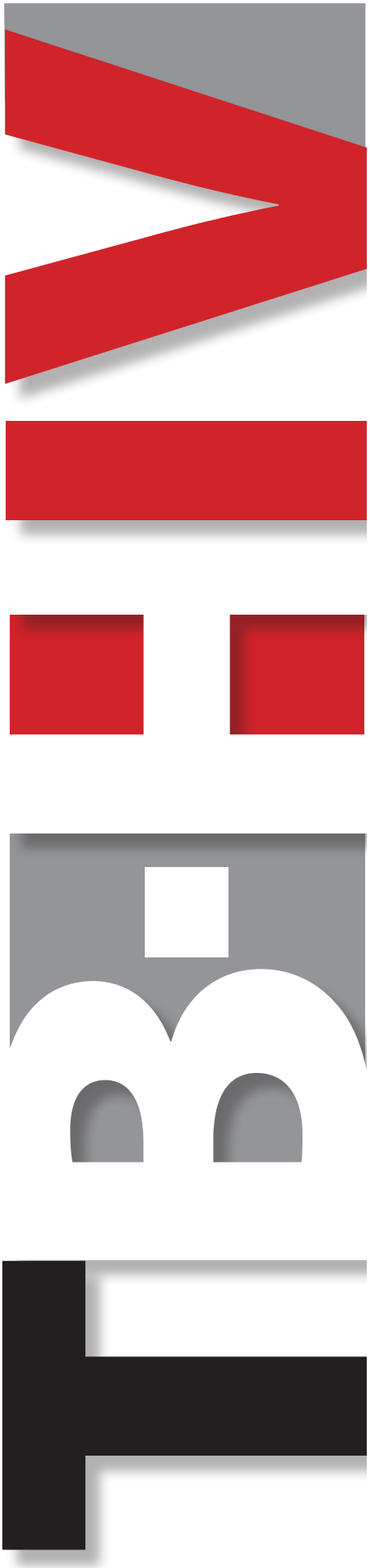
Facilitator's Guide for the IMAI TB-HIV Co-management Training Course

INTEGRATED
MANAGEMENT OF
ADOLESCENT AND ADULT
ILLNESS (**IMAI**)



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This training manual is part of a health workers training course for (clinical officers and nurses) at first-level health facilities (health centres or district hospital outpatient clinics). It also teaches how to use the *IMAI/STB TB Care with TB-HIV Co-management* guideline module, and also makes reference to the *IMAI/IMCI Chronic HIV Care with ART and Prevention* guideline module.

These materials are based on input from:

- WHO's HIV Department Integrated Management of Adolescent and Adult Illness (IMAI) team: Sandy Gove, Akiiki Bitalabeho, Eyerusalem Negussie; ATC: Reuben Granich;
- WHO's Stop TB Department: Rose Pray, Haileyesus Getahun;
- Centres for Disease Control and Prevention (CDC) Global AIDS Program, Atlanta, USA: Bess Miller, Naomi Bock, and others;
- The IMAI Project, Brigham and Women's Hospital, Harvard University, Boston, USA; KJ Seung,
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- ACT International, Atlanta, USA.

The authors also gratefully acknowledge significant input from the CDC Global AIDS Program's Training Course on Diagnostic HIV Testing and Counselling in TB Programs.

Prior to use, please ask for the most up-to-date version of this course. We also ask that you provide feedback. We will continue to improve both the IMAI guidelines and these training materials and add additional training aids such as video materials and further photo booklet case exercises. Work is also ongoing to translate IMAI materials into several languages.

Prior to implementing this course, please check the www.who.int/hiv/capacity website (register on the IMAI Sharepoint website to get the most current drafts), or e-mail imaimail@who.int, or contact the IMAI team at WHO's Department of HIV/AIDS for updates and other implementation support.

Table of Contents

Course Director Preparation for the IMAI TB-HIV Co- management Training

1. Overview of IMAI TB-HIV co-management course

Target audiences:

The target audiences of this training are:

- Nurses and clinical officers who are at primary facilities at health centres and outpatient department of district hospitals.

