-style-type: none"> <li>• Sits without support</li> <li>• Rolls over</li> <li>• Babbles and imitates sounds</li> <li>• Understands a few words</li> <li>• Able to drink from a cup and hold a bottle</li> <li>• Points at objects or people</li> <li>• Pulls to stand</li> </ul>	<ul style="list-style-type: none"> <li>• Floppiness or excessive stiffness</li> <li>• Unable to sit</li> <li>• No response to sound</li> <li>• Squinting or inability to move both eyes, follow object or face</li> <li>• Persistence of primitive reflexes</li> </ul>
12 months	<ul style="list-style-type: none"> <li>• May walk alone or "creep" around furniture</li> <li>• Imitates actions</li> <li>• Looks for toys or objects that are out of sight</li> <li>• Responds to own name</li> <li>• Understands simple commands,</li> <li>• Feeds self finger foods</li> </ul>	<ul style="list-style-type: none"> <li>• Unable to bear weight on legs</li> <li>• No single words</li> <li>• Does not point to objects</li> <li>• Does not use gestures, such as waving or shaking head</li> <li>• No response to sound</li> <li>• Unable to grasp objects</li> </ul>
18 months	<ul style="list-style-type: none"> <li>• Runs</li> <li>• Scribbles</li> <li>• Throws a ball</li> <li>• Climbs onto chair</li> <li>• Obvious hand preference</li> <li>• Can say 6-20 words</li> <li>• Spoon feeds</li> <li>• Imitates actions</li> <li>• Walks backward</li> </ul>	<ul style="list-style-type: none"> <li>• Failure to walk</li> <li>• Unable to understand simple commands</li> <li>• Cannot say any words</li> <li>• Unable to grasp small objects</li> </ul>
2 years	<ul style="list-style-type: none"> <li>• Combines words</li> <li>• Asks for food, drink, and toilet</li> <li>• Handles spoon well, spoon feeds without mess</li> <li>• Pretend play</li> <li>• Looks at pictures</li> </ul>	<ul style="list-style-type: none"> <li>• Does not develop mature heel-toe walking pattern after several months of walking, or walks only on toes</li> <li>• Does not use a 2-word sentence</li> <li>• Does not understand simple</li> </ul>

		<b>Instruction</b> <ul style="list-style-type: none"> <li>• Poor coordination</li> </ul>
3 years	<ul style="list-style-type: none"> <li>• Climbs</li> <li>• Goes up and down stairs</li> <li>• Knows name and sex</li> <li>• Balances on one foot</li> <li>• Puts on a shirt</li> <li>• Speech is understandable</li> </ul>	<ul style="list-style-type: none"> <li>• Unstable walk</li> <li>• Few words, no sentences</li> <li>• No involvement in “pretend” play</li> <li>• No interest in other children</li> </ul>
4 years	<ul style="list-style-type: none"> <li>• Hops</li> <li>• Knows full name and age</li> <li>• Recognises colours</li> <li>• Dresses and undresses</li> <li>• Make-believe play</li> </ul>	<ul style="list-style-type: none"> <li>• Speech difficult to understand because of poor articulation, omission, or substitutions of consonants</li> <li>• No interest in interactive games</li> <li>• No interest in other children</li> <li>• Does not use sentences</li> </ul>

Source: Republic of Zambia, Ministry of Health. (2010). *National Training Package on Provider-Initiated Paediatric HIV Testing & Counselling in Zambia*.

## Appendix 6B: WHO Staging for Children with Established HIV Infection

<b>Clinical Stages</b>	
<b>Clinical Stage 1</b>	
<ul style="list-style-type: none"> <li>Asymptomatic</li> </ul>	<ul style="list-style-type: none"> <li>Persistent generalised lymphadenopathy</li> </ul>
<b>Clinical Stage 2</b>	
<ul style="list-style-type: none"> <li>Unexplained persistent hepatosplenomegaly</li> <li>Papular pruritic eruptions</li> <li>Extensive wart virus infection</li> <li>Extensive molluscum contagiosum</li> <li>Unexplained persistent parotid enlargement</li> </ul>	<ul style="list-style-type: none"> <li>Recurrent oral ulcerations</li> <li>Lineal gingival erythema</li> <li>Herpes zoster</li> <li>Recurrent or chronic upper respiratory tract infection (otitis media, otorrhea, sinusitis, tonsillitis)</li> <li>Fungal nail infections</li> </ul>
<b>Clinical Stage 3</b>	
<ul style="list-style-type: none"> <li>Unexplained moderate malnutrition not adequately responding to standard therapy</li> <li>Unexplained persistent diarrhoea (14 days or more)</li> <li>Unexplained persistent fever (above 37.5°C intermittent or constant, for longer than 1 month)</li> <li>Persistent oral Candida (outside first 6–8 weeks of life)</li> <li>Acute necrotising ulcerative gingivitis/periodontitis</li> </ul>	<ul style="list-style-type: none"> <li>Oral hairy leukoplakia</li> <li>Lymph node TB</li> <li>Pulmonary TB</li> <li>Severe recurrent presumed bacterial pneumonia</li> <li>Symptomatic lymphoid interstitial pneumonitis</li> <li>Chronic HIV-associated lung disease including bronchiectasis</li> <li>Unexplained anaemia (&lt;8g/dl), neutropenia (&lt;0.5 x 10<sup>9</sup>) or chronic thrombocytopenia (&lt;50 x 10<sup>9</sup>/l)</li> </ul>
<b>Clinical Stage 4</b>	
<ul style="list-style-type: none"> <li>Unexplained severe wasting, stunting or severe malnutrition not responding to standard therapy</li> <li>Pneumocystis pneumonia</li> <li>Recurrent severe bacterial infections (for example, empyema, pyomyositis, bone or joint infection, meningitis, but excluding pneumonia)</li> <li>Chronic herpes simplex infection; (orolabial or cutaneous &gt; 1 month's duration or visceral at any site)</li> <li>Extra pulmonary tuberculosis</li> <li>Kaposi sarcoma</li> <li>Esophageal candidiasis (or Candida of trachea, bronchi or lungs)</li> <li>Central nervous system toxoplasmosis (outside the neonatal period)</li> <li>HIV encephalopathy</li> <li>Chronic Isosporiasis</li> </ul>	<ul style="list-style-type: none"> <li>Cytomegalovirus (CMV) infection; retinitis or CMV infection affecting another organ, with onset at age &gt;1 month.</li> <li>Extra pulmonary cryptococcosis including meningitis</li> <li>Disseminated endemic mycosis (extra pulmonary histoplasmosis, coccidiomycosis, penicilliosis)</li> <li>Chronic Cryptosporidiosis</li> <li>Disseminated non-tuberculous mycobacteria infection</li> <li>Acquired HIV-associated rectal fistula</li> <li>Cerebral or B cell non-Hodgkin lymphoma <ul style="list-style-type: none"> <li>Progressive multifocal leukoencephalopathy</li> <li>HIV-associated cardiomyopathy or HIV-associated nephropathy</li> </ul> </li> </ul>

Source: Republic of Zambia, Ministry of Health. (2010). *National Training Package on Provider-Initiated Paediatric HIV Testing & Counselling in Zambia*.



## Appendix 6C: ARV Dosing Guide for Children

Target Dose	Stavudine (d4T)	Lamivudine (3TC)	Zidovudine (AZT)	Didanosine (ddI)	Abacavir (ABC)	Efavirenz (EFV)	Nevirapine (NVP)	Lopinavir/ritonavir (LPV/r)rtv)	Ritonavir boosting (RTV)	CTX	Multivitamins	
<i>Available formulations * Wt. (kg.)</i>	1 mg/kg/dose TWICE daily	4-6 mg/kg/dose TWICE daily	240mg/m <sup>2</sup> /dose TWICE daily	90-120mg/m <sup>2</sup> /dose TWICE daily	8mg/kg/dose TWICE daily	By wt. band ONCE daily	150 mg/m <sup>2</sup> /dose TWICE daily	300/75mg/m <sup>3</sup> /dose LPV/r)rtv TWICE daily	**ONLY as booster for LPV/r)rtv when on Rifampicin TWICE daily	Once Daily	Once Daily	
	Sol. 1mg/ml Caps 15, 20, 30mg	Sol. 10mg/ml Tabs 150mg (scored)	Sol. 10mg/ml Caps 100mg Tabs 300mg (not scored)	Tabs 25, 50, 100mg (dispensable in 30ml water) Caps 250mg EC	Sol. 20mg/ml Tabs 300mg (not scored)	Caps 50, 200mg Tabs 50, 200, 600mg (not scored)	Sol. 10mg/ml Tabs 200mg (scored)	Sol. 80/20mg/ml Tabs 200/50mg, 100/25mg	Sol. 80mg/ml	Sol 40/200mg /5ml Tabs 80/400mg (scored)	Sol. Tabs (B Co)	
<3	<b>Consult with a clinician experienced in paediatric ARV prescribing for neonates (&lt;28 days of age) and infants weighing &lt;3kg</b>											
3-3.9	6ml	3ml	6ml	AVOID			5ml	1ml	**1ml	2.5ml		
4-4.9					3ml							
5-5.9	7.5mg: open 15mg capsule into 5ml water; give 2.5ml & discard rest			2x25mg tabs		Dosing <10kg not established	8ml	1.5ml	**1.2ml		2.5ml	
6-6.9		4ml	9ml		4ml							
7-7.9	10mg: open 20mg capsule into 5ml water; give 2.5ml & discard rest			1x50mg+1x25mg tabs am; 2x25mg tabs pm								
8-8.9				1x50mg tabs + 1x25mg tabs	? ml	200mg caps/tabs	10ml	2ml twice daily OR 100/25mg tabs; 2 tabs am; 1 tab pm	**1.5ml	5ml OR ½ tab		
9-9.9		6ml	12ml	2x50mg tabs								
10-10.9	15ml: open 15ml capsule into 5ml water			2x50mg tabs am; 1x50mg + 1x25mg tabs pm	? ml							
11-11.9				2x50mg tabs								
12-13.9		½ tab	2 caps am; 1 cap pm	1x50mg + 1x25mg tabs pm			1 tab am; ½ tab pm	2.5ml twice daily OR 100/25mg tabs; 2 tabs twice daily	**2ml	10ml or 1 tab	5ml	
14-16.9	20mg: open 20mg capsule into 5ml water			2x50mg tabs	60ml	200mg caps/tabs+50 mg cap/tab						
17-19.9		1 tab am; ½ tab pm	2 caps	1x100mg tab+ 1x25mg tab twice daily OR		200mg cap/tab + 2x50 mg caps/tabs		3ml twice daily OR 100/25mg tabs; 3 tabs am; 2 tabs pm	**2.5ml			
20-24.9	20mg am; 30mg pm											

25-29.9	30mg	1 tab	1 tab	1x250mg EC cap once daily	1 tab	200mg caps/tabs + 3x50mg caps/tabs	1 tab	3.5ml twice daily OR 200/50mg tabs; 2 tabs am; 1 tab pm	**3ml	2 tabs	1 tab
30-34.9			1 tab		1 tab	2x200mg caps/tabs	1 tab	4ml twice daily OR 200/50mg tabs; 2 tabs am; 1 tab pm	**4ml		
35-39.9						600mg tab		5ml twice daily OR 200/50mg tabs; 2 tabs twice daily			
>40											

Source: World Health Organization. 2010. *Antiretroviral therapy for HIV infection in infants and children. Recommendations for a public health approach. 2010 revision.*

## Appendix 6D: Adherence Preparation and Support Guides

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### How to use these guides:

These adherence preparation and support guides were developed to assist a range of providers (trained counsellors, lay counsellors, Peer Educators, doctors, nurses, pharmacists, community healthcare workers, and others) who work with children living with HIV and their caregivers. These guides can help providers work with caregivers of HIV-infected children to understand the importance of adherence to HIV care and treatment throughout their child's life; to ensure understanding of the care and medications plan; to identify potential adherence challenges; and to come up with practical solutions. The adherence guides should be adapted to reflect national HIV care and treatment guidelines, as well as the specific clinic, community, and cultural contexts in which they are used, including the age and situation of the individual adolescent client. It may be helpful to translate the guides into the local language.

### Included in this guide are 2 adherence assessments:

- The *Adherence Preparation/Support Guide for Assessing Caregivers' Readiness for ART* can be used to assess adherence readiness and help caregivers to develop a personal adherence plan for their child. The assessment questions should be used to identify areas where the caregiver and client may need additional information and support.
- The *Adherence Assessment for Caregivers of Children Taking ART* can be used at every follow up and refill visit to ensure that the caregivers understand their child's care and medication plan, and that the child is taking his or her medicines the correct way, every day. The assessment questions should be used to identify areas where the caregiver and client may need additional information and support.

Included in this guide is one adherence preparation and support guide to assess caregiver's readiness for their child to start ART and one to assess the adherence of caregivers. The forms should be adapted as needed and used during adherence counselling sessions, according to the caregiver's needs and situation. Completed adherence assessment forms should be kept in the client's file and referred to during follow-up visits.

### Basic information:

Write the client's name, age, file number, as well as the caregiver's name at the top of the form. Be sure to sign and date the form at the end of each session and ensure that the form is kept in the client's clinic file.

**Questions to ask the caregiver:**

The questions in this section allow the health worker to discuss specific care, medication, and adherence issues with the caregiver. The questions should be used to identify areas where the caregiver may need additional information and support, but should not be used to “score” their knowledge and readiness to take ARVs. It is important to allow time for the caregiver to respond to each question. Caregivers should always be made to feel comfortable asking questions and expressing potential adherence challenges and they should never be judged or punished. Remember to write down any important information from their responses, as this will help decide on next steps, important areas for follow up, and in supporting the client’s adherence over the long term.

**Caregiver requires more counselling and support in these areas:**

Write down specific areas in which the caregiver and client need ongoing adherence counselling and support. Refer to this section of the form during follow-up counselling appointments and clinic visits. Even if a caregiver has questions about their child’s care and medicines, or is facing specific adherence challenges, this is usually not a reason to delay initiation of ARVs/ART. Instead, these issues should be viewed as important areas for ongoing counselling and support.

## Adherence Preparation/Support Guide for Assessing Caregivers' Readiness for ART

**Client's Name:** \_\_\_\_\_ **Client's Age:** \_\_\_\_\_ **Client's File#:** \_\_\_\_\_

**Caregiver and/or Treatment Buddy's Name:** \_\_\_\_\_

Questions to ask the caregiver:	Notes
1. Can you tell me what support group or group education sessions you and your child have attended here at the clinic?	
2. Can you explain why your child needs to take ARVs?	
3. Who knows about your child's HIV status?	
4. What do you expect from your child taking ARVs?	
5. How do you feel about your child taking medicines every day for his or her lifetime?	
6. Can you tell me the names of the ARVs your child will be taking and when he or she will take them (how many pills, what times of day)?	
7. Can you tell me some possible side effects of your child's ARVs? What will you do if your child has side effects?	
8. Can you explain what happens if your child does not take all of his or her ARVs every day, at the same time?	
9. Who will help your child come to the clinic for appointments and help him or her take his or her medicines every day? What is your contact information/other supporters' contact information?	
9a. If someone other than the caregiver, has he or she been to the clinic with your child?	
9. What might make it difficult for your child to come to this clinic for his or her appointments?	
10. How will your child remember to come for his or her clinic appointments?	
11. How will your child remember to take his or her medicines the right way, at the same time, every day?	
12. Is your child taking any medicines — other than the ones prescribed to him or her by the doctor or nurse (including traditional or herbal medicines)?	
13. Where will you store the medicines?	
14. What will you do if you are about to run out of medicine(s)? What about if you or your child will be away from each other, or away from home, such as when he or she is at school?	

15. What will you do if the child misses a dose of the medicine?	
16. What questions do you have about the plan for your child's care or medicines?	
17. Do you feel that you and your child are ready to start taking these medicines?	

**Caregiver requires more counselling and support in these areas (LIST):**

**Signature of person completing assessment:** \_\_\_\_\_ **Date:** \_\_\_\_\_


Adapted from: ICAP. 2010. *Improving Retention, Adherence, and Psychosocial Support within PMTCT Services: A Toolkit for health workers.*

## Adherence Assessment for Caregivers of Children Taking ART

Client's Name: \_\_\_\_\_ Client's Age: \_\_\_\_\_ Client's File#: \_\_\_\_\_

Caregivers Name: \_\_\_\_\_

Tick one:  2-week follow up  1-month follow up  monthly refill  3-month refill

Questions to ask the caregiver:	Notes
1. Can you tell me more about how your child took his or her medications this past month (or 2 weeks)? (Do you know the names of the medicines? How many pills does he or she take? At what time of day does he or she take them?)	
2. I would like you to think about the last 7 days. How many pills did your child take late in the last 7 days? What were the main reasons he or she took them late?	
3. How many pills did your child miss in the last 7 days? What were the main reasons he or she missed them?	
4. If we put all the pills your child had to take in the last 2 weeks into one cup this is what you would see. If he or she took all of them the cup would be empty. If he or she forgot to take all of them the cup would be full. Which of these pictures best shows how many of your child's doses he or she took in the last month (or 2 weeks)? (circle one)	
5. How did the medicines make your child feel?	
6. Can you tell me about any changes you or your child noticed (such as in your child's health) or challenges your child had with his or her medicines?	
7. What support or reminders does your child have to help him or her take his or her medicines at the same time, every day?	
8. What questions do you have about your child's care or your medicines?	

Other assessment measures and next steps:	Notes
Referrals made:	
Next steps and follow-up plan:	Next appointment date: _____

Notes:

Signature of person completing assessment: \_\_\_\_\_ Date: \_\_\_\_\_

Adapted from: ICAP. 2010. *Improving Retention, Adherence, and Psychosocial Support within PMTCT Services: A Toolkit for health workers.*

## Appendix 6E: Action Plan Worksheet

What is the problem?	What is your solution to this problem?	What are your strategies, activities, or “next steps” to achieve the solution?	What is your timeframe?	What resources or support are needed?	Comments
<p><i>Your mentees who lack previous pediatric ART training are seeing pediatric clients and are not comfortable with providing care to children.</i></p>		1.			
		2.			
		3.			
<p><i>Your mentees do not encourage adult clients to bring in children for testing and/or subsequent ART treatment when it is needed.</i></p>		1.			
		2.			
		3.			
<p><i>There is poor adherence to ART among HIV-infected children at your clinic.</i></p>		1.			
		2.			
		3.			



## References and Resources

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<sup>1</sup> Borrowed from Republic of Zambia, Ministry of Health. (2010). *National Training Package on Provider-Initiated Paediatric HIV Testing & Counselling in Zambia*.

<sup>2</sup> The South to South Partnership for Comprehensive Family HIV Care and Treatment Program; International Center for AIDS Care and Treatment Programs; François Xavier Bagnoud, University of Medicine and Dentistry of New Jersey. 2010. "HIV Care & Treatment Training Series", Module 6: Disclosure Process for Children Ages 3 to 18 Living with HIV. Pages 6-19.

# Module 7      Tuberculosis and HIV

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**Session 7.1: Review of Key Competencies and Key Updates for Tuberculosis and HIV**

**Session 7.2: Teaching, Mentoring, and Skills Transfer**

**Session 7.3: Additional Learning Activities**

**Session 7.4: Action Planning**

## **Learning Objectives**

**After completing this module, participants will be able to:**

- Review clinical manifestations, diagnosis, prevention, and treatment of tuberculosis (TB).
- Review how to implement the WHO's "Three I's" in the clinic setting.
- Discuss challenges one may encounter when simultaneously using ART and anti-TB drugs to treat co-infected individuals.
- Apply their knowledge of care and treatment of co-infected clients to specific case studies.
- Describe alternative and supplemental learning activities for the module.
- Develop a site-specific action plan to overcome barriers to implementing "Three I's" at their clinics.

## Session 7.1

# Review of Key Competencies and Key Updates for Tuberculosis and HIV

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### Session Objectives

**After completing this session, participants will be able to:**

- Review clinical manifestations, diagnosis, prevention, and treatment of tuberculosis (TB).
- Review how to implement the WHO's "Three I's" in the clinic setting.
- Discuss challenges one may encounter when simultaneously using ART and anti-TB drugs to treat co-infected individuals.

### Overview of TB

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- TB is caused by inhaling *Mycobacterium tuberculosis* (*M. tuberculosis*) bacilli. These droplets are mainly produced by TB-infected adolescent and adults with cavities in their lungs. If infection is successfully established, a primary focus forms in the lung, then bacilli spread to the lymph nodes and later via the lymph and blood to organs throughout the body.
- There are two types of TB. The type that affects the lungs is pulmonary TB (PTB) and is the most common type. The type that affects other parts of the body other than the lungs is called extra pulmonary TB (EPTB) is becoming more common, especially due to HIV. Both types of TB are caused by the same TB bacteria.
- Other parts of the body commonly affected by TB are lymph nodes, skin, spine, intestines, and the brain.
- TB can remain in an inactive (dormant) state for years without causing symptoms or spreading to other people.
- When the immune system of a client with dormant TB is weakened, the TB can become active (reactivate) and cause infection in the lungs or other parts of the body.
- The risk factors for acquiring TB include close-contact situations, alcohol and injection drug use, and certain diseases (for example, diabetes, cancer, and HIV) and occupations (for example, health-care workers).
- TB and HIV are overlapping epidemics. HIV is the greatest risk factor for TB. An HIV positive person has a 50% chance of developing TB in lifetime (5- 15% chance per year).

### Screening for TB

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The WHO 2011 Guidelines on ICF and IPT propose that PLHIV be screened for TB with a simple clinical algorithm at each and every clinic visit, regardless of the reason for the visit. The guidelines recommend that adults and adolescents who report any one of the symptoms of current

cough, fever, weight loss, or night sweats be evaluated further for TB and other diseases.

Other symptoms of TB can include:

- Sputum production which may occasionally be blood stained
- Loss of appetite, malaise, tiredness
- Shortness of breath, chest pains
- New palpable lymphadenopathy
- Tachycardia (elevated heart rate)
- Fever
- Crackles, wheezes heard in the lungs
- Weight loss
- Laboured breathing

Nurses should screen all HIV-infected clients for signs and symptoms of active TB at each clinic visit. If a client has symptoms suggestive of TB, investigate as per national guidelines. It is very important to investigate clients for TB before starting ARV therapy and to routinely screen patients on ARV therapy.

## Diagnosis of TB

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**TB can be diagnosed in several different ways, including chest X-rays, analysis of sputum, and skin tests.**

- **Direct microscopy** is the most reliable and cost effective way to identify persons who are most likely to transmit TB to others. Examination of the sputum on a slide (smear) under the microscope can show the presence of the TB-like bacteria. Bacteria of the Mycobacterium family, including atypical mycobacteria, stain positive with special dyes and are referred to as acid-fast bacteria (AFB).
  - **Sputum smear positive:** Treatment is started for those who have one or two positive sputum smears.
  - **Sputum smear negative:** The patient who tests negative on sputum smear microscopy on at least two specimens should have a chest X-ray to look for radiographic abnormalities that are consistent with active TB. Treatment should be started if the X-ray shows signs of active TB and there is a decision made by a clinician to treat with a full course of anti-TB medications.
- Examination by **mycobacterial culture** is the gold standard of TB diagnosis. A sample of the sputum also is usually taken and grown (cultured) in special incubators so that the TB bacteria can subsequently be identified as TB or atypical TB. Traditionally, sputum is collected for three successive mornings and then examined. However, culture is more costly and time-consuming than microscopy, and requires specialised media and skilled laboratory personnel. Indications for the need to use culture are as follows:

- History of previous unsuccessful TB treatment (interruption, failure, relapse).
  - In cases where drug susceptibility testing is necessary e.g. where contact may be multiple drug resistant (MDR).
  - Clients who remain positive at the end of the intensive phase of treatment and or at the end of the treatment period.
  - Clients who have two negative smears, not responded to a course of antibiotics and clinically TB is suspected.
- Several types of **skin tests** are used to screen for TB infection. These so-called tuberculin skin tests include the Tine test and the Mantoux test, also known as the PPD (purified protein derivative) test.
  - In each of these tests, a small amount of purified extract from dead TB bacteria is injected under the skin. If a person is not infected with TB, then no reaction will occur at the site of the injection (a negative skin test). If a person is infected with TB, however, a raised and reddened area will occur around the site of the test injection. This reaction, a positive skin test, occurs about 48-72 hours after the injection. When only the skin test is positive, or evidence of prior TB is present on chest X-rays, the disease is referred to as "latent TB." This contrasts with active TB as described above, under symptoms.
  - **Radiography (chest x-rays)** has more than 90% sensitivity but only 65-70% specificity for detecting PTB. A chest x-ray is an important tool in supporting the diagnosis of PTB in symptomatic individuals whose sputum smears are negative for AFB but it is not possible to diagnose PB using chest x-rays only.

### **TB Diagnosis and HIV Status**

- TB patients with severe immunodeficiency are less likely to have positive sputum smears because of a decreased ability to mount an inflammatory response. Important to recognise the clinical and chest radiographic characteristics of HIV-TB, so patients who are smear-negative can be recognised and treated appropriately.
- It can be difficult to recognise latent TB infection in someone with HIV, because the tuberculin skin test (TST) (or purified protein derivative, PPD) for latent disease can be difficult to interpret. Advancing HIV disease causes some people to be anergic on TST (without substantial reactions) so some experts recommend using a lower cut-off (a reaction  $\geq 5\text{mm}$  rather than  $\geq 10\text{mm}$ ) as a positive result.
- The symptoms and signs of TB and those of other HIV-related lung disease may be indistinguishable. Symptoms such as chronic cough, weight loss, lymphadenopathy and fever are common with other HIV-related lung diseases.

## **Prevention of TB<sup>1</sup>**

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In countries with high TB and HIV burdens, the World Health Organization recommends the “Three I’s” strategy for controlling these dual diseases: intensified TB case finding, isoniazid preventive therapy (IPT), and infection control for TB.

### **Intensified TB case finding**

- Main features of intense case finding include: asking a series of symptom screening questions at every visit (current cough, fever, night sweats, or weight loss); conducting an appropriate diagnostic evaluation for anyone with a positive symptom screen; and performing TB screening for household contacts of all index patients.
- When a client is diagnosed with any form of TB, close family or household members should be carefully questioned for symptoms suggestive of TB, as one of them may have been the source case that infected the child. If a source case is identified, other children in the house, or who may have been exposed to the index case, should also be evaluated for TB.

### **Infection Control**

- TB infection control refers to the development and implementation of basic infection control practices in facilities and communities where individuals are at risk of transmitting or contracting TB.
- The co-mingling of TB patients with immunosuppressed patients on hospital wards and in crowded waiting areas provides an ideal setting for transmitting TB.
- It is critical for health facilities to implement simple and effective TB infection prevention measures.
- *Appendix 7B: Infection Control Checklist* provides a practical framework for implementing the WHO policy recommendations for TB infection control in the clinic setting.

### **Isoniazid preventive therapy (IPT)**

- Isoniazid preventive therapy, or IPT, refers to the use of isoniazid to treat patients who are infected with TB but do not have active disease, a condition known as latent TB infection.
- The WHO clearly recommends that a course of IPT should be provided to all HIV-infected clients who are not currently on treatment for TB and who have a negative symptom screen.
- The 2011 WHO guideline also recommends a 6 month course of isoniazid for all HIV-infected children, adolescents, and adults who successfully complete treatment for TB. In addition, children under 5 years of age (including infants less than 1 year old), who are household contacts of a person with TB and have no evidence of TB disease themselves, should receive 6 months of isoniazid, regardless of their HIV status.

- Do not delay initiation of ARV therapy in favour of IPT. ARV therapy effectively decreases long-term TB risk.
- A positive tuberculin skin test is not required to qualify for IPT in high TB burden countries. TST testing is logistically difficult to accomplish as it requires a return visit 48 to 72 hours following placement of the test and a skilled health care worker both to administer and interpret the test. Sites that have required a positive TST prior to initiating IPT have seen large numbers of potential beneficiaries of IPT being lost to follow-up prior to its being prescribed. However, when it is feasible to perform the test without the risk of losing the patient to follow-up (as in hospitalized patients), it can be used to identify those most likely to benefit from IPT.
- IPT is safe for most people. There is a small risk of hepatitis, which is greater in people who drink a lot of alcohol or have a history of liver disease. The risk is also greater in women during pregnancy and in the three months after delivery. This form of hepatitis can be life threatening in people who get symptoms of hepatitis if they continue to take the drug.
- IPT may worsen peripheral neuropathy. Clients should be told about this, and asked to report any increase in nerve pain in the limbs immediately, especially if they are also taking ART that includes stavudine (d4T), which also causes neuropathy.

**The following clients are eligible for IPT:**

- All HIV positive people with no symptoms or signs suggestive of active TB are eligible for IPT.
- Pregnancy is not a contraindication to IPT.

**The following clients are NOT eligible for IPT:**

- Any client with signs or symptoms suggestive of active TB. In order to avoid the risk of giving isoniazid to people with active TB, the most simple rule is: only give it to well patients. If they have cough, fever or recent weight loss, watch for the development of active TB. If the client might have TB but you can't be sure, wait and investigate.
- Clients with active liver disease or active alcohol abuse should not be offered IPT because of potential hepatotoxicity of the drug used for preventive therapy.
- Clients who have had active TB in the past 2 years should not be considered.
- Clients who were treated for TB more than 2 years ago may be considered because they may have already been re-infected with TB.
- Clients on ARV therapy should not be offered TB preventive therapy, as there is currently no evidence of added benefit.

**Recommended dosage for IPT, per 2011 WHO guidelines:**

- The isoniazid dose for adults is 300 mg per day, while the pediatric dose is 10 mg/kg/day. Children should also receive pyridoxine (vitamin B6) 25 mg per day.

- No specific recommendation was made by WHO regarding pyridoxine supplementation in adults and adolescents who receive isoniazid, but because peripheral neuropathy is associated with both isoniazid and nucleoside reverse transcriptase inhibitors, pyridoxine (25-50 mg) is often prescribed with the hope that it will reduce the risk of peripheral neuropathy.

## **Treatment of TB**

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National guidelines on the treatment of active TB provide additional guidance on screening, treatment, and monitoring of clients with TB. Nurses should follow any national guidelines for treating patients who are infected with both TB and HIV.

### **Treatment strategies**

To ensure thorough treatment, it is often recommended that the client takes his or her pills in the presence of someone who can supervise the therapy. This approach is called Directly Observed Treatment Strategy (DOTS). The essential features of DOTS include:

- Government commitment to sustained TB control activities
- Case detection by sputum smear microscopy among symptomatic clients self-reporting to health services
- Directly observed, standardized treatment regimen of 6-8 months
- Efficient information systems for monitoring and reporting treatment outcomes
- A regular, uninterrupted supply of all essential anti-TB drugs

## **HIV/TB Co-Infection**

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The WHO recommended treatment of TB disease in HIV-infected adults is a 6-month regimen consisting of:

- An initial phase of isoniazid (INH), rifamycin, pyrazinamide, and ethambutol for the first 2 months.
- A continuation phase of INH and rifamycin for the last 4 months.
- Clients with advanced HIV (CD4 counts < 100) should be treated with daily or 3-times-weekly therapy in both the initial and the continuation phases. Twice weekly

### **TB and Drug Resistance**

- When a strain of TB bacteria is resistant to two or more 'first-line' antibiotic drugs it is called multi-drug resistant TB or MDR-TB.
- When it is resistant to three or more 'second-line' antibiotics as well, it is classed as extreme drug resistant TB, or XDR-TB.
- Drug resistance usually arises when TB patients do not or cannot take their medicine as prescribed, and drug-resistant mutations of the bacteria are allowed to replicate.
- People can also catch MDR and XDR-TB from others.



therapy may be considered in clients with CD4 counts  $\geq 100$ . Once-weekly INH/rifampentine in the continuation phase should not be used in any HIV-infected patient.

- 6 months should be considered the minimum duration of treatment for adults with HIV, even for clients with culture-negative TB. Prolonging treatment to 9 months (extend continuation phase to 7 months) for HIV-infected patients with delayed response to therapy (e.g., culture positive after 2 months of treatment) should be strongly considered.
- Clients exposed to an index case with poor response to TB treatment or known multidrug-resistant (MDR) TB should be discussed with the expert MDR centre in the country, if available.
- ARV regimens for TB clients are modified as necessary or, when possible, delayed until the client has been stabilised on TB treatment before initiating ARV therapy.