The TB and HIV Care/ART services might be provided in separate or in the same clinic. This course is applicable to both situations.

Training objectives:

The course is designed as in-service training with the overall objectives of:

- Providing competence-based training to nurses and clinical officers on TB-HIV co-management

This two-day training course assumes that participants have been previously trained in:

- **IMAI basic clinical training in HIV care, ART and prevention** (based on *IMAI/IMCI Chronic HIV Care with ART and Prevention* guideline module)
- **Provider-initiated testing and counselling short course for clinicians**
- **Basic first-level facility training in TB care**

Purpose of this guide:

This guide is meant to be used to aid in facilitation in conjunction with the *Participant Manual for the IMAI TB-HIV co-management training manual*. Along with the course materials, it is helpful to use the *Facilitator's Guide to the Preparation of Expert Patient-Trainers* for instructions on set up and use of the skill stations.

This course includes nine chapters:

Chapter 1: Course introduction

Chapter 2: Basic introduction to TB and HIV

Chapter 3: Diagnosis of HIV infection in TB patients and those suspected of having TB

Chapter 4: How to diagnose TB in HIV-infected patients

Chapter 5: What to do when TB disease develops in an HIV-infected patient

Chapter 6: What to do when a TB patient is found to be HIV-infected

Chapter 7: Does your TB-HIV patient need ART?

Chapter 8: How to co-manage TB and HIV

Chapter 9: Providing special care for newborns, partners and other household contacts

What does this course cover?
The module will take you through:

- The link between TB and HIV
- HIV testing and counselling in TB patients and those suspected of having TB
- Common symptoms of TB
- Assessing and classifying patients with cough or who have difficult breathing
- Sending sputum samples and responding to TB sputum results
- Managing HIV-infected patients with severe pneumonia when referral is not possible
- What to do when TB disease develops in an HIV-infected patient
- What to do when a TB patient is found to be HIV-infected
- When to refer an HIV-infected TB patient
- WHO clinical staging of the HIV-infected TB patient
- When to refer a patient for TB-ART co-treatment
- Initiating and monitoring cotrimoxazole prophylaxis therapy for a TB-HIV patient
- Special adherence considerations for HIV-infected TB patients
- Recording information on the TB treatment card and the HIV care/ART card
- Monitoring TB/ART co-treatment
- Patient and treatment supporter education and support
- Promoting and supporting chronic HIV care after completion of TB treatment
- INH preventive therapy and BCG immunization for household contacts who contract TB

Training methodology:

This course adopts a participatory and interactive approach. Participants will work through the sections with the aid of facilitators and Expert Patient Trainers (EPTs) and will learn through a combination of individual reading sessions, group discussions, facilitator-led drills, short answer exercises and case studies, and skill stations. The course is designed to maximize involvement of all participants.

Note on training methodology:

- Case studies should be done individually (with feedback from the facilitator).
- Drills are done in groups.

Facilitator Guide for the IMAI TB-HIV co-management Training course

Sample Training Schedule

The following sample training schedule guides the course director and facilitator in preparation for this course.

Day 1	Chapters 1-5 **Skill Station: 2 hours**	**Chapter 1:**	Course introduction
		Chapter 2:	Basic introduction to TB and HIV
		Chapter 3:	Diagnosis of HIV infection in TB patients and those suspected of having TB
		Chapter 4:	How to diagnose TB in HIV-infected patients
		Chapter 5:	What to do when TB disease develops in an HIV-infected patient
Day 2	Chapters 6 - 9 **Skill Station: 2 hours**	**Chapter 6:**	What to do when a TB patient is found to be HIV-infected
		Chapter 7:	Does your TB-HIV patient need ART?
		Chapter 8:	How to co-manage TB and HIV
		Chapter 9:	Providing special care for newborns, partners and other household contacts

Training Materials for participants:

Each participant should receive:

- Participant manual for IMAI/STB TB-HIV co-management course (this course)
- Country adapted WHO TB care with TB-HIV co-management guideline module
- Country adapted WHO HIV Care with ARV Therapy and Prevention guideline module
- Country adapted IMAI Acute Care guideline module