**There are many challenges to the management of TB in people living with HIV:**

- Adherence to two long-term drug regimens
- Management of side effects of HIV and TB drugs
- Drug interactions between some TB and ARV drugs
- Follow-up and cost of long-term regimens

**TB and ART**

- Start ART in all HIV-infected individuals with active TB, irrespective of the CD4 cell count.
- Start TB treatment first, followed by ART as soon as possible afterwards (and within the first 8 weeks).
- Use EFV as the preferred NNRTI in clients starting ART while on TB treatment. For those HIV/TB co-infected individuals who are unable to tolerate EFV, an NVP-based regimen or a triple NNRTI (AZT + 3TC + ABC or AZT + 3TC + TDF) are alternative options.

**Drug Interactions**

- A major concern in treating TB in HIV-infected persons is the interaction of rifampin with certain ARVs (some protease inhibitors [PIs] and NRTIs).
- Rifabutin, which has fewer problematic drug interactions, may be used as an alternative to rifampin.
- If a client already is receiving ART when TB is diagnosed, these medications should not be discontinued.
- If possible, anti-TB medications that have fewer interactions with antiretroviral medications should be used (e.g., substituting rifabutin for rifampicin).

**Immune Reconstitution Inflammatory Syndrome**

In TB infected clients who are co-infected with HIV, clinical deterioration due to immune reconstitution commonly occurs after initiation of ART. This

is especially more likely in those clients who begin anti-TB and ART when they are severely immunocompromised and who have a rapid improvement in their CD4 counts. TB treatment failure (potentially owing to an inappropriate treatment regimen, inadequate adherence, or drug resistance) must be ruled out, and the possibility of drug toxicity should be considered. In all cases of IRIS, anti-TB therapy should be continued.

### **Side Effects**

Side effects of TB drugs are not common but can be serious when they do occur. The side effects listed below are minor problems. If you have any of these side effects, the client can continue taking their medicine:

- Rifampin can turn urine, saliva, or tears orange.
- Rifampin can make you more sensitive to the sun.
- Rifampin also makes birth control pills and implants less effective. Women who take rifampin should use another form of birth control.

Nurses should advise clients to see medical attention immediately if they experience any of the following:

- Nausea or vomiting
- Loss of appetite
- A yellow colour to their skin (jaundice)
- A fever that lasts 3 or more days and has no obvious cause
- Abdominal pain
- Dizziness
- Skin rash
- Blurred or changed vision

## Session 7.2

## Teaching, Mentoring, and Skills Transfer

### Session Objective

After completing this session, participants will be able to:

- Apply their knowledge of care and treatment of co-infected clients to specific case studies.

### Exercise 1: TB and HIV: Case studies, with large group discussion and role play

<b>Purpose</b>	<ul style="list-style-type: none"><li>• To review key components of the clinical management of co-infected clients, by applying participants' knowledge to specific clinical challenges in the context of case studies.</li></ul>
<b>Instruction</b>	<b>Case Studies and Large Group Discussion</b> <ol style="list-style-type: none"><li>1. Participants should review the case studies in their Participant Manuals.</li><li>2. A participant will be invited to read the 1<sup>st</sup> case study and its associated questions.</li><li>3. The large group will be invited to answer and comment on potential responses to the questions.</li><li>4. Participants should continue with discussion of the remaining case studies.</li></ol>

### Exercise 1: TB and HIV: Case studies, with large group discussion and role play

#### Case Study 1:

T\_\_\_'s father, M\_\_\_, is 55 years old, HIV-infected male and has been taking ART for 5 months. He comes to see his physician because he is feeling fatigued, is unable to sleep, has lost his appetite, and had been coughing for several weeks. He has a history of some psychiatric illness; he had not held a steady job for years. His current girlfriend has advanced HIV and he appears distressed. His CD4 count is 250.

- *How you would proceed with M\_\_\_? What are your next steps?*
- *What are some potential challenges in terms of his diagnosis and care?*
- *What referrals or linkages to care would you provide to M\_\_\_?*

#### Case Study 2:

M\_\_\_ has now been diagnosed with active pulmonary TB.

- *How do you proceed? What do you have to consider in terms of M\_\_\_'s HIV care and treatment?*
- *How would you implement active case finding in this situation?*
- *What kind of infection control practices should be in place to reduce the risk of TB transmission to other clients?*

**Case Study 3:**

M's girlfriend, L\_\_\_, arrives at the clinic, as she was identified as the primary contact of M\_\_\_. She denies any prior exposure to TB. She denies any symptoms of cough, weight loss, fatigue, night sweats, or fever. She is 5'3" and weighed 86 pounds. She reported she weighed about 100 pounds last time she was checked. Her CD4 count is 250.

- *How you would proceed? What are your next steps?*

## Session 7.3 Additional Learning Activities and Resources

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### Session Objective

**After completing this session, participants will be able to:**

- Describe independent and supplemental learning activities for the module.

### Independent Learning Activities

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Ask participants to work in small groups and choose one of the following learning activities:

- The need for collaboration between TB and HIV services is recognised internationally, but clients with both HIV and TB often have to navigate two separate health care programmes, which can considerably increase the time and transport costs associated with receiving care. Ask participants to imagine that, for this assignment, that **THEY** are the director at a site that is establishing a new integrated TB/HIV clinic. Ask participants to develop a plan addressing the following question:
  - *What are the advantages of HIV/TB integration?*
  - *What do you think will be needed to set up YOUR new integrated clinic with collaborative HIV/TB activities?*
  - *What are your strategies for coordinating TB and HIV medical care and services?*
- Explore the individual, social and system-related factors that constitute the greatest barriers to TB treatment in clients in your setting. Answer the following questions:
  - *What influences a person with TB to be non-adherent to treatment?*
  - *Are these barriers related to the individual's knowledge, attitudes, practices, or a combination of these? Are the obstacles personal, societal or related to the healthcare system?*
  - *Provide examples of how some of the barriers related to the healthcare system can be overcome.*
- Facilitate a lunchtime training session with nurses and other members of the multidisciplinary care team to discuss infection control measures and how to create improvements in the current system. Summarise your conclusions in a brief paper.

## Session 7.4 Action Planning

### Session Objective

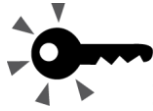
After completing this session, participants will be able to:

- Develop a site-specific action plan to overcome barriers to implementing “Three I’s” at their clinics.

### Exercise 2: The “Three I’s”: Small group work and large group discussion

<b>Purpose</b>	<ul style="list-style-type: none"> <li>• Develop a site-specific action plan to overcome barriers to implementing “Three I’s” at their clinics</li> </ul>
<b>Instruction</b>	<p><b>Part 1: Small Group Work</b></p> <ol style="list-style-type: none"> <li>1. The trainer will begin the exercise by breaking participants into 4 small groups. Participants from the same clinic should work together.</li> <li>2. Participants should refer to <i>Appendix 7D: Action Plan Worksheet</i> during this exercise.</li> <li>3. Each group should answer the following questions:             <ul style="list-style-type: none"> <li>• <i>What are the barriers to active case finding in your clinic? How can this be improved?</i></li> <li>• <i>Where are the risks for TB transmission in your clinical setting? How can infection control systems be improved in your clinic?</i></li> <li>• <i>What are the barriers to implementing IPT in your clinic settings? If it is already implemented, how can you improve the system to ensure ALL eligible clients receive IPT?</i></li> </ul> </li> <li>4. Groups should think of a solution that nurse mentors and educators might be able to implement, in response to each of the questions above.</li> <li>5. Participants should remember that good solutions are “SMART,” or:             <ul style="list-style-type: none"> <li>• <b>Specific:</b> It addresses the matter specifically</li> <li>• <b>Measurable:</b> It can be measured to determine whether it has been achieved.</li> <li>• <b>Achievable:</b> It is within the means and capacity of your group.</li> <li>• <b>Realistic:</b> It is practical and can be accomplished within a reasonable time frame.</li> <li>• <b>Time-bound:</b> The time period for reaching it is clearly specified.</li> </ul> </li> <li>6. Groups will be asked to list 1-3 specific strategies, activities, or “next steps” to achieve each solution.</li> <li>7. For each activity, groups should answer the following questions:             <ul style="list-style-type: none"> <li>• <i>Who is responsible for this activity?</i></li> </ul> </li> </ol>

	<ul style="list-style-type: none"><li>• <i>When will you be able to implement this activity?</i></li><li>• <i>What kind of support or resources (including funds) do you need in order to achieve this activity?</i></li><li>• <i>Any other comments to note about this activity or strategy?</i></li></ul> <p>8. Groups should use <i>Appendix 7D: Action Plan Worksheet</i> to record their plans.</p> <p><b>Part 2: Large Group Discussion</b></p> <p>9. Each group has 5 minutes for presenting their plans to the larger group.</p> <p>10. After each group presents, other participants will be invited to share other solutions that were not listed.</p>
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## **Module 7: Key Points**

- The WHO guidelines recommend that adults and adolescents who report any one of the symptoms of current cough, fever, weight loss, or night sweats be evaluated further for TB and other diseases.
- If a client has symptoms suggestive of TB, investigate as per national guidelines.
- It is very important to investigate clients for TB before starting ARV therapy and to routinely screen clients on ARV therapy.
- In countries with high TB and HIV burdens, the World Health Organization recommends the “Three I’s” strategy for controlling these dual diseases: intensified TB case finding, isoniazid preventive therapy (IPT) and infection control for TB.
- Main features of intense case finding include: asking a series of symptom screening questions at every visit (current cough, fever, night sweats, or weight loss); conducting an appropriate diagnostic evaluation for anyone with a positive symptom screen; and performing TB screening for household contacts of all index patients.
- TB infection control refers to the development and implementation of basic infection control practices in facilities and communities where individuals are at risk of transmitting or contracting TB.
- Isoniazid preventive therapy (IPT) means taking a course of isoniazid treatment in order to stop the development of TB. IPT can prevent TB in people with HIV regardless of CD4 count or antiretroviral treatment.
- The WHO clearly recommends that a course of IPT should be provided to all HIV-infected clients who are not currently on treatment for TB and who have a negative symptom screen.
- A major concern in treating TB in HIV-infected persons is the interaction of common TB medications, such as rifampin, with certain antiretroviral agents (some protease inhibitors [PIs] and nonnucleoside reverse transcriptase inhibitors [NRTIs]). If possible, anti-TB medications that have fewer interactions with antiretroviral medications should be used (e.g., substituting rifabutin for rifampicin).
- National guidelines on the treatment of active TB provide additional guidance on screening, treatment, and monitoring of clients with TB.



## Appendix 7A: TB Screening Questionnaire for Collaborative TB/HIV Activities

Client's name: ..... Client Number: ..... Date of birth: ..... Sex:  Male  Female

Physical Address: ..... Contact telephone: .....

Date	Y		N		Y		N		Y		N		Y		N	
	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N
Tick appropriate response																
Current Cough?																
Fevers?																
Weight Loss?																
Night sweats?																

If 'No' to all questions: Do not initiate TB investigations and repeat screening at the subsequent visit. If 'YES' to one or more questions, complete the respective column in the table below:

Date															
Do sputum smear for AFB and enter results (pos / neg) <sup>1</sup>															
If sputum negative, do chest X-ray and enter result (suggestive or not suggestive)															
Outcome of assessment (TB or No TB)															

Source: Borrowed from ITECH. 2000. National training on TB/HIV for healthcare workers, TB Screening Questionnaire (adapted from: Tanzania MOHSW TB Screening Questionnaire)

<sup>1</sup> Adapt according to national guidelines

## **Appendix 7B: TB Infection Control Checklist**

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Date: \_\_\_\_\_

Name of Clinic evaluated: \_\_\_\_\_

### Instructions:

Please indicate with a tick (✓) if the following was achieved/correctly implemented Put a cross (x) if the aspect was not implemented or incorrect Put a dash (-) if the aspect was not checked by you or not applicable

Chronic cough screening implemented on arrival		
TB suspects fast-tracked to the front of the queue		
TB suspects directed to a separate, well ventilated waiting area		
Sputum collection done in a safe way		
All windows and doors in the HIV clinic were open on arrival and still open on departure		
All windows and doors in other departments were open on arrival and still open on departure		
Good natural ventilation in offices and/or passages		
Offices rearranged to allow safe ventilation for healthcare workers and clients		
All fans are clean and in working condition		
Tissue paper available for clients		
Tissue paper bins available and emptied regularly		
N95 masks (and instructions or training) available for all healthcare workers		
TB C&T registers current		
VCT registers current		
TB screening done at every visit		
TB suspect registers up to date		
Sputum specimens shipping lists up to date		
Sputum results filed away in patient's file		

## Appendix 7C: Mode and Dosage of Anti-TB Drugs

Essential Anti-TB drugs	Mode of action	Recommended dose in mg/kg	
		Daily	3/weekly
Rifampicin (R)	Bactericidal, kill metabolic active bacilli	10	10
Isoniazid (H)	Bactericidal, kills metabolic active bacilli	5	10
Pyrazinamide (Z)	Bactericidal, kills metabolic active bacilli	25	25
Ethambutol (E)	Bacteriostatic	15	30
Streptomycin (S)	Bactericidal, kill metabolic active bacilli	15	15
Thiacetazone (T)	Bacteriostatic	3	N/A

Source: Borrowed from ITECH. 2099. *National training on TB/HIV for healthcare workers*, Handout 6.2: Mode of Action, Potency and Recommended Dose of TB Drugs  
Tanzania Ministry of Health and Social Welfare.

## Appendix 7D: Action Plan Worksheet

What is the problem?	What is your solution to this problem?	What are your strategies, activities, or "next steps" to achieve the solution?	What is your timeframe?	What resources or support are needed?	Comments
		1.			
		2.			
		3.			
		1.			
		2.			
		3.			
		1.			
		2.			
		3.			

## References and Resources

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<sup>1</sup> ITECH. 2009. *National training on TB/HIV for healthcare workers*, Tanzania Ministry of Health and Social Welfare.

# **Module 8      Sexual and Reproductive Health (SRH) Services for People Living with HIV**

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**Session 8.1: Review of Key Competencies and Key Updates for Sexual and Reproductive Health Services for PLHIV**

**Session 8.2: Teaching, Mentoring, and Skills Transfer**

**Session 8.3: Additional Learning Activities**

**Session 8.4: Action Planning**

## **Learning Objectives**

**After completing this module, participants will be able to:**

- Reflect on their own attitudes, values, and beliefs on client sexuality and discuss how these may affect their work with clients.
- Define key terms related to sex, sexuality, sexual orientation, and sexual identity.
- Define safer sex and discuss how to empower clients to practise safer sex.
- Support clients to practise safer sex.
- Explain the importance of and provide STI screening and treatment for clients.
- Discuss childbearing choices and safe childbearing with female clients.
- Describe independent and supplemental learning activities for the module.
- Develop a site-specific action plan to improve accessibility of SRH services for hard-to-reach populations.

## Session 8.1      Review of Key Competencies and Key Updates for Sexual and Reproductive Health Services for PLHIV

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### Session Objective

**After completing this session, participants will be able to:**

- Reflect on their own attitudes, values, and beliefs on client sexuality and discuss how these may affect their work with clients.
- Define key terms related to sex, sexuality, sexual orientation, and sexual identity.
- Define safer sex and discuss how to empower clients to practise safer sex.
- Support clients to practise safer sex.
- Explain the importance of and provide STI screening and treatment for clients.
- Discuss childbearing choices and safe childbearing with female clients.

### Exercise 1: SRH Values Clarification: Large group exercise

<b>Purpose</b>	<ul style="list-style-type: none"> <li>• To help participants begin to think about their values, attitudes, and prejudices related to client sexuality and SRH, and how these might affect their work with HIV-infected clients</li> </ul>
<b>Instruction</b>	<ol style="list-style-type: none"> <li>1. The trainer will begin the exercise by posting papers that say “AGREE” and “DISAGREE” on opposite sides of the training room.</li> <li>2. Participants will be invited to stand up and move to the open space in the room where the “AGREE” and “DISAGREE” signs are posted.</li> <li>3. The trainer will read a statement out loud and then participants should move to the “AGREE” or the “DISAGREE” sign, based on their opinions. If participants are not sure whether they agree or disagree with the statement, they can stand somewhere between the two signs.</li> <li>4. Participants will be invited to tell the group why they “AGREE” or “DISAGREE” with the statement. =</li> </ol>

### Exercise 1: SRH Values Clarification: Large group exercise

#### Statements for Values Clarification

1. If a male client tells you he is sometimes attracted to other men, it is your job to discourage any homosexual behaviour.
2. HIV infection can have an affect on a person’s sexuality.
3. We should encourage clients living with HIV to remain abstinent for as

long as possible.

4. It is wrong for a person living with HIV not to disclose his status to his sexual partner.
5. There are safe ways for people living with HIV to be sexually active.
6. Children born to HIV-infected mothers are victims.
7. All people, including PLHIV, have a right to a pleasurable sexual experience.
8. If an HIV-positive woman has already had four children, she should be sterilized.

## **Comprehensive Sexual and Reproductive Health Services**

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The United Nations Population Fund (UNFPA) has identified the following core areas of a comprehensive SRH package<sup>1</sup>:

- Family planning (FP)/birth spacing services
- Antenatal care, skilled attendance at delivery, and postnatal care
- Management of obstetrical and neonatal complications and emergencies
- Prevention of abortion, management of abortion complications, and provision of post abortion care
- Prevention and treatment of reproductive tract infections (RTIs) and sexually transmitted infections (STIs)
- Early diagnosis and treatment for breast cancer and reproductive tract cancers (men and women)
- Promotion, education, and support for exclusive breastfeeding
- Prevention and appropriate treatment of subfertility and infertility
- Active discouragement of harmful practices, such as female genital cutting/mutilation
- Prevention and management of gender-based violence.

## **Sex: Key Terms<sup>2</sup>**

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### **Sex (as a verb):**

Sex can be a normal part of life for many older clients and adults. Sex means different things to different people, including:

- Vaginal sex (when the penis or fingers go into the vagina)
- Anal sex (when the penis or fingers go into the anus)
- Oral sex (when a person kisses or licks their partner's penis, vagina, or anus)
- Inserting fingers or objects into the vagina or anus
- Masturbation (alone or with a partner)
- Having sex with men, women, or both men and women.

Sex as a verb is also referred to as “intercourse” or “sexual intercourse”.



## Unsafe sex

- HIV is mainly spread through unsafe sex. Unsafe sex is any kind of sex that puts a person, or his or her sexual partners, at risk of getting a sexually transmitted infection, including HIV, or unwanted pregnancy.
- It is very important for nurses to be comfortable talking about sex and reproduction with all of their clients. Frank, factual discussions about sex and sexuality can provide clients with the information they need to protect themselves and their partners from sexually transmitted infection and unplanned pregnancy.

## Sexuality: Key Terms

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### Sexuality:

- Is more than sex and sexual feelings.
- Includes all the feelings, thoughts, and behaviours of being a girl or boy, including being attractive, being in love, and being in relationships that include sexual intimacy and physical sexual activity.
- Exists throughout a person's life and is a component of the total expression of who we are as human beings, male or female.
- Is constantly evolving as we grow and develop.
- Is a part of us from birth to death.

The following are some aspects of sexuality. Each of these aspects is connected to each other and makes a person who he or she is.

- **Body image:** How we look and feel about ourselves, and how we appear to others
- **Gender roles:** The way we express being either male or female, and the expectations people have for us based on our sex
- **Relationships:** The ways we interact with others and express our feelings for others
- **Intimacy:** Sharing thoughts or feelings in a close relationship, with or without physical closeness
- **Love:** Feelings of affection and how we express those feelings for others
- **Sexual arousal:** The different things that excite us sexually.
- **Social roles:** How we contribute to and fit into society
- **Genitals:** The parts of our bodies that define our sex (male or female). They are part of sexual pleasure and reproduction
- **Ways we can express sexuality:** dancing, talking with other sex, wearing attractive clothes, sexual dreams, feeling sexual near others, masturbation, daydreams, and others

### Remember:

- In many places, “sex” is often thought to mean only penis-vagina sex between a man and a woman. But sexual behaviours include much more than penis-vagina sex.

- If nurses and midwives do not talk about sex and sexual behaviours with clients, they may not get the information, skills, and supplies they need to protect themselves and their partners and reduce risks of HIV, STIs, sexual violence, discrimination, and unplanned pregnancy.
- While we all hold our own opinions about different sexual behaviours, as nurses, we cannot project our own values on clients. Clients should always be made to feel comfortable talking about their sexual concerns, questions, and behaviours without risk of judgement.

## **Sexual Orientation and Identity: Key Terms**

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- Nurses need to stress that homosexual, bisexual, and transsexual/transgendered behaviour is **NORMAL** (regardless of their personal views).
- Nurses do not have to be an expert on sexual orientation. The most important thing is that they be willing to listen to clients in a non-judgemental way, and to provide referrals if necessary.
- **Sex (as a noun):** Refers to the physiological attributes that identify a person as male or female (genital organs, predominant hormones, ability to produce sperm or ova, ability to give birth, etc.).
- **Gender:** Refers to widely shared ideas and norms about women and men, including common beliefs about what characteristics and behaviour are “feminine” or “masculine.” Gender reflects and influences the different roles, the social status, as well as the economic and political power of women and men in society.
- **Heterosexuality:** The sexual orientation in which a person is physically attracted to people of the opposite sex.
- **Homosexuality:** The sexual orientation in which a person is physically attracted to people of the same sex.
- **Bisexuality:** The sexual orientation in which a person is physically attracted to members of both sexes.
- **Transvestism:** When a person dresses and acts like a person of the opposite gender.
- **Transsexual:** A person who desires to change, or has changed, his or her biological sex because his or her body does not correspond to his or her gender identity.
- **Transgendered:** A person who lives as the gender opposite to his or her anatomical sex (for example, a male living as a female but retaining his penis and sexual functioning).

## **What Do We Mean by “Safer Sex?”**

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**Safer sex** includes the range of ways that people can protect themselves and their partner(s) from HIV (or HIV “re-infection”), STIs, and unintended pregnancy.

- Safer sex involves choosing sexual practices and protection methods that prevent body fluids from passing from one person to another.
- Safer sex reduces these risks without reducing intimacy or pleasure.

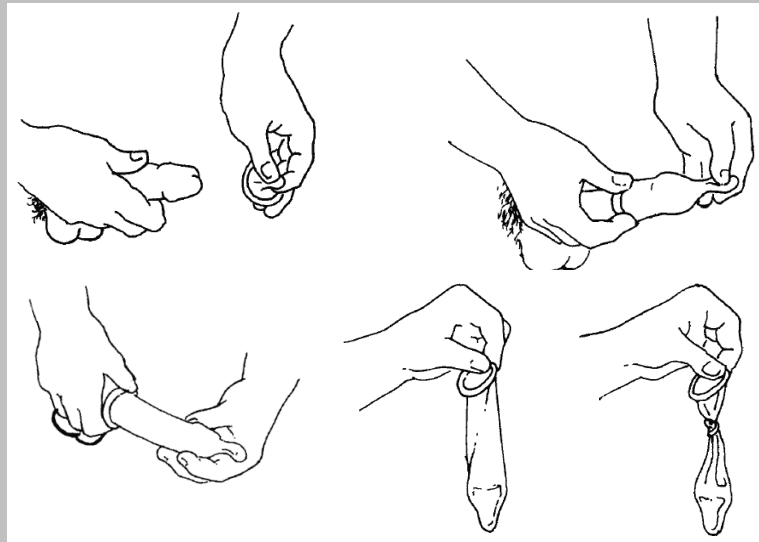
## Dual protection:

Dual protection means preventing STIs, HIV, and unwanted pregnancy at the same time. Various strategies offer dual protection, including abstinence and the “no risk” and “low risk” activities listed above. Other strategies include:

- Being in a monogamous relationship in which both partners are free of STIs and at least one partner is using effective contraception
- Using male or female condoms
- Using male or female condoms to protect against STIs and a second method to protect against unplanned pregnancy (often a hormonal method)

### How to use a male condom

These are the basic steps you should know for using and demonstrating how to use a male condom. If penis models are not available, you can use a bottle, banana, or corn. Only condoms made out of latex protect against HIV.



#### Steps to use a male condom:

- Look at the condom package and check the expiry date to make sure it is still good and that the package is not damaged.
- Open the packet on one side and take the condom out. Do not use your teeth to open the package.
- Pinch the tip of the condom to keep a little space at the tip. This will hold the semen and prevent the condom from breaking.
- Hold the condom so that the tip is facing up and it can be rolled down the penis. (Make sure it is not inside out!)
- Put it on the tip of an erect (hard) penis (only use condoms on an erect penis) and unroll it down to the bottom of the penis.
- After ejaculation (coming), the rim of the condom should be held while the man removes his penis without spilling the semen. The penis must be removed while it is still hard to make sure the condom does not fall off.
- Remove the condom and tie it in a knot to avoid spilling. Throw it away in a latrine or bury it. Do not put it in a flush toilet.

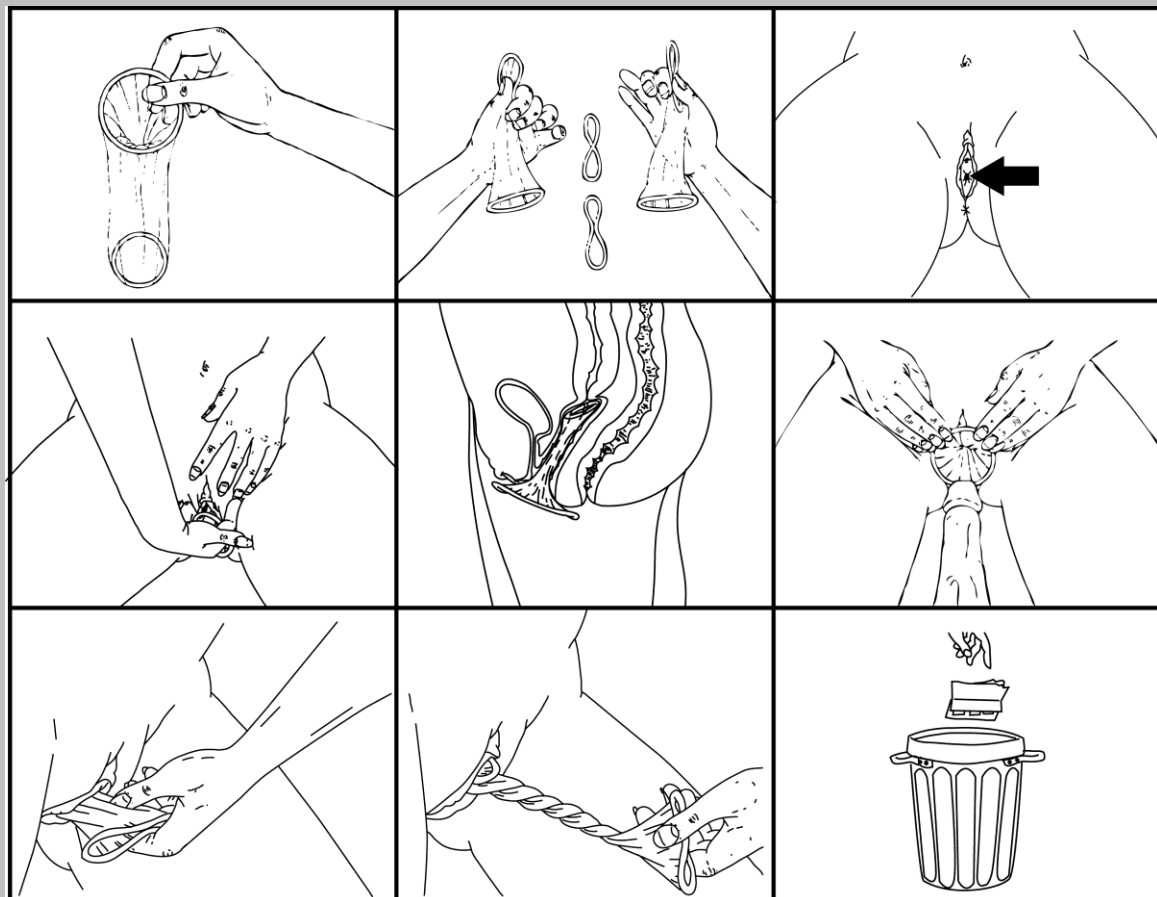
**Also, it is important to:**

- Use a condom every time you have sex — oral sex, anal sex, or vaginal. Use a new condom every time! Never reuse a condom!
- Use only lubricants made out of water, not oils.
- Store condoms in a cool, dry place, out of the sun. Do not keep them in a wallet.
- Do not use condoms that seem to be sticky, a strange colour or damaged in any way. Throw them away.

Adapted from: Burns, A., Lovich, R., Maxwell, J., & Shapiro, K. 1997. *Where women have no doctor: A health guide for women*. Berkeley, CA: The Hesperian Foundation.

**How to use a female condom**

Some women like the female condom because it gives them more control over their own bodies and over sex. Some men like it, too, because they do not have to use a male condom. The female condom is becoming more affordable and available. These are the main steps for using a female condom. If no vaginal model is available to demonstrate its use, you can use a box with a round hole cut in it or your hand.



**Steps to use a female condom:**

- Look at the condom package to make sure it is not damaged and check the expiry date to make sure it is still good.
- Open the packet. Do not use your teeth.

- Find the inner ring at the closed end of the condom. The inner ring is not attached to the condom.
- Squeeze the inner ring between the thumb and middle finger.
- Guide the inner ring all the way into the vagina with your fingers. The outer ring stays outside the vagina and covers the lips of the vagina.
- When you have sex, guide the penis through the outer ring so that the penis is inserted into the female condom.
- After the man ejaculates (comes), before the woman stands up, squeeze and twist the outer ring to keep the semen inside the pouch and pull the pouch out.
- Put the used condom in a latrine or bury it. Do not put it in a flush toilet.

Adapted from: Burns, A., Lovich, R., Maxwell, J., & Shapiro, K. 1997. *Where women have no doctor: A health guide for women*. Berkeley, CA: The Hesperian Foundation.

### **Exercise 2: Condom Demonstration: Return demonstration and large group discussion**

<b>Purpose</b>	<ul style="list-style-type: none"> <li>• To help participants feel comfortable demonstrating how to put on a male and female condom</li> </ul>
<b>Instruction</b>	<p><b>Large Group Demonstration — male condom</b></p> <ol style="list-style-type: none"> <li>1. Participants will be asked if anyone is willing to demonstrate to the entire group how to put on a male condom, using a penis model (or a substitute for a penis model, such as a banana, cob of corn or bottle).</li> <li>2. After the volunteer demonstrates, the group will be invited to offer their feedback about how they thought the demonstration went, providing corrections if there were any mistakes.</li> </ol> <p><b>Return Demonstration</b></p> <ol style="list-style-type: none"> <li>3. The trainer will then ask participants to get into pairs and take turns demonstrating how to put on a male condom on a penis model, as if they were doing such a demonstration with a client in the clinic.</li> </ol> <p><b>Large Group Demonstration — female condom</b></p> <ol style="list-style-type: none"> <li>4. The trainer will ask someone to demonstrate to the entire group how to insert a female condom into a vagina model. The demonstrator should explain each step.</li> <li>5. After the volunteer demonstrates, the group will be invited to offer their feedback about how they thought the demonstration went, providing corrections if there were any mistakes.</li> </ol> <p><b>Return Demonstration</b></p> <ol style="list-style-type: none"> <li>6. The trainer will then ask participants to form new pairs and take turns demonstrating to each other how to insert the female condom into a vagina model, as if they were doing such a demonstration with a client in the clinic.</li> </ol>

	<p><b>Large Group Discussion</b></p> <p>7. The trainer will reconvene the large group and ask participants how they felt demonstrating how to put on a male condom and how to insert the female condom and why nurses sometimes feel uncomfortable demonstrating condom use to clients.</p>
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## **Reasons Why Clients May Not Practise Safer Sex**

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### **Ignorance:**

- They think they are not vulnerable to HIV, HIV re-infection, pregnancy, or STIs. “It cannot happen to me” or “I do not have sex often enough to get pregnant.”
- They do not have adequate or accurate information about safer sex:
  - The media portrays sexuality unrealistically and usually does not include any mention of protection.
- They have heard misinformation or myths about methods and their side effects.
- They do not know that methods are available or which methods can be used by PLHIV.
- They do not know where, how, or when to get condoms or other contraceptive methods.
- They do not know how to correctly use condoms.
- They are not aware of pleasurable alternatives to risky sex, such as mutual masturbation, etc.