Chapter 1: COURSE INTRODUCTION

Duration:
45 minutes

Materials:
Flipchart, marker,

Preparation:

Purpose: To introduce participants and orient participants on the context of the training

Learning objectives:
At the end of this session participants will be able to:

- Know fellow participants and facilitators
- Recognize the roles of facilitators
- Recognize key administrative arrangements for the training
- Describe the learning objectives of this training
- Recognize the context of this training course and how Module I is structured

Content	Methods	Duration
Participants and facilitators Introduction,	Ice-breaker introduction	25 min
Administrative issues, overall objectives of the training, and	Presentation, Questions and Answers (Q and A)	20 min

1. **Read** through the session objectives aloud.
2. If participants do not know you or do not know each other, introduce yourself and other facilitators as facilitators of this course and write your names on the flipchart.
3. Next, as an ice-breaker, invite the group to come up with ideas about what they would like to know about someone when they meet them for the first time. Write their responses on the flip chart, for example: name, age, where they come from, what they do, marital status, do they have children, what they like to do in their free time.
4. Tell participants that they will have the task of introducing each other to the rest of the group. Ask participants to turn to the person on their right and spend the next 3 minutes talking with each other, and finding out what they want to know when they meet for the first time.
5. Give the first pair a box of wooden matches. Standing up, they will introduce their partner in the time it takes for the match burn, selecting what they think is especially important or interesting about their partner. The participants continue in this way around the room until each participant has introduced their partner.

6. In addition to the introductions, give each participant a piece of card. Ask them to fold it in half lengthwise and write their name on the card. They should then place the card on the desk in front of them so that other participants (and facilitators) can see their name.

Chapter 2: Basic introduction to TB and HIV

Duration:
55 minutes

Materials:
Flipchart, markers

Preparation:

Purpose: To understand the association between HIV and TB

Learning objectives:
At the end of this session participants will be able to understand:

- The importance of TB in HIV-positive patients
- The importance of HIV in TB patients
- Commonly used terms such as “TB” and “TB-HIV”.

Content	Methods	Duration
Tuberculosis (TB)	Reading, Questions and Answers (Q and A)	20
Tuberculosis and HIV	Reading, discussion, Q and A	35

1. Read through the learning objective aloud.
2. Ask participants what they know about TB. Put the answers on the flipchart. (Focus on the cause, and most common signs and symptoms of TB, how TB is transmitted and how to prevent its transmission).
3. Ask for volunteers to read section 1.1. *Explain to the group that when a person with pulmonary TB or TB of larynx coughs or sneezes, tubercle bacilli are spread in the air in tiny droplets, and other people become infected when they breathe in these droplets.*
4. Explain to the group the difference between TB infection and TB disease (*TB infection is sleeping (latent) infection. A person with TB infection does not have symptoms, whereas a person with TB disease has symptoms*).
5. Ask the group members if they know how common HIV infection is among their TB patients. Ask if they recommend provider-initiated HIV testing and counselling for TB patients in their clinic. Tell the group that you will discuss in detail in chapter 2 how to recommend HIV testing and counselling to TB patients and those suspected of having TB.
6. Ask a volunteer to read section 1.2. Ask for any questions or comments. Explain to the group that HIV-positive people are most at-risk of developing TB disease. (*HIV weakens the immune system and increases the risk of developing TB disease. TB is a leading killer of HIV-positive patients, and HIV-positive TB patients are at higher risk of death compared with HIV-negative TB patients*).
7. Explain to the group the link between TB disease and HIV-infection. (*People with HIV are more likely to develop TB. When a person with HIV develops TB, we call this "TB-HIV co-infection". TB is the leading killer and cause of illness of people with HIV. It is important that TB patients who are also HIV-positive gain access to care both for HIV and TB. This is called TB-HIV co-management*).
8. Now ask the group members to individually write down the answers for the following short exercise, and we will discuss the answers in the group.

Exercise 2-1: Common phrases in TB and HIV

Ask the group to write down what each phrase means individually, and then discuss the meaning of each with the whole group later.