### **Denial:**

- “*Sex just happened.*” (They did not expect to have sex).
- “*I only had sex once with that person.*”
- “*Sex should be spontaneous.*”
- They don’t think they will get pregnant or an STI, or think that there is only a small chance of passing HIV during sex.

### **Lack of access:**

- Access to contraceptive services for clients is limited by law, custom, or clinic/institutional policy.
- Availability and cost may restrict access.
- Irregular supply of methods available.
- Healthcare worker attitudes towards contraception may prevent them from distributing protective methods to clients.

### **Coercion:**

- One of the partners wants to get pregnant.
- One of the partners will not let the other use protection.
- One of the partners forces the other to have sex.
- They have the attitude that condoms ruin sex or are unromantic.
- There is pressure from their family to conceive.

**“What the heck” effect:**

- Clients may feel that because they are already HIV-infected, there is no need to protect themselves. This might be especially true if both sexual partners are HIV-infected.
- Clients may be depressed and have lost hope — thinking “What the heck, I already have HIV so why not take risks?”

**Fear:**

- Fear of rejection by partner.
- Fear of people knowing HIV status if they use condoms or request partner to use condoms.
- Fear of the lack of confidentiality at the place methods can be obtained.
- Fear of side effects.

**Other factors:**

- They lack the skill and expertise to negotiate condom use.
- They stopped using oral contraceptives because of the side effects.
- They believe that the suggestion of protection implies mistrust of one’s partner and his or her faithfulness.
- They desire conception.
- They lack the communication and negotiation skill to discuss protection.
- They think their partner “is taking care of protection.”
- They have not made a firm decision about whether or not they would like to get pregnant.
- They do not know how to dispose of condoms or do not have a place to dispose of them properly and privately.

**Reducing Risk**

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Sexual risk screening includes questions to help the nurse assess if the client is sexually active, and if so, with whom and what risks he or she is taking. Risk reduction counseling focuses on reducing risk of HIV, STIs and unwanted pregnancy by helping the client choose a strategy that is right for him or her.

Nurses can help HIV-infected clients assess their own risk and can use this understanding to reduce their risk through developing and implementing risk reduction plans. Some key points of risk-reduction counselling are as follows:

- Explore the client’s needs, risks, sexual life, social context, and circumstances.
- Assess the client’s knowledge and give information, as needed.
- Assist the client to perceive or determine his or her own pregnancy or HIV and STI risk:
- Ask the client if he or she feels at risk for unintended pregnancy or for HIV and STI transmission, and explore why or why not.

- Ask the client if he or she thinks that his or her partners may be at risk for unintended pregnancy or HIV and STI transmission, and explore the reasons.
- Explain HIV and STI transmission and pregnancy risks (as necessary), relating them to the individual sexual practices of the client and his or her partners.
- Help the client to recognize and acknowledge his or her risks for HIV and STI transmission or unintended pregnancy.

### **Questions for Sexual History**

**The following questions are mostly close-ended, to be asked only after there has been time for more open-ended discussion and the development of rapport:**

To initiate a more detailed discussion of sexual history in relation to potential exposure:

- *Tell me what part sexual activity plays in your life right now? (If necessary, ask “Are you sexually active?”)*
- *Can you describe for me what you think about your risk for HIV infection? Why do you think you may/may not be at risk?*
- *Have you ever had a sexually transmitted infection? (It helps to give examples.) Do you know if any of your sexual partners have developed a sexually transmitted disease or AIDS?*

To elicit more details about the number and sex of partners and the use of condoms:

- *Have you ever had, or do you currently have, sex with men, with women or both?*
- *How many sexual partners have you had? (If possible, determine the number of partners in the patient’s lifetime, during the past year and in the past three months.)*
- *Do you use condoms? If so, how often?*
- *When did you begin using condoms?*
- *If not, what was your reason for not using condoms?*

To identify sexual practices:

- *What form of sex do you usually have with your partner?*
- *Do you have vaginal intercourse?*
- *Do you have anal sex? (This may require additional explanation or description.)*
- *Do you have oral sex? (This may require additional explanation or description.)*

Adolescent clients, in particular, need access to accurate information about HIV and STI transmission to address their concerns about sexuality, dating, future childbearing, disclosure, and transmission risk. In general, younger clients want their healthcare provider(s) to give accurate information and



to sensitively ask them personal questions about HIV-related risk behaviour — without judgement and ensuring confidentiality.

In order for these discussions to be effective, ALL clients must feel that their providers will comfortably and supportively engage in dialogue with them about any topic — no matter how uncomfortable it may be. Young people, in particular, can sense when nurses are out of their element or passing judgement discussing sensitive issues and this perception will likely prevent honest communication about risk behaviours.

## **STI Screening and Treatment**

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### **Screening and physical examination**

At every visit, ask client who are sexually active about STI symptoms. If the answer to any question is 'yes', conduct a physical examination.

Nurses should also provide routine cervical screening on all sexually active women with HIV. Routine cervical screening is especially important as females living with HIV are at greater risk for cervical cancer than HIV-uninfected women.

### **Diagnosis and treatment**

A thorough physical examination is key to diagnosing STIs. Nurses should use information from the physical examination in combination with the client's history to make a **syndromic diagnosis** and manage according to the flow charts in the national STI guidelines.

Treat clients diagnosed with an STI syndrome for all of the possible STIs that could cause that syndrome. In addition:

- Counsel clients to avoid sex while being treated for STIs and to use condoms with every sexual encounter after sexual activity resumes.
- Counsel clients diagnosed with STIs to inform their sexual partner(s) to seek medical care so that they can be evaluated and treated for STIs as well.
- Conduct risk reduction counselling to help clients avoid STIs in the future, including counselling on safer sex and consistent condom use with every sexual encounter.

## **Counselling Clients on Family Planning**

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Many HIV-infected women and girls have questions about whether or not they can safely have children in the future. Nurses should provide education and counselling to clients on the safest times to become pregnant and have children.

- It is safest for a woman to have a baby when she is a physical adult.
- The safest time to get pregnant is when both partners:
  - Have CD4 cell counts over 350
  - Are healthy: they do not have any opportunistic infections (including TB) nor do they have advanced AIDS

- Are taking and adhering to their ART regimens
- It is healthiest for a mother to wait until her child is at least 2 years before getting pregnant again.

It is important for HIV-infected women to know the facts about pregnancy and preventing mother-to-child transmission — BEFORE they become pregnant. These are good topics to discuss in PLHIV support groups and during individual counselling sessions. Clients should always be encouraged to talk with nurses about pregnancy and PMTCT if they are thinking of having children. Nurses should also encourage partners of client to come to the clinic for education and counselling on these topics.

## **Common Contraceptive Issues for Clients**

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- Clients have special needs when choosing a contraceptive method. Social and behavioural issues are important considerations. For example, methods that do not require a daily regimen may be more appropriate for younger client, because of clients' unpredictable sexual activity or the need to conceal intimacy and contraceptive use. In addition, sexually active women who are unmarried have very different needs from those who are married and want to postpone, space, or limit pregnancy.
- Proper education and counselling — both before and at the time a method is selected — can help clients make informed, voluntary decisions.
- At a minimum, all clients should be counselled on correct condom use and clearly instructed that condoms or abstinence are the only ways to prevent HIV infection. Every effort should be made to prevent the cost of services or contraceptive methods from limiting options.

Always follow the national guidelines when providing family planning counselling and support and when prescribing a family planning method. Participants can refer to *Appendix 8A: Survey of Family Planning Methods*, to review special considerations for clients and key points for counselling.

### **Contraceptive Side Effects:**

Some clients may experience side effects from contraceptive methods (i.e. weight gain, spotting, menstrual changes). These side effects can be uncomfortable, annoying, or worrisome to clients. Side effects are the major reason that younger clients stop using contraceptive methods. Therefore it is important that nurses<sup>3</sup>:

- Treat all client complaints with patience and seriousness.
- Offer clients an opportunity to discuss their concerns.
- Reassure the client that side effects are manageable and reversible.
- Help the client differentiate between normal contraceptive side effects versus complications that require a return visit to the clinic.
- Offer clients information and advice on how to prevent and manage side effects.
- Always provide follow-up counselling.

A summary of common contraceptive options for PLHIV is in Table 8.1. A more detailed description of contraceptive options including special considerations for the client and advice on counselling the client about condoms can be found in *Appendix 8B: Survey of Family Planning Methods*.

**Table 8.11: Summary of contraceptive options**

<b>Male and female condoms</b>		
<b>Advantages</b>	<b>Disadvantages</b>	<b>Summary</b>
<ul style="list-style-type: none"> <li>• Provide protection from both pregnancy and STI (including HIV) transmission and acquisition</li> <li>• Highly effective when used consistently and correctly</li> </ul>	<ul style="list-style-type: none"> <li>• Correct and consistent condom use may be difficult to achieve, failure rates can be high</li> <li>• Partner involvement is required, need to negotiate their use</li> <li>• Does not interfere with medications</li> </ul>	<ul style="list-style-type: none"> <li>• Good method for all clients</li> <li>• Requires demonstration on proper use</li> </ul>
<b>Combined oral contraceptive pills (COCs), progestin-only oral contraceptive pills (POPs) — pills taken daily*</b>		
<b>Advantages</b>	<b>Disadvantages</b>	<b>Summary</b>
<ul style="list-style-type: none"> <li>• Highly effective when taken daily on schedule</li> <li>• POPs may be a good choice for clients who cannot tolerate estrogen in COCs or who are breastfeeding</li> <li>• Does not interfere with sex</li> </ul>	<ul style="list-style-type: none"> <li>• Failure rates can be high, especially in younger clients, due to confusion about how to take pill</li> <li>• Side effects can include nausea, weight gain, breast tenderness, headaches, spotting</li> <li>• Cannot be taken by clients on rifampicin</li> <li>• ARVs may adversely affect the efficacy of low-dose COCs and/or increase their side effects</li> </ul>	<ul style="list-style-type: none"> <li>• Women taking ARVs who want to use COCs should be counselled about the importance of taking COCs on time every day, and about consistent condom use</li> <li>• POPs are safe for clients, but they must be taken at exactly the same time everyday (for this reason, may not be suitable for younger clients)</li> </ul>
<b>Injectables — “shot” given every 2–3 months*</b>		
<b>Advantages</b>	<b>Disadvantages</b>	<b>Summary</b>
<ul style="list-style-type: none"> <li>• Highly effective when used correctly</li> <li>• Does not interfere with sex</li> </ul>	<ul style="list-style-type: none"> <li>• Side effects can include spotting at first, then amenorrhea and weight gain</li> </ul>	<ul style="list-style-type: none"> <li>• Can be used by HIV-infected adult and adolescent females without restrictions</li> <li>• Remind client when to return for next injection</li> </ul>
<b>Hormonal implants — small rods inserted under skin, lasts 3–7 years*</b>		
<b>Advantages</b>	<b>Disadvantages</b>	<b>Summary</b>
<ul style="list-style-type: none"> <li>• Highly effective</li> <li>• Can be reversed</li> <li>• Does not interfere with sex</li> </ul>	<ul style="list-style-type: none"> <li>• Effectiveness of implant may be reduced by ARVs</li> <li>• Side effects can include nausea, weight gain, and changes in monthly bleeding.</li> <li>• Usually need to be</li> </ul>	<ul style="list-style-type: none"> <li>• Can be used by HIV-infected adult and adolescent females who do not take ART</li> <li>• Can be used by HIV-infected adolescents and women on ART, but should use condoms as</li> </ul>

	inserted and removed at a family planning clinic	<ul style="list-style-type: none"> <li>a back-up method</li> <li>Provide counselling to prepare client for possibility of irregular bleeding</li> </ul>
<b>Emergency contraceptive pills (ECP) — 2 doses of pills taken within 120 hours after unprotected sex</b>		
<b>Advantages</b>	<b>Disadvantages</b>	<b>Summary</b>
<ul style="list-style-type: none"> <li>Reduces risk of pregnancy after unprotected sex by 75%</li> <li>Safe for all women, including those living with HIV and those taking ART</li> </ul>	<ul style="list-style-type: none"> <li>For emergency use only!</li> <li>Side effects can include nausea, vomiting, cramps, headache, breast tenderness, and changes in the menstrual cycle</li> </ul>	<ul style="list-style-type: none"> <li>Should be widely and easily available</li> <li>Can be used by HIV-infected adult and adolescent females</li> <li>Provide counselling on adopting a regular contraceptive method, as well as on condom use for dual protection</li> </ul>
<b>Intra-uterine devices (IUDs) — device inserted into uterus, lasts up to 12 years*</b>		
<b>Advantages</b>	<b>Disadvantages</b>	<b>Summary</b>
<ul style="list-style-type: none"> <li>Highly effective</li> <li>Does not interfere with sex</li> </ul>	<ul style="list-style-type: none"> <li>Should not be initiated in a woman with AIDS not taking ART</li> <li>Side effects can include heavy bleeding, discharge, cramping and pain during the first months</li> <li>Usually needs to be inserted and removed at a family planning clinic</li> </ul>	<ul style="list-style-type: none"> <li>Appropriate for clients in stable, mutually monogamous relationships</li> <li>Not recommended for HIV-infected women with advanced HIV disease or AIDS, especially if not on ART</li> </ul>
<b>Male and female sterilisation — surgery*</b>		
<b>Advantages</b>	<b>Disadvantages</b>	<b>Summary</b>
<ul style="list-style-type: none"> <li>Safe and effective</li> <li>Free of side effects</li> <li>Does not interfere with sex</li> </ul>	<ul style="list-style-type: none"> <li>Permanent and requires surgery</li> </ul>	<ul style="list-style-type: none"> <li>Permanent methods are not recommended for younger clients</li> </ul>
<b>Lactational amenorrhea method (LAM)*</b>		
<b>Advantages</b>	<b>Disadvantages</b>	<b>Summary</b>
<ul style="list-style-type: none"> <li>Temporary, natural contraceptive option for women who are less than 6 months postpartum, exclusively breastfeeding, and whose periods have not yet returned</li> </ul>	<ul style="list-style-type: none"> <li>Only applies to women who are breastfeeding</li> </ul>	<ul style="list-style-type: none"> <li>Appropriate only for clients who have given birth within the past 6 months</li> </ul>
<b>Fertility awareness methods*</b>		
<b>Advantages</b>	<b>Disadvantages</b>	<b>Summary</b>
<ul style="list-style-type: none"> <li>No health risks or side effects</li> </ul>	<ul style="list-style-type: none"> <li>Requires a woman to identify her fertile days, which takes time and effort</li> <li>Requires considerable commitment, calculation and self-control, both by</li> </ul>	<ul style="list-style-type: none"> <li>A very difficult method for most clients to implement correctly and consistently</li> <li>Not reliable for pregnancy prevention</li> </ul>

	the woman and her partner	
* Nurses should recommend and provide condoms for dual protection.		

Adapted from: Senderowitz, J., Solter, C., & Hainsworth, G. 2002, revised 2004.  
*Comprehensive Reproductive Health and Family Planning Training Curriculum: Module 16: Reproductive Health Services for Clients, Unit 7.* Watertown, MA: Pathfinder International.

## Session 8.2 Teaching, Coaching, and Skills Transfer

### Session Objective

After completing this session, participants will be able to:

- Reflect on their own attitudes, values, and beliefs on client sexuality and discuss how these may affect their work with clients.