1. TB infection

- **TB infection occurs when a person carries the tubercle bacilli (*Mycobacterium tuberculosis*) inside their body, but does not have any sign of the disease. This is also described as "sleeping" or "latent" TB.**

2. TB disease

- **When TB infection causes illness, we call it TB "disease". The patient has signs and symptoms of TB disease e.g. fever, cough, weight loss, etc.**

3. HIV infection

- **HIV is a virus that is transmitted through unsafe sex; from mother to child during pregnancy, delivery, or breast feeding; or unsafe invasive procedures and blood transfusion. HIV infection is diagnosed through a blood test, i.e. antibody test, or tests that can detect the virus, e.g. PCR.**

4. TB-HIV co-infection

- **Infection by both TB and HIV is called TB-HIV co-infection. An HIV-positive patient is more likely to acquire TB disease because the virus weakens the patients immune system.**

5. TB-ART co-treatment

- **When a patient who is on TB treatment also takes ART, it is called TB-ART co-treatment.**

6. TB-HIV co-management

- **When a patient who is taking TB treatment also receives HIV care, it is called TB-HIV co-management**.

Exercise 2-2: Short answers

1. Write down the difference between TB infection and TB disease

- **A person with TB infection does not fell sick, where as those with TB disease fells sick and has signs/symptoms**
- **Sputum smear microscopy and cultures are negative in a person with TB infection, however they are often positive in patients with TB disease**
- **A person with TB infection is not infectious, but most patients with TB disease are infectious**
- **A person with TB infection is not a "case of TB", while a patient with TB disease is a "case of TB"**

2. Describe how TB infection is transmitted from one person to another

- **When a person with pulmonary TB coughs or sneezes, tubercle bacilli are spread into the air in tiny droplets. Healthy person could breathe in these droplets and become infected by *Mycobacterium tuberculosis*.**

3. Describe how TB disease is different in HIV-infected and non HIV-infected patients

- **HIV-infected patients are more likely to have smear negative pulmonary TB and extra-pulmonary TB compared to HIV-negative persons**
- **HIV-infected patients are more likely to develop TB disease compared to HIV-negative patients**
- **HIV-infected patients with TB are more likely to die of TB disease compared to HIV-negative TB patients**

Chapter 3: Diagnosis of HIV in TB patients and those suspected of having TB

Duration:
3 hours

Materials:

Flipchart, marker EPTs, cards for sort, video and PITC DVD cassette

Preparation:
Train EPTs, set up for video demonstration,

Purpose: To build the skill of participants to recommend HIV testing and counselling to TB patients and those suspected of having TB

Learning objectives:

At the end of this session participants will be able to:

- Explain why it is important to recommend provider-initiated HIV testing and counselling to TB patients and people suspected of having TB
- Recommend HIV testing and counselling to TB patients and those suspected of having TB

Content	Methods	Duration
Reason for recommending HIV testing and counselling to those suspected of having TB and TB patients	Reading, discussion, Q and A	15 min
How to recommend HIV testing and counselling to TB patients and those suspected of having TB	Reading, Q and A	20 min
Review selected points in provider-initiated counselling and testing	Short answer exercise	25 min
Skill station	EPTs and video show	2 hours

1. Read through the learning objectives aloud.
2. Ask a volunteer to read the case under "*How would you manage these situations?" Tell the group that we will discuss the case at the end of this chapter.*
3. Ask the group about the benefits of recommending HIV testing and counselling for TB patients (write the list on the flipchart).
4. Ask volunteers to read the section under *why should TB patients and those suspected of having TB be tested for HIV*? Explain the benefits of provider initiated HIV testing and counselling to TB patients and those suspected of having TB. (*In several countries, many patients have TB disease because their immune system is weakened by HIV. If a TB patient is HIV-positive, he/she also needs HIV services. In these patients, TB treatment alone is not enough to maintain the health of the patient. The diagnosis of TB is not always simple in HIV-positive patients. HIV-infected patients are more likely to have smear-negative pulmonary TB and extra-pulmonary*

TB. Therefore, the health worker should recommend HIV testing and counselling for those suspected of having TB as it assists in diagnosing TB).

5. Ask the group if they know the principles that govern provider-initiated HIV testing and counselling (PITC). (*This test is done voluntarily after the patient provides informed consent. After the testing, post-test counselling is recommended to both who test HIV-positive or HIV-negative. Confidentiality of HIV testing, test result and other information needs to be maintained)*.
6. Ask a volunteer to read section A2.1 from the *TB care with TB-HIV Co-management* guideline module.
7. Ask participants to do exercises 2-1 and 2-2, individually and discuss in plenary.
8. Explain to the group that with Expert Patient Trainers (EPTs), during the skill-station session, we will practise recommending HIV testing and counselling to TB patients and to those suspected of having TB.

Exercise 3-1: Short Answers

1. List the three principles that govern provider-initiated HIV testing for TB patients and *those suspected of having TB*
    - **Confidentiality**
    - **Informed consent**
    - **The test should be accompanied by post-test counselling.**

2. List three benefits of recommending HIV testing and counselling for TB patients
    - **Patient with TB disease are more likely to be HIV infected.**
    - **HIV-infected TB patients need HIV care and treatment. Providing them with TB treatment alone is not enough**
    - **The diagnosis of TB is more difficult in HIV-infected patients; and they tend to have smear negative or extra-pulmonary TB. In HIV-infected patients, the health worker should continue to suspect TB even if the sputum smear is negative for AFB.**
    - **HIV care and treatment services are increasingly available in most parts of the world. Therefore, if your patient is HIV-infected he/she should access HIV care and treatment services in order for them to lead a healthy life.**

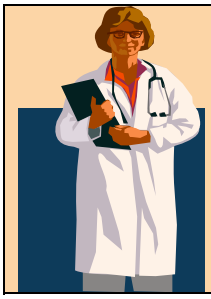
3. List two ways that you can protect the confidentiality of an HIV test result in the TB clinic
    - **Discuss the HIV test result when the patient is alone and feels comfortable**
    - **Handle all patients' medical records, registers and documents in a confidential manner.**
    - **If possible, HIV testing could be done by the health worker who also recommends the testing**

Exercise 3-2 : Short Case Studies

1. Go back to the case of John (at the beginning of the chapter). Ask a volunteer to read the case.

2. Divide the class into groups of four individuals each. Ask each group to discuss their first steps in managing John's case.

3. Discuss the first steps in managing John's case with the group in a plenary session.
    - **Send sputum for AFB smear microscopy**
    - **Recommend HIV testing and counselling (refer to pages 15-18 of the *TB care with TB-HIV Co-management* module for guidance on how to recommend HIV testing).**



Skill station: Recommending HIV testing and counselling to TB patients

- Video demonstration:
- Expert Patient Trainers (EPTs):

- Explain to the group members that they will spend the next two hours at the skill station where they will watch a video demonstrating how to recommend HIV testing and counselling to TB patients. With the EPTs they will also practise recommending an HIV test to TB patients.

- Explain to the group that the skill station is a way for them to practise the lessons they have learned in the classroom

1. **Video demonstration:** Show the short video demonstration for PITC for TB patients and those suspected of having TB. Discuss the important steps in recommending HIV testing and counseling.

2. **EPTs:**
   - Prepare the EPTs a day before this training. The EPT cases are found in the annexes of this Guide.
   - Explain to participants that:
     - There are several role-play scenarios that participants will practise with EPTs in order to improve their skills.
     - In these role-plays, each participant will play the role of the health worker while the EPT will play the role of the patient.
     - At the end of the role-play the EPTs will provide feedback.
     - This is not a test. It is an exercise that offers benefits to participants' a tool to improve your learning and it should be fun! The feedback is meant to be non-judgmental and should be taken in a positive manner in order to build the skills of participants.
     - Ask participants if they have any questions about what they have learned at the skill station.