### Exercise 3: Providing SRH Services to PLHIV: Case studies, role play, and large group discussion

<b>Purpose</b>	<ul style="list-style-type: none"> <li>• Participants have an opportunity to discuss and role play strategies to provide PLHIV with a range of sexual and reproductive health information, counselling, and services</li> </ul>
<b>Instruction</b>	<p><b>Case Studies, Role Play, and Large Group Discussion</b></p> <ol style="list-style-type: none"> <li>1. The trainer will begin the exercise by asking 2 participants to volunteer to role play the 1<sup>st</sup> case study in front of the large group. One participant will be the “nurse” and the other the “client.” The “nurse” and “client” have about 5–8 minutes to conduct their role play.</li> <li>2. Upon completion of the role play, the trainer will facilitate a discussion by asking questions.</li> <li>3. A participant will be invited to read the 2<sup>nd</sup> case study. The large group will discuss the nurse’s potential responses and “next steps” with the client.</li> <li>4. Participants will continue to discuss the 3<sup>rd</sup> and 4<sup>th</sup> studies in a large group format.</li> <li>5. The trainer will close the exercise by asking some discussion questions about SRH services and mentoring SRH skills.</li> </ol>

### Exercise 3: Providing SRH Services to PLHIV: Case studies, role play, and large group discussion

#### Case Study 1:

T\_\_ returns to the clinic for a follow-up appointment. During the visit, she discloses that she wants to have another child; however, recently the leader of her local HIV support group told her friend, “*HIV-positive women who have children are no better than murderers*”. Her current partner is HIV-negative and is very worried about having a child with her. How do you proceed?

#### Case Study 2:

When T\_\_ returns to the clinic for a follow-up exam, you overhear your mentee talking to her. Your mentee advises T\_\_ not to have any more children. When T\_\_ admits she is still not taking her birth control, the

mentee shouts at T\_\_\_, "*Why did you not listen to our advice?*" How do you address this with your mentee during your supervision session?

**Case Study 3:**

T\_\_\_ returns to clinic because of the recurrence of painful sores on the labia minor and painful intercourse. She had similar lesions last year, but this year there are more sores and the pain is worse. In addition, she has experienced a whitish vaginal discharge that aggravates the sores. The clinic on this particular day has a long line of patients waiting to be seen. The mentee that you are supervising prescribes a vaginal yeast cream for T\_\_\_ and tells her to come back to the clinic in 2 weeks for follow up. How would you intervene in this particular scenario?

**Case Study 4:**

T\_\_\_ 's brother M\_\_\_ returns to the clinic for a check up and medication refill. He was diagnosed with HIV 6 months ago and has been on ART for 2 months. You hear from some other nurses that M\_\_\_ has sex with other men for money. When you offer him some condoms at the end of the appointment, he says that he does not need them. How do you proceed?

## Session 8.3      Additional Learning Activities and Resources

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### Session Objective

**After completing this session, participants will be able to:**

- Describe independent and supplemental learning activities for the module.

### Independent Learning Activities

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Ask participants to work in small groups and choose 1 of the following learning activities:

- Develop a set of guidelines for health workers at your health facility on SRH counselling for HIV-infected clients.
- Gather and review a national HIV/AIDS policy brief or document on legal and ethical issues (if available). Ask the following questions:
  - *What rights need to be upheld in order for PLHIV to fulfil their sexual and reproductive rights? And vice versa—how does upholding sexual and reproductive rights help them realize other rights?*
  - *What is the nurse's role in helping PLHIV protect and fulfil their sexual and reproductive rights?*
- Facilitate a lunchtime discussion with nurses and other members of the multidisciplinary team about SRH problems, causes, and consequences of the SRH vulnerability of HIV-infected women and adolescent girls. Use the following questions to guide the discussion and summarise your findings in a brief paper:
  - *How does gender inequality contribute to these problems?*
  - *Do the causes and consequences differ at various life stages?*
  - *Which of the causes do you think it is possible for us to address in our work?*
  - *How, if at all, do you think addressing the “causes” will affect the “consequences”?*



## Session 8.4      Action Planning

### Session Objective

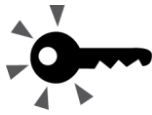
**After completing this session, participants will be able to:**

- Develop a site-specific action plan to improve accessibility of SRH services for hard-to-reach populations.

### Exercise 4: Improving SRH Services for PLHIV: Small group work and large group discussion

<b>Purpose</b>	<ul style="list-style-type: none"> <li>• Develop a site-specific action plan to improve accessibility of SRH services for hard-to-reach populations</li> </ul>
<b>Instruction</b>	<p><b>Part 1: Small Group Work</b></p> <ol style="list-style-type: none"> <li>1. The trainer will begin the exercise by breaking the participants into 5 small groups, each representing one of the following populations: women living with HIV; men living with HIV; female sex workers; men who have sex with men; adolescents.</li> <li>2. Each group will receive a piece of flip chart paper for notetaking.</li> <li>3. Participants (working in their small groups) will be asked to list the specific SRH services that the group they represent might need.</li> <li>4. Groups should list some of the individual, community, and the healthcare system barriers that their target group might experience when accessing services.</li> <li>5. Groups should think of a solution that nurse mentors and educators might be able to implement, in response to each barrier related to the healthcare system (e.g. change in the staff’s skills and values), that would help their target group access SRH services more easily.</li> <li>6. Participants should remember that good solutions are “SMART,” or:             <ul style="list-style-type: none"> <li>• <b>Specific:</b> It addresses the matter specifically</li> <li>• <b>Measurable:</b> It can be measured to determine whether it has been achieved.</li> <li>• <b>Achievable:</b> It is within the means and capacity of your group.</li> <li>• <b>Realistic:</b> It is practical and can be accomplished within a reasonable time frame.</li> <li>• <b>Time-bound:</b> The time period for reaching it is clearly specified.</li> </ul> </li> <li>7. Groups will be asked list 1-3 specific strategies, activities, or “next steps” to achieve each solution.</li> <li>8. For each activity, groups should answer the following questions:</li> </ol>

	<ul style="list-style-type: none"><li>• <i>Who is responsible for this activity?</i></li><li>• <i>When will you be able to implement this activity?</i></li><li>• <i>What kind of support or resources (including funds) do you need in order to achieve this activity?</i></li><li>• <i>Any other comments to note about this activity or strategy?</i></li></ul> <p>9. Groups should use <i>Appendix 8B: Action Plan Worksheet</i> to record their plans.</p> <p>10. The trainer should circulate between the small groups during the discussion to respond to questions.</p> <p><b>Part 2: Large Group Discussion</b></p> <p>11. Each group has 5 minutes for presenting their plans to the larger group.</p> <p>12. After each group presents, other participants will be invited to share their feedback and suggest solutions that were not listed.</p>
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## **Module 8: Key Points**

- An important part of HIV care and treatment is assessing and responding to the SRH needs of clients. In order to do so, nurses must be comfortable talking about sexuality and SRH with their clients and knowledgeable about the common SRH issues faced by clients.
- Nurses need to stress that homosexual, bisexual, and transsexual/transgendered behaviour is **NORMAL** (regardless of the nurse's personal views). Nurses do not have to be experts on sexual orientation. A willingness to listen, be understanding, and refer clients to resources is often enough.
- Safer sex describes the range of sexual activities that do not transmit STIs (including HIV) and that protect against unintended pregnancy, but are still pleasurable. Safer sex includes sexual practices during which body fluids are not passed between partners. Using condoms is a reliable way to practise safer sex and prevent STIs, HIV and unwanted pregnancy. For people who are living with HIV, condoms also prevent re-infection. PLHIV should have free and easy access to condoms in the clinic setting.
- Sexual risk screening includes questions to help the nurse assess if the client is sexually active, if so, with whom and what risks he or she is taking. Risk reduction counselling focuses on reducing risk of HIV, STIs and unwanted pregnancy by helping the client choose a strategy that is right for him or her.
- All clients who are sexually active should be screened for STI symptoms. If there is a suspicion of an STI, then conduct a physical examination. Nurses should always follow the national STI guidelines for diagnosis and treatment.
- Nurses can also provide counselling on the safest times to become pregnant, such as when CD4 cell count is high, when the client is well, and when she is stable on and adhering to ART.
- Good family planning education— both before and at the time a method is selected — can help clients make informed, voluntary decisions with which they are more likely to adhere in the long term. Education should always include discussion of side effects.
- The following family planning methods are good options for PLHIV: condoms, COCs/POPs, injectables, hormonal implants and IUDs.
- Nurses should counsel all clients on correct condom use, whether condoms are their primary contraceptive choice or will be used for dual protection.

## Appendix 8A: Survey of Family Planning Methods

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### Barrier Methods

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#### Male and female condoms

- Only condoms provide protection from both pregnancy and STI (including HIV) transmission and acquisition.
- Male and female condoms are highly effective when used consistently and correctly every time.
- In real-life situations, and especially among clients, correct and consistent condom use may be difficult to achieve. Partner involvement is required. Some people — more often men than women — report diminished sensation when using condoms during sex.
- Condom use does not interfere with medications, however, and except when an individual is allergic to latex, there are no common side effects for male and female condoms.
- **Special considerations for the client:** Male and female condoms are safe and appropriate for all PLHIV. Because condoms are available without a prescription and are the only method offering dual protection, they are a good method for clients. It is important that condoms are always available to clients for free and without having to ask an adult for supplies. Clients require skill development and practice in learning how to use condoms and negotiate their use with sexual partner(s). Client girls are frequently not assertive about the use of condoms if their partner rejects the idea; they require counselling and peer support to feel empowered and able to negotiate condom use and overcome cultural and other barriers. Consistent and correct condom use is effective in providing dual protection, but failure rates (i.e. unintended pregnancy) for condoms are high, especially among clients, who often do not use them consistently or correctly.
- **Counselling the client about condoms:** Always demonstrate, step-by-step, how condoms are used and correct disposal. Tell the client to return to the clinic if there is any problem, they need more condoms, if they are unhappy with the method, or if they think they or their partner may have been exposed to an STI. Always ask the client to repeat the instructions to ensure understanding.

#### Spermicides and diaphragms with spermicides

- These methods are NOT recommended for clients or adults living with HIV, as they may increase the risk of HIV transmission.

## Hormonal Methods

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Hormonal contraceptives, including combined oral contraceptive pills (COCs), progestin-only oral contraceptive pills (POPs), emergency contraceptive pills (ECP), injectables, and implants are appropriate and effective contraceptive methods for many PLHIV. They are generally easy to use, are suitable for short- and long-term use, are reversible, and provide noncontraceptive health benefits.

### COCs and POPs:

- These are pills that a woman takes once a day to prevent pregnancy.
- They contain the hormones oestrogen and progestin (in the case of COCs) and progestin alone (in the case of POPs).
- Both types are very effective at preventing pregnancy when taken on schedule.
- **Special considerations for the client:** Low-dose COCs are appropriate and safe for all HIV-infected women, including adolescents. Many clients choose a COC because of the low failure rate, relief from painful periods, and the ease of using a method that is not directly related to sex. Failure rates for COCs are higher for clients than for all other age groups. Failure to take pills at the same time, every day, is often due to lack of knowledge or confusion about how to take pills. Nurses should stress that COCs can prevent pregnancy but should always be used in combination with condoms to provide STI/HIV protection. Nurses can assist clients to determine where they will keep their pills and how to remember to take them at the same time every day, similar to their ARVs. COCs are available in 21- or 28-day regimens. Most clients do better with the 28-day regimens because it is easier to remember to take a pill every day rather than stopping for 7 days.

COCs should not be taken by clients taking rifampicin for TB treatment.

ARVs may adversely affect the efficacy of low-dose COCs and/or increase their side effects. Women taking ARVs who want to use COCs can be given a formulation with at least 30mcg of oestrogen, counselled about the importance of taking COCs on time every day (without missing pills), and counselled about consistent condom use.

POPs are also safe for clients, but since they must be taken at exactly the same time everyday for them to be effective in preventing pregnancy, they may not be the best choice for clients. POPs may however be a good choice for clients who cannot tolerate estrogen in COCs or who are breastfeeding.

- **Counselling the client about oral contraceptive pills:** The most important counselling issue with clients is to make sure they understand the importance of taking pills correctly. Show the client the pill packet

and explain in detail when to start taking pills and how to take the pills. Explain that if she forgets to take her pills, she may become pregnant. Instruct the client on what to do if she misses pills (for example, if she misses one, take it as soon as she remembers, if she misses 2, take 2 pills as soon as she remembers and use a back up method, etc.). Always review possible side effects, including that breakthrough bleeding may be common in the first cycles, but is not a reason to stop taking the pills. Like with ARVs, the client should be encouraged to talk with a healthcare worker about any side effects (nausea, weight gain, breast tenderness, headaches, spotting, etc.) and told that these will usually settle over time. Go over the times when she should return to the clinic, including if she thinks she may be pregnant, she has chest pain or shortness of breath, severe headaches with blurred vision, and swelling or severe leg pain. Make sure the client understands when to come back for re-supply and not to wait until she is out of pills (like with ARVs). Always have the client repeat information back to you so you can check understanding. And always promote dual protection with male or female condoms.

### **Injectables:**

- Progestin-only injectable contraceptives, such as Nur-Isterate and Depo-Provera (depot medroxyprogesterone acetate, aka DMPA and ‘the shot’), contain no estrogen.
- To prevent pregnancy, a shot is given to the woman in the arm or upper buttock every 2–3 months, depending on the type of injectable.
- Injectables are highly effective when used correctly.
- PLHIV can use progestin-only injectables without restrictions. Clients on ART can also use progestin-only injectables safely and effectively.
- It is important to counsel clients to come for their next injection on time and without delay.
- Side effects of injectables may include spotting at first, then amenorrhea and weight gain.
- **Special considerations for the client:** Injectables are safe and appropriate for clients. Many clients like this method because they don’t have to remember to take a contraceptive pill every day and no one needs to know they are using the method. It is important that clients are reminded when to return for their injections, ideally this can be combined with their routine HIV care appointments.
- Injectables do not offer protection from STIs/HIV, so should always be used with male or female condoms.
- **Counselling the client about injectables:** Nurses should show their clients the vial of the injectable and explain how it is used. It is important to stress that the injections need to be given every 3 months and that injections can be given early if a client thinks she will not be able to return at the 3 month point. The injection will take effect immediately if she is between day 1–7 of her menstrual cycle. If the

injection is given after day 7 of her cycle, she should use a back-up method for at least 24 hours. It is important for clients to understand possible side effects, which include irregular bleeding and prolonged light to moderate bleeding with the first few cycles of injectables. With time, this should stop and many women stop getting their menstrual cycle altogether while using injectables. Some women may also have weight gain or headaches. Nurses should encourage clients to return to the clinic if they have any questions or problems or if they have very heavy bleeding, excessive weight gain, or severe headaches. Make sure the client repeats this information back to you to check understanding. As with all hormonal methods, nurses should recommend and provide condoms for dual protection.

### **Hormonal implants:**

- Progestin-only implants (eg, Implanon, Norplant) consist of up to 6 hormone-filled, matchstick-like rods, which are inserted under the skin in a woman's upper arm.
- Hormonal implants can prevent pregnancy for between 3 and 7 years, depending on the type.
- Highly effective at preventing pregnancy, implants are a long-term contraceptive method that can be easily reversed.
- PLHIV who do not take ART can use progestin-only implants without restrictions. PLHIV on ART can also use progestin-only implants, but should use condoms as a back-up method in the event that the effectiveness of the implant is reduced by ARVs.
- Side effects of implants may include nausea, weight gain, and changes in monthly bleeding. As with all hormonal methods, women should also be encouraged to use condoms for dual protection.
  
- **Special considerations for the client:** Hormonal implants, such as Norplant, are safe for clients. The main reason clients discontinue using implants is irregular bleeding; counselling is important so they are prepared for this possibility. Programmes must ensure that clients have access to services to remove implants whenever they need or want them to be removed.
  
- **Counselling the client about implants:** Nurses at the HIV clinic will likely have to refer clients to a family planning clinic for implant insertion and removal. It is important to explain how the implants work, what the insertion and removal procedures are, and how long the method will last. Clients should also be counselled on care of the insertion area and possible bruising or swelling after insertion. Clients should know where to go if they have problems or questions, or if they want the implants removed. Nurses should give information on common side effects, such as changes in bleeding, as well as serious problems requiring immediate care such as severe pain in the lower abdomen, very heavy bleeding, bad headaches, and yellowing of the skin or eyes.

## **Emergency contraceptive pills (ECP):**

- ECP is used to prevent pregnancy after unprotected sex.
- ECP can be used if no contraceptive method was used, or if the contraceptive method failed — for example, a condom broke during sex.
- ECP should be taken as soon as possible after unprotected sex (although it can be taken up to 120 hours after sex).
- Used correctly and in timely fashion, ECP can reduce the risk of pregnancy by 75%.
- ECP is usually a combination of oral contraceptives taken in 2 doses.
- ECP does not cause an abortion. It prevents an egg from implanting in the uterine wall.
- ECP is safe for all women, including those living with HIV and those taking ART.
- Side effects of ECP may include nausea, vomiting, and changes in the menstrual cycle.
- Clients receiving ECP should be counselled on adopting a regular contraceptive method, as well as on condom use for dual protection.
- **Special considerations for the client:** ECP should be widely and easily available to clients, including at the HIV clinic. Clients should be educated about the availability of ECP and the importance of coming to the clinic for ECP as soon as possible after unprotected sex. The earlier ECPs are taken after unprotected sex, the more effective they will be in preventing pregnancy. ECPs can be provided in advance to clients who are at high-risk of unprotected sex, but they should be counselled that ECPs are for emergency use only. ECPs do not provide dual protection and all clients using ECPs should be counselled on more effective contraceptive methods and condom use for dual protection.
- **Counselling the client on ECP:** Nurses should explain how ECPs work and how the client should take them (for example, the first dose should be taken as soon as possible after unprotected sex, up to 120 hours after unprotected sex, the second dose should be taken 12 hours after the first dose). If more than 120 hours have passed since unprotected sex, the client should not be given ECP. If the client vomits within 2 hours of taking a dose, the dose should be repeated. Taking the doses after eating or before bed will help reduce nausea. Nurses should review what clients can expect after taking ECPs — they may have nausea, vomiting, cramping, breast tenderness, or headaches, but these should not last more than 24 hours. The client's period should come on time (or a few days late or early), and if she does not get her period within one week of when it is expected she should return to the clinic as she may be pregnant.

## **Long-term and Permanent Methods**

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- Intra-uterine devices (IUDs):



- This small device inserted into a woman's uterine cavity is highly effective at preventing pregnancy.
- The copper-containing CuT 380A — the most commonly used IUD — remains effective for up to 12 years.
- An IUD can be provided to a woman living with HIV if she has no symptoms of AIDS and no STIs. A woman who develops AIDS while using an IUD can continue to use the device. A woman with AIDS who is doing well clinically on ART can both initiate and continue IUD use but may require follow up.
- An IUD generally should not be initiated in a woman with AIDS who is not taking ART.
- Side effects of IUDs may include heavy bleeding and pain during the first months of use, as well as spotting.
- Encourage women choosing an IUD to use condoms for dual protection.
- **Special considerations for the client:** IUDs are appropriate for clients in stable, mutually monogamous relationships. Careful screening for STIs before insertion is critical and IUDs are not recommended for PLHIV with advanced HIV disease or AIDS, especially when the client is not on ART.
- **Counselling the client about IUDs:** It is important to explain that the IUD is a long-term method that lasts for 10–12 years and that it is most appropriate for clients who are in stable, monogamous relationships. Nurses may have to refer clients for IUD insertion, but should provide counselling and follow up within the HIV clinic. It is important for clients to understand how the IUD works and how to check for the strings. Nurses should explain side effects, including cramping and pain after insertion, heavier and longer menstrual flow for the first few months, vaginal discharge, and possible infection. Bleeding usually decreases during the first and second years of IUD use, and some women may not have regular periods. Clients should know the warning signs of potential complications with IUDs, including abnormal bleeding and discharge, pain, pain during sex, fever, and strings missing/shorter/longer. Make sure the client repeats this information to ensure understanding. It is very important to use condoms to prevent STIs, which can cause infection and complications, especially when using an IUD.

### **Male and female sterilisation**

- These permanent methods are not usually recommended for clients, who may change their mind about wanting to have children in the future.
- However, some PLHIV may request sterilisation, in which case counselling should be provided and all options explored.

## **Traditional and Other Methods**

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**Natural methods** that do not require any materials (i.e. withdrawal, a woman learns to recognise when she is fertile and the couple avoids sex at this time.). In general, natural methods are not as effective in preventing pregnancy as the other “modern” methods. In some places, there are **traditional methods**. These are mostly traditional herbs that are given to prevent pregnancy. They are not reliable, because the dosage is not controlled and they are not scientifically proven.

### **Lactational amenorrhea method (LAM):**

- LAM is a temporary, natural contraceptive option for women who are less than 6 months postpartum, who are exclusively breastfeeding, and whose periods have not yet returned.
- Any clients practising LAM should be advised to use condoms for dual protection.

### **Fertility awareness methods:**

- These methods require a woman to identify the fertile days of her menstrual cycle and to abstain from sex during these times.
- To do so, she can observe fertility signs, such as the consistency of her vaginal mucus, or she can follow the calendar.
- This is a difficult method for many clients to implement correctly and consistently. It is also not very reliable for pregnancy prevention and does not protect against STIs and HIV.
- Encourage clients to use condoms as dual protection, especially during fertile days, or to abstain.
- Also counsel on the availability of more reliable contraceptive methods, emphasizing the importance of using condoms for dual protection.

Adapted from: Senderowitz, J., Solter, C., & Hainsworth, G. 2002, revised 2004.  
*Comprehensive Reproductive Health and Family Planning Training Curriculum: Module 16: Reproductive Health Services for Clients, Unit 7.* Watertown, MA: Pathfinder International.

## Appendix 8B: Action Plan Worksheet

What is the problem?	What is your solution to this problem?	What are your strategies, activities, or “next steps” to achieve the solution?	What is your timeframe?	What resources or support are needed?	Comments
		1.			
		2.			
		3.			
		1.			
		2.			
		3.			
		1.			
		2.			
		3.			

## References and Resources

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<sup>1</sup> Williams, K., Warren, C., and Askew, I. 2010. *Planning and Implementing an Essential Package of Sexual and Reproductive Health Services: Guidance for Integrating Family Planning and STI/RTI with other Reproductive Health and Primary Health Services*. UNFPA.

<sup>2</sup> Zambia Ministry of Health, ICAP, and FXB (2011). *Adolescent HIV care and treatment: A training curriculum for multidisciplinary healthcare teams, Module 10*. Lusaka, Zambia and NY, NY: MOH & ICAP.

<sup>3</sup> Senderowitz, J., Solter, C., & Hainsworth, G. 2002, revised 2004. *Comprehensive Reproductive Health and Family Planning Training Curriculum: Module 16: Reproductive Health Services for Clients, Unit 7*. Watertown, MA: Pathfinder International.

# **Module 9      Review of Clinical Decision-Making, Course Evaluation, and Closure**

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**Session 9.1: Review of Clinical Decision-Making**

**Session 9.2: Reflection on Training Objectives and Concerns,  
Expectations, and Strengths**

**Session 9.3: Post-test, Training Evaluation, and Closing**

## **Learning Objectives**

**After completing this module, participants will be able to:**

- Review basic principles of clinical decision-making and evidence-based clinical practice.
- Review teaching strategies that nurse mentors and educators can use to help promote clinical decision-making with their mentees.
- Be familiar with the core competencies needed to provide HIV care and treatment services.
- Discuss whether or not the training objectives have been achieved.
- Reflect on the concerns, expectations, and strengths discussed on the first training day.
- Complete the training post-test.
- Evaluate the training and given suggestions for improvement.

## Session 9.1      Review of Clinical Decision-Making

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### Session Objectives

**After completing this session, participants will be able to:**

- Review basic principles of clinical decision-making and evidence-based clinical practice.
- Review teaching strategies that nurse mentors and educators can use to help promote clinical decision-making with their mentees.
- Be familiar with the core competencies needed to provide HIV care and treatment services.

### Key Points for Clinical Decision Making<sup>i</sup>

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Health facilities in resource-settings may lack some diagnostic technology, so clinical reasoning skills are vital for nurses. The following evidenced-based medicine principles should be reinforced with mentees to improve their clinical diagnosis skills:

- Occam's razor advises choosing the simplest hypothesis that explains a set of clinical findings. **HOWEVER**, keep in mind that when dealing with an immunocompromised client, there may be more than one pathological process occurring at the same time in the same or in different organs.
- Sutton's law (named after a famous bank robber who explained that he robbed banks because "that's where the money is") suggests that a clinician consider common causes in the local region for a client's symptoms before considering uncommon causes.
- Plan your initial empiric or syndromic treatment so that you cover the most common causes and the most serious (life threatening) possible causes.
- In contrast to Sutton's law, consider what could kill a patient rapidly, even if that diagnosis may be uncommon.
- Avoid premature closure of your diagnostic process. Start out with a broad differential diagnosis and don't prematurely eliminate possibilities without sufficient evidence.
- Don't be overconfident. Seek reasons why your decisions may be wrong and consider alternative hypotheses. Ask questions that would disprove as well as prove your current hypothesis.
- Know what you don't know. Seek the missing information (e.g., from a book, a consultant, from the Internet).
- Common diseases sometimes have uncommon presentations and uncommon diseases can sometimes look like very common ones. Just because a clinical presentation looks similar to or is "representative of" a particular illness does not prove that the cause is due to that illness.
- Remember that we tend to over diagnose conditions that we have recently seen, especially those that were particularly dramatic or in which we made a mistake that we want to avoid in the future.

- Correlation  $\neq$  causation. Just because two findings occur together, doesn't necessarily mean that one caused the other.

## **Teaching Strategies for Nurse Mentors and Educators**

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There are various teaching methodologies that have been modelled and discussed during this training course, which can help nurse mentors and educators build mentees' clinical decision-making and problem-solving skills:

### **Problem-based case studies and case conferences**

Nurse mentors and educators can use case studies for small group, lunchtime discussions, and in-service workshops. Cases should be based on scenarios that regularly occur in your clinic setting. Include discussion questions as well as other resources that the mentee may use, such websites, journal articles, and books.

### **Review of clinical guidelines**

**It is essential that nurses understand and follow all applicable national guidelines.** Lunchtime training sessions are an efficient way to review and discuss updates to guidelines, without detracting from the workday.

### **Independent learning assignments**

Nurse mentors and educators can integrate evidence-based decision-making into any curriculum, through the use of written assignments. Ask mentees to draft a paper following this basic structure:

- Introduction: Describe a difficult clinical decision and explain why it was challenging.
- Literature: Describe the clinical options supported by at least 3 references.
- Clinical Interventions: Describe your intervention, including your role in providing information to help clients make informed decisions about their own health and the role of other members of the multidisciplinary team.
- Summary and Conclusion: Describe key highlights of your paper.

### **Demonstrations**

A demonstration shows the skills needed to successfully perform a particular task or technique. The trainer or a participant demonstrates the task, describing each step and explaining the skills needed and the reasons for performing it in a particular way. It is often followed by a practice session where the participants perform the activity under the supervision of the trainer. Before you conduct a demonstration, arrange the necessary equipment and practice the skill. Allow sufficient time for learners to practice in pairs or in small groups.

### **Use of job aids**

Algorithms, cue cards, pocket diagnostic guides, wall charts, and other visual aids can help mentees develop logical assessment and decision-making skills and can assist job performance by prompting nurses on the essential steps and content of clinical practices. Many of the appendices in this manual can be adapted and transformed into mentoring tools.

- For example, for the nurse management of ART, concise outlines of SOPs may be useful for critical practices such as: determining national eligibility criteria for ART, steps in initiating a client on ART, adherence counseling, baseline assessment, laboratory investigations, identification of treatment failure criteria, and steps in referring an ART client to physician care
- Additional job aids that can facilitate clinical practice include concise, standardized patient assessment and follow-up visit forms, adherence counseling checklist, procedure flow diagrams, and materials for client education on ART and other opportunistic infections.

### **Peer Assessment and Feedback**

Mentees can learn from and teach each other by assessing one another during classroom demonstrations, role-plays, and presentations. Peer assessment should be used to provide positive feedback on a skill or task and suggestions for improvement in the future. This method is best utilized when peers can take turns observing, assessing and providing feedback. In this way everyone is given the opportunity to assess a peer as well as be assessed.

### **Teaching Clinical Skills**

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- Consistent practice of clinical skills creates the foundation for clinical decision-making.
- Nurse mentors and educators can use *Appendix 9A: Skills Transfer Checklist* as a clinical teaching aid to use with their mentees. Mentors and mentees can use checklist to identify which clinical skills are most relevant and necessary for their setting and incorporate them into their mentoring and teaching plans. The checklist should be adapted to local settings as needed.
- Nurse mentors and educators should always apply the 5-step method for teaching clinical skills<sup>ii</sup>:
  1. Provide an overview of the skill and how it is used in client care.
  2. Demonstrate exactly how the skill is conducted without commentary.
  3. Repeat the procedure, but describe each step.
  4. Have participant “talk through the skill” by detailing each step.
  5. Observe and provide feedback to the participant as he or she performs the skill.



## Session 9.2

# Reflection on Training Objectives and Concerns, Expectations, and Strengths

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### Session Objectives

**After completing this session, participants will be able to:**

- Discuss whether or not the training objectives have been achieved.
- Reflect on the concerns, expectations, and strengths discussed on the first training day.

### Campus-to-Clinic (CTC) Training Objectives

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By the end of this training course, participants will:

- Explain how the principles of adult learning theory apply to mentoring.
- Demonstrate basic communication and mentoring skills.
- Discuss the prevalence and impacts of HIV globally, in sub-Saharan Africa, and in their own country setting.
- Review the definitions of and differences between HIV and AIDS.
- Review key components of HIV transmission, testing, counseling, and prevention protocols.
- Review the key information for the clinical care package of HIV care and treatment services for PLHIV.
- Review key features of HIV disease progression.
- Review laboratory tests used to diagnose HIV in infants, children, and adults.
- Apply the WHO clinical staging system for HIV-infected children and adults.
- Review routine care and treatment procedures for pregnant HIV-infected women.
- Describe procedures for safe infant feeding practices.
- Review clinical manifestations, diagnosis, prevention, and treatment of tuberculosis (TB).
- Discuss challenges one may encounter when simultaneously using ART and anti-TB drugs to treat co-infected individuals.
- Reflect on their own attitudes, values, and beliefs on sexuality and discuss how these may affect their work with clients.
- Identify prevention strategies used successfully in preventing STI/HIV transmission.
- Review childbearing choices and contraceptive options for women living with HIV.
- Practice how to educate clients on issues of sexuality, positive prevention, discordance, and sexual health.
- Review basic principles of clinical decision-making.

## **Organisational Challenges for Nurse Mentors and Educators**

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- Nurse mentoring works best in settings where all staff are valued for their contribution to caregiving, supervision is well structured and functioning at all levels within the organization, employees receive adequate compensation for their work, and nursing staff recognize the important role nurse mentors and educators play in training and acclimating new employees.
- If the nurse mentor and educator role is not properly explained to the entire staff before the program is implemented, nurse mentors and educators are likely to encounter resistance at many levels. Staff often hold back when asked to participate in an organizational change process because they fear that the change will disrupt relationships with co-workers. Involving all staff in defining the role and structuring the program will reduce these tensions and ensure that mentors play a positive role within your organization.

## **Follow Up Ideas for Nurse Mentors and Educators**

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- It is important to ensure there is sufficient organizational support for nurse mentors and educators. “Talk up” the program, letting people know how nurse mentoring will benefit the health facility. Solicit input regarding program design. In order for a mentoring program to be effective, the organization’s leadership must support it.
- It is important to also ensure there is the staff person who will provide primary oversight for the nurse mentoring program. Their responsibilities should include matching mentors to mentees, ensuring that mentors fulfill their responsibilities, scheduling, troubleshooting, and providing support to nurse mentors and educators who may find themselves in situations they don’t know how to handle.
- The nurse must have access to continuing education opportunities to remain current on developments in the science of HIV and clinical practices related to HIV service delivery and ART; specifically, attendance at a minimum number of scientific and clinical updates should be mandated.
- Additional in-service trainings, once nurse mentors and educators are carrying out their new responsibilities, are a good chance to build on early learning experiences.
- Nurse mentors and educators can ease the transition from the training environment to the work environment, by assisting one another with problem solving, clinical skills, and handling the emotional impact of the work.
- Peer support or peer supervision sessions can provide an opportunity for nurse mentors and educators to meet, discuss challenges, and share ideas about how these can be overcome.

## Session 9.4 Post-test, Training Evaluation, and Closing

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### Session Objectives

After completing this session, participants will be able to:

- Complete the training post-test.
- Evaluate the training and given suggestions for improvement.