Chapter 4: How to diagnose TB in HIV-positive patients

Duration:
75 minutes

Materials:
IMAI acute care wall chart for cough, IMAI acute care module

Preparation:

Purpose: To build the capacity of participants to diagnose TB in HIV-positive patients

Learning objectives:
At the end of this session participants will be able to:

- Assess an HIV-infected patient for TB and understand how this differs from screening for TB in HIV-negative patients.
- Classify and treat patients with "cough" or "difficult breathing"
- Provide empirical treatment for severely ill patients with cough and/or difficult breathing when referral to a hospital is not possible.
- Respond correctly to sputum smear results in HIV-negative and HIV-positive patients.

Content	Methods	Duration
Symptoms of TB	Reading and discussion	10 min
Classify the patient with cough or difficult breathing	Reading, discussion, and case study	20 min
Respond to TB sputum results	Reading, discussion, exercises	15 min
Managing HIV-positive patient with severe pneumonia when referral is not possible	Reading, review using wall chart	30 min

1. Read the learning objectives aloud.
2. Have participants read the three cases (John, Julia, and Richard) at the beginning of the chapter. Tell the group that we will be discussing how to manage each case at the end of this chapter.
3. Explain to the group members that they should always send sputum samples for smear microscopy for all patients suspected of having TB disease. Emphasize that sputum smear microscopy should always be done, even if the patient does not have much cough.
4. Ask volunteers to read section 4.1 and 4.2.
5. Explain to the group how to classify the patient with cough or difficult breathing. Go quickly through the "ASK, LOOK AND LISTEN" column when a patient presents with cough and difficult breathing.
6. Take the group through the classification table for patients with cough or difficult breathing. Highlight the three classifications.
7. Point out health workers should recommend provider-initiated HIV testing and counselling both for those suspected of having TB and patients with TB disease.

8. Ask a volunteer to read section 4.3. Ask another volunteer to read the section under what to do in the case of HIV-positive patients with severe pneumonia or very severe disease when referral is not possible.

9. Ask a volunteer to read section 4.4; respond to TB sputum results. *Point out the difference between HIV-positive and HIV-negative patients. If two or more sputum smears are positive, the patient has smear positive pulmonary TB (has infectious TB). In an HIV-negative patient, if only one sputum smear is positive, the diagnosis is uncertain. However, in an HIV-positive patient if one sputum smear is positive, the patient has sputum smear positive pulmonary TB (has infectious TB).*

10. Explain to the group that if all sputum smears are negative and the patient is HIV-positive, the health worker should refer the patient to the district hospital for further investigation. Emphasize that HIV-positive patients are more likely to have smear negative pulmonary TB and extra-pulmonary TB. In both cases, the diagnosis should be made by a medical officer or doctor.

11. Ask participants to read the rest of the chapter and do Exercise 4-1 and 4-2.

Exercise 4-1: Case study

The health worker is about to close the clinic when a family arrives with Mugisha who is a very ill 34-year-old, very thin patient. Mugisha can only walk with assistance from two people. He is coughing frequently; and has been doing so for 2 months. He has some pain on the right side of the chest when coughing. He sweats at night. He does not smoke and his HIV status is not known. He has never had TB or been told that he has a heart or lung problem. This is the first time that he has difficulty breathing and such a bad cough.

On LOOK AND LISTEN, he is alert. He is breathing at 25 per minute and his pulse is 130 per minute. On a repeat count, he is breathing at 28 per minute. You cannot hear any wheezing and he is able to lie flat. Your BP cuff is not working. His temperature is 38^0C.

1. How would you classify the cough or difficult breathing? Would you recommend referral?

- **This patient has fast breathing (25/minute), fever (38^0C), and is not able to walk unaided. Classify him as severe pneumonia or very severe disease.**

2. You have HIV rapid test kits and know how to use them. How should you approach HIV testing and counselling in this patient (circle a, b, or c):

a) The patient is too sick for HIV testing and counselling. In case the result is positive, it is better to wait until he is stronger physically.

b) Recommend HIV testing and counselling on the spot. It is important for your clinical management decision. Give pre-test information and make sure someone stays in the clinic to help with post-test counselling.

c) Suggest that he go to the nearby VCT after you have seen him for his clinical problem.

Mugisha's family cannot take him to hospital and no other solution can be found. His HIV test is positive. He is very anxious that he would die.

3. What would you today to manage Mugisha? List all.

- **Send sputum for microscopy.**
- **Start treatment for bacterial pneumonia with IM antibiotics.**
- **Give cotrimoxazole - one double strength (960 mg) tablet or two single strength (480 mg) tablets three times per day for 21 days.**
- **Assess the patient three days later.**

After three full days of treatment, Mugisha's breathing rate is 32 and his temperature remains at 38^0C. There is still no way to get him to hospital and the family is even more reluctant because they think he is going to die. You try to call the medical officer at the hospital, but cannot find him.

4. What would you do to manage Mugisha today?

- **Start standard first-line TB treatment per the country guideline.**
- **Try to consult the medical officer if possible.**

Exercise 4-2: Short answers

Symptoms and signs	Classify	What to do?
A 35-year-old man with cough and chest pain for one week. Temperature 38°C and respiratory rate 30/min. Rapid HIV test is positive.	**Pneumonia**	**Start oral antibiotic, send sputum for microscopy, Follow up in two days**
A 23-year-old woman with cough and yellow sputum for one month. Respiratory rate 15/min; no fever. Rapid HIV test positive.	**Chronic lung problem**	**Send sputum for microscopy**
A 50-year-old man with cough, fever and chills for one week. Temperature 39.5°C, respiratory rate 40/min. Rapid HIV test positive.	**Severe pneumonia or severe disease**	**Give first dose of IM antibiotic, refer urgently to hospital, manage the patient if referral is not possible**
A 40-year-old woman with dry cough for one month, now has severe headache. She is lying in the waiting room and does not want to get up. She cannot walk without help. Respiratory rate 15/min. Rapid HIV test is positive.	**Chronic lung problem**	**Send sputums for microscopy, manage according to sputum test result**
A 24-year-old man with dry cough for three weeks. He has some pain in his chest when he takes a deep breath. When he came last time, you sent sputum samples for smear microscopy and they were all negative. Respiratory rate is 25/min. He is HIV-positive.	**Chronic lung problem**	**Repeat sputum smear microscopy. Refer if all the results are negative**
A 30-year-old woman, known to be HIV-positive. She is currently being treated for cryptococcal meningitis and has not started ART. She has been having night sweats for the past week, and now complains of cough and right-sided chest pain. Her respiratory rate is 18/min and her temperature is normal.	**Chronic lung problem**	**Send sputum for microscopy, refer to hospital**

Exercise 4-3: Short answers

Sputum results and serostatus	TB diagnosis or what should be done to reach a diagnosis
Two sputum samples positive. HIV status unknown.	**Smear positive pulmonary TB** **Recommend PITC**
One sputum sample is positive, one negative. HIV-positive	**Smear positive pulmonary TB**
All sputum smears are negative, patient responds to a non-specific antibiotic. HIV negative.	**Not TB** **Complete antibiotic**
All sputum smears are negative. HIV-positive.	**Diagnosis uncertain. Refer the patient to hospital**
All sputum smears are negative, patient is unable to walk. HIV-positive.	**Diagnosis uncertain. Refer the patient to hospital**

Ask the group to turn back to the beginning of this chapter. Ask a volunteer to read and discuss the next steps in managing the cases of John, Julia and Richard.

Exercise 4-4: Case studies

Cases	How to manage
John	• **Inform the patient about the HIV testing and counselling service in your clinic** • **Ask if John has some questions he would like clarified, confirm consent and do the test, or send him to the lab**
Julia	• **Check sputum smear microscopy**
Richard	• **Check sputum smear microscopy**

Chapter 5: What to do when TB disease develops in an HIV-positive patient

Duration:
60 minutes

Materials:
Flipchart, marker

Preparation:

Purpose: To build capacity to manage HIV-positive patients who have TB disease

Learning objectives:
At the end of this session participants will be able to:

- Specify the site and type of TB disease based on laboratory results
- Determine whether a TB patient can begin TB treatment immediately, or must be referred for evaluation and a TB Treatment Plan from the district clinician
- Determine TB treatment category
- Open a TB Treatment Card