### Training post-test

- Participants will have about 20 minutes to complete the post-test, which can be found in *Appendix 9B: Post-test*. The post-test contains the same questions as the pre-test, which participants took in Module 1.
- Participants should record the same number at the top of the post-test as was written at the top of their pre-tests.
- Tests will be scored and then compared to the pre-test results. Changes in scores from the beginning to the end of the training will reflect the group's (not an individual's) knowledge gain from the beginning to the end of the course. The results will provide some indication of whether the material and teaching methods have been successful.
- The test answers will be reviewed after the post-tests are collected.

### Exercise 1: Training Evaluation: Individual work

<b>Purpose</b>	<ul style="list-style-type: none"><li>• To get participants' feedback on the training.</li></ul>
<b>Instruction</b>	<ol style="list-style-type: none"><li>1. Participants will have 10–15 minutes to complete the training evaluation form, which they can find in <i>Appendix 9C: Training Evaluation Form</i>. Participants need not write their name or position on the form if they do not want to, but that it is helpful to provide the name of their facility if they feel comfortable doing so.</li><li>2. When completing the 2nd section "How helpful were each of the training modules to you and your work? If you have specific comments, please write them on the next page", participants should feel free to refer to their Participant Manuals as a way of refreshing their memory on the content of each of the modules.</li></ol>

## Appendix 9A: Skills Transfer Checklist

This checklist includes many of the core competencies taught during the training. The checklist can be used as an instructional tool when nurse mentors and educators return to their sites after training, as part of supportive supervision and nurse mentoring activities.

**Nurse Mentor/Educator Instructions:** As you observe the mentee demonstrating a clinical skill, tick your rating as GOOD, FAIR or POOR. Record any comments or recommendations in the right-hand column; be prepared to share comments with the mentee. Complete this checklist over time during bedside teaching, supportive supervision, or observed skill practice with your mentee. In the “Comment” column, record areas for improvement or further study.

**Name of Mentee:** \_\_\_\_\_

**Dates of Observation:** \_\_\_\_\_

**Name of Nurse Mentor/Educator(s):** \_\_\_\_\_

**Name of Health Facility:** \_\_\_\_\_

CORE COMPETENCIES	NURSE MENTOR or SELF-RATING (TICK ONE)			COMMENTS
	GOOD	FAIR	POOR	
<b>HIV Transmission, Counselling, and Testing</b>				
Explains ways HIV is transmitted and is not transmitted				
Offers HIV testing to every client of unknown status				
Can appropriately explain progression of HIV and how HIV affects the immune system				
Effectively presents HIV pre-test counselling to a group of clients				
Effectively provides a HIV pre-test individual session to client				
Effectively provides a HIV post-test individual session for HIV-positive test result				
Effectively provides a HIV post-test individual session for HIV-negative test result				

CORE COMPETENCIES		NURSE MENTOR or SELF-RATING (TICK ONE)			COMMENTS
		GOOD	FAIR	POOR	
Effectively provides a HIV post-test individual session for HIV-indeterminate test result					
Demonstrates familiarity with national HIV counselling and testing guidelines, if applicable					
<b>Clinical Care Package for PLHIV</b>					
Describes the components of comprehensive HIV care					
Performs at least 1 baseline clinical assessment for each of the following: 1. Adult female 2. Adult male					
Performs at least 1 follow-up clinical assessment for on each of the following: 1. Adult female 2. Adult male					
Assesses and addresses clients' psychosocial needs during clinical visits					
Correctly inputs relevant information from clinical visits into client records					
Demonstrates familiarity with national HIV guidelines — identifies criteria for ART initiation, failure, and prophylaxis in adults and adolescents (over 15 years of age)					
Correctly assesses WHO clinical stage for at least 1 adult client					
Performs at least 1 adherence readiness assessment, to help client prepare for lifelong ART, on each of the following: 1. Adult female 2. Adult male					

<b>CORE COMPETENCIES</b>		<b>NURSE MENTOR or SELF-RATING (TICK ONE)</b>			<b>COMMENTS</b>
		<b>GOOD</b>	<b>FAIR</b>	<b>POOR</b>	
Performs at least 1 adherence follow-up assessment, and helps with adherence challenges, on each of the following: 1. Adult female 2. Adult male					
Prescribes CTX correctly to at least 1 eligible adult client					
Demonstrates knowledge of relevant laboratory tests and their frequency, needed for adult PLHIV					
Applies 5 “A’s” to structure at least 1 clinical visit					
<b>PMTCT</b>					
Provides PMTCT counselling and information; refers pregnant clients for PMTCT services					
Provides appropriate education on infant feeding to at least 1 client					
Demonstrates appropriate care of HIV-Exposed Infant, including HIV testing or referral for HIV testing at appropriate intervals					
<b>Paediatric HIV</b>					
Performs at least 1 clinical assessment on at least 1 child client					
Assesses WHO stage for at least 1 child client					
Demonstrates familiarity with national paediatric HIV guidelines — identifies criteria for ART initiation, failure, and prophylaxis in children					
Provides disclosure support to caregivers and their HIV-infected children					

<b>CORE COMPETENCIES</b>		<b>NURSE MENTOR or SELF-RATING (TICK ONE)</b>			<b>COMMENTS</b>
		<b>GOOD</b>	<b>FAIR</b>	<b>POOR</b>	
<b>HIV and TB</b>					
Screens all HIV-infected clients for TB					
Implements case finding for contacts of client with confirmed TB					
Prescribes or refers at least 1 eligible client appropriately for isoniazid preventive therapy (IPT)					
Follows correct protocol for infection control in clinic setting					
Follows correct protocol for TB treatment or referral to treatment facility					
<b>Sexual and reproductive health</b>					
Provides non-judgemental counselling about a client's sexuality and SRH issues					
Provides non-judgemental, accurate sexual risk reduction counselling and ways to practise safer sex					
Provides condoms to clients and accurately demonstrates male and female condom use					
Provides appropriate STI counselling, screening, and treatment (or referrals to treatment) for male and female clients					
Provides accurate, non-judgemental contraceptive counselling and supplies (and/or referrals)					
<b>Clinical Decision-Making</b>					
Uses sufficient, available evidence to make a clinical decision or diagnosis					
Proactively seeks missing information and consults supervisor appropriately, when needed					

**FINAL EVALUATION BY NURSE MENTOR/EDUCATOR:**

**Name of mentee:** \_\_\_\_\_

**Tick one:**

- \_\_\_\_\_ Demonstrated a majority of core competencies effectively and is ready to start providing HIV care and treatment services in a clinical setting
- \_\_\_\_\_ Demonstrated some core competencies effectively, but still needs more practice before providing HIV care and treatment services in a clinical setting
- \_\_\_\_\_ Unable to demonstrate most skills and should participate in additional training before providing HIV care and treatment services in a clinical setting

**Additional comments:**

**Nurse Mentor/Educator signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Mentee signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_



## Appendix 9B: Post-test

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Participant identification number: \_\_\_\_\_ Score: \_\_\_\_/25

- 1) Which of the following are good teaching strategies for nurse mentors and educators? (**select all that apply**)
  - a) Using case studies with mentees
  - b) Independent learning assignments
  - c) Bedside teaching
  - d) Use of visual aids
  - e) All of the above
  
- 2) A HIV-infected adolescent or adult client with which of the following meets eligibility criteria for ART?
  - a) WHO stage 2 illness
  - b) CD4  $\leq$ 350 or WHO stage 3 or 4, regardless of CD4 count
  - c) Past history of TB
  - d) I don't know
  
- 3) Before initiating ART, nurses should also think about:
  - a) Readiness for ART: The client understands what ARVs are, how they are to be taken, and is ready to take on this life-long commitment
  - b) Ability and willingness of client to return for regular follow up
  - c) Adverse reactions to cotrimozazole
  - d) All of the above
  - e) A and B
  
- 4) Which of the following statements are true regarding HIV counselling and testing?
  - a) Clients with HIV-negative rapid tests should repeat testing in 3 months to exclude the window period
  - b) It is the responsibility of clients only to initiate or request HIV testing, not providers
  - c) Both are true
  - d) Neither are true
  
- 5) When should a PCR test be done to check HIV status in an infant born to a HIV-infected mother?
  - a) 2 weeks
  - b) 6 weeks
  - c) 10 weeks
  - d) At birth
  
- 6) When should HIV-infected clients be screened for TB?
  - a) Initial visit
  - b) Initial visit + every 3 months
  - c) Initial visit + when complain of symptoms

- d) Initial visit + every follow-up visit
- 7) Who should be screened for HIV?
- A 28 year old male with multiple sexual partners
  - A 15 year girl with pulmonary TB
  - A 70 year old male with back pain
  - A 24 year old pregnant woman who was HIV-negative during her previous pregnancy
  - All of above
- 8) Family-centred care means that nurses and other healthcare workers can talk openly with caregivers about any information shared between the client and healthcare workers.
- True
  - False
- 9) Ideally, a client's CD4 cell count should be monitored how frequently?
- Every 12 months; but 6 monthly as CD4 count approaches threshold (to initiate ART)
  - Every 9 months; but 4 monthly as CD4 count approaches threshold
  - Every 6 months; but 3 monthly as CD4 count approaches threshold
  - Every 4 months; but 2 monthly as CD4 count approaches threshold
  - Every 2 months; but monthly as CD4 count approaches threshold
- 10) In HIV-infected clients, the combination of findings that could be seen with active TB are:
- A positive sputum smear with an abnormal chest x ray
  - A positive sputum smear with a normal chest x ray
  - A negative sputum smear with an abnormal chest x ray
  - Any of the above
- 11) Which are not the following are classes of antiretrovirals?
- NRTIs
  - NNRTIs
  - Tricyclics
  - Protease Inhibitors
- 12) The process of HIV post-test counseling with a client (who tests positive for HIV) should include discussion of the following:
- The diagnosis, the infection and disease process, and health changes that could occur.
  - Strategies for reducing risk of transmission to others
  - How to cope with the possible negative reactions of others
  - A and C
  - All of the above
- 13) The only reliable way to assess client adherence is with pill counts.
- True
  - False

- 14) Which of the following statements is correct?
- a) Nurses need to stress that only heterosexual behaviour is NORMAL
  - b) Nurses need to stress that homosexual, bisexual, and transsexual/transgendered behaviour is NORMAL
  - c) Nurses need to stress that homosexual, bisexual, and transsexual/transgendered behaviour is ABNORMAL
  - d) Nurses need to stress that transsexual/transgendered should not be tolerated
- 15) HIV infection, its progression in the body, and its effects on the immune system can generally be broken down into these stages: **(select all that apply)**
- a) Primary infection
  - b) Clinically asymptomatic stage
  - c) Subclinical stage
  - d) Symptomatic HIV infection
  - e) Progression from HIV to AIDS.
- 16) Nurses should always screen for STIs in clients who are sexually active.
- a) **True**
  - b) False
- 17) What advice would you give a HIV-infected client who wants to get pregnant? **(select all that apply)**
- a) It is safest when both partners have CD4 count of over 350
  - b) Do not eat eggs while pregnant
  - c) Talk to your provider and ask for his/her advice
  - d) Make sure you do not have any opportunistic infections
  - e) Make sure you are adhering to your ART regimen
- 18) Which of the following are good family planning options for PLHIV? **(select all that apply)**
- a) Condoms
  - b) Combined oral contraceptive pills (COCs), progestin-only oral contraceptive pills
  - c) Natural (fertility awareness) method
  - d) Hormonal implants
- 19) Which are key concepts of PMTCT? **(select all that apply)**
- a) Keep mothers healthy: a healthy mother is able to take care of herself, her baby and her family
  - b) It is important to reduce risk of HIV transmission during pregnancy, labour, delivery, and breastfeeding
  - c) All babies of HIV-infected mothers need ARVs and CTX
  - d) HIV-infected women should limit the number of children they have
- 20) Which of the following statements are true for paediatric HIV testing? **(select all that apply)**

- a) Paediatric HIV testing requires the participation and cooperation of the caregiver(s), who may also be living with HIV and coping with his or her own illness
- b) Identifying HIV early in life is even more critical in children than in adults given their fast disease progression and high mortality rates
- c) HIV testing in children less than 18 months of age or in those who are still breastfeeding is a one-time event
- d) The goal of diagnosing children as early as possible is to identify HIV-exposed and HIV-infected children and engage them in life-saving care

21) Which statements are true for isoniazid preventive therapy (IPT)?

**(select all that apply)**

- a. The WHO clearly recommends that a course of IPT should be provided to all HIV-infected clients who are not currently on treatment for TB and who have a negative symptom screen
- b. It is important to delay initiation of ARV therapy in favour of IPT
- c. IPT is safe for most people
- d. All of the above

22) Adults learn the best when: **(select all that apply)**

- a) The information they are learning is relevant to their jobs
- b) Adults prefer a learning environment where they feel valued and respected for their experiences
- c) Adults are mainly auditory learners
- d) Adults appreciate having an opportunity to apply what they have learned as soon as possible
- e) All of the above

23) Which statements apply to the 5-step method of teaching clinical skills?

**(select all that apply)**

- a) Provide an overview of the skill and how it is used in client care
- b) Demonstrate exactly how the skill is conducted without commentary
- c) Repeat the procedure, but describe each step
- d) Point out errors using judgmental and critical language
- e) Have participant “talk through the skill” by detailing each step
- f) Observe and provide feedback to the participant as he or she performs the skill

24) It is important for nurse mentors and educators to establish mentoring action plans with their mentees because: **(select all that apply)**

- a) Action plans and work plans, can help prioritise, guide, and monitor work and learning in a specific area over time
- b) Having a comprehensive and measurable action plan will help ensure mentees learn key competencies related to HIV care and treatment after returning to their clinic
- c) Action plans can help nurse mentors and educators identify the key responsibilities of the role and optimise the support you provide to your mentees

d) Action plans are a waste of time

25) Which statements are true for WHO clinical staging? (**select all that apply**)

- a) There is 1 staging system for adults and children
- b) Staging should be assessed at time of HIV diagnosis, prior to starting ART, and with each follow-up visit to assess response to ART and to monitor disease progression
- c) A full clinical assessment and medical history is NOT required for staging
- d) If a person has one or more conditions listed within the stage, they are categorized into that stage
- e) There are three points that should be kept in mind when staging clients: their recent clinical signs, their most recent clinical diagnosis if any made, and the level of activity of client

## Appendix 9C: Training Evaluation Form

Name (optional): \_\_\_\_\_

Health facility where you work (optional): \_\_\_\_\_

**INSTRUCTIONS:** Please rate the following statements on a scale of 1 to 5.

	☹ Strongly Disagree	Disagree	Neither agree nor disagree	Agree	☺ Strongly Agree
1. The training objectives were clear.	1	2	3	4	5
2. This training met my expectations.	1	2	3	4	5
3. The technical level of this training was appropriate.	1	2	3	4	5
4. The pace of this training was appropriate.	1	2	3	4	5
5. The facilitators were engaging and informative.	1	2	3	4	5
6. The information I learned in this training will be useful to my work.	1	2	3	4	5

How helpful were each of the training modules to you and your work? If you have specific comments, please write them on the next page.

	☹ Not helpful				☺ Very helpful
Module 1: Course Overview and Introduction to Nurse Mentoring and Adult Learning	1	2	3	4	5
Module 2: HIV Transmission, Counselling, and Testing	1	2	3	4	5
Module 3: Clinical Care for People Living with HIV	1	2	3	4	5
Module 4: The Progression of HIV	1	2	3	4	5
Module 5: Preventing Mother-to-Child Transmission of HIV	1	2	3	4	5
Module 6: Paediatric HIV	1	2	3	4	5
Module 7: Tuberculosis and HIV	1	2	3	4	5
Module 8: Sexual and Reproductive Health Services for People Living with HIV	1	2	3	4	5
Module 9 Review of Clinical Decision-Making, Course Evaluation, and Closure	1	2	3	4	5

**What was the best part of this training?**

**How can we improve this training?**

**Other comments:**

**Thank you for your participation, and for your commitment to people living with HIV and their families!**

## References and Resources

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<sup>i</sup> Borrowed from ITECH, Basics of Clinical Mentoring: Clinical Diagnosis and Decision-Making Skills

<sup>ii</sup> Adapted from: George, J.H., & Doto, F.X. 2001. A simple five-step method for teaching clinical skills. Family Medicine, 33, 577-8.