Content	Methods	Duration
Patients who can be started on TB treatment at the health centre	Reading, Q and A	10 min
Determine TB category and type of TB patient	Reading Q and A	10 min
Decide on treatment category	Reading and Q and A	10 min
Open TB treatment card	Reading and Exercise	30 min

1. Read the learning objectives aloud to the participants.
2. Have participants read the three cases (John, Julia, and Mr. Richard) at the beginning of the chapter. Tell the group that you will be discussing how to manage each case at the end of this chapter.
3. Explain to the group that a person with HIV can develop TB disease at any time, including after they start on ART. Emphasize to the group that some of these patients need to be referred to the district doctor or medical officer before initiation of TB treatment.
4. Point out that if an HIV-positive person who is not on ART develops TB disease, TB treatment should be started immediately by any health worker. Explain that these patients are either in WHO clinical stage 3 or 4, and we will discuss their need for HIV care including ART in the next chapter.
5. Emphasize that if an HIV-positive patient is suspected of sputum smear negative pulmonary TB or extra-pulmonary TB, they should be referred to a medical officer or doctor to establish the diagnosis.
6. Ask a volunteer to read section 5.1. Explain anatomical sites for TB disease (*extra-pulmonary and pulmonary)*. Point out pulmonary TB patients can be sputum smear positive or negative.

7. Have the participants read about the type of TB patient on page 25 of the *TB Care with TB-HIV Co-management* guideline module.
8. Have the participants read about selecting the treatment category. Point out that the treatment category for HIV-positive and negative patient is the same.
9. Emphasize that HIV-positive patients can die of TB very rapidly if treatment is delayed.
10. Do exercise 5-1.
11. Explain that if an HIV-positive patient develops TB while on ART, the patient should be referred to a medical officer or doctor for further decision. Emphasize that these patients might have Immune Reconstitution Syndrome (IRS), or have developed resistance to ART.
12. Ask the group members what they know about IRS. Point out that it is a transient worsening of the patient's condition due to the restoration of the immune function. Emphasize that it often occurs within few weeks after initiation of ART. Point out that TB is a common presentation of IRS.
13. Emphasize that TB can also be an indication of developing resistance to ART. Point out that this often happens after the patient has taken ART for some months or years.
14. Summarize on the flipchart that the following HIV-positive patients need to be seen by the doctor or medical officer:
    - Suspected sputum negative pulmonary TB
    - Suspected extra-pulmonary TB
    - Development of TB disease while on ART.
15. Ask participants to do exercises 5-2 and 5-3, and discuss in plenary.

Exercise 5-1: Short answers

1. Your patient has been coughing for three weeks. All three of the sputum samples are positive.
   - **a. Smear positive pulmonary TB**
   - b. Smear negative pulmonary TB
   - c. Extra-pulmonary TB

2. You ask a patient to submit three sputum samples to the laboratory for examination and recommend that she takes HIV testing and counselling. The HIV test is positive and one of the sputum samples is positive.
   - **a. Smear positive pulmonary TB**
   - b. Smear negative pulmonary TB
   - c. Extra-pulmonary TB

3. You referred a patient who is smear negative to the hospital. When she comes back, she says that the doctor told her the chest x-ray indicates that she has TB, and she should start TB treatment immediately.
   - a. Smear positive pulmonary TB
   - **b. Smear negative pulmonary TB**
   - c. Extra-pulmonary TB

4. You send a patient to the hospital because of severe weight loss and fever. Several weeks later the patient was discharged and went back home. Reading the hospital records, you see that the patient was diagnosed with "TB meningitis."
   - a. Smear-positive pulmonary TB
   - b. Smear negative pulmonary TB
   - **c. Extra-pulmonary TB**

Exercise 5-2: Short answers

Ask the group to read the case description, and write down the patient's classifications (e.g. type of TB, type of TB patient, HIV serostatus). Instruct them to indicate whether the patient should be referred to a medical officer for evaluation and a treatment plan, or whether group members can initiate TB treatment. Also ask them to specify the TB treatment category.

Case	Classifications	Refer or Initiate treatment? Treatment Category
Your patient is referred from the hospital after a diagnosis of smear negative pulmonary TB, based on suggestive chest x-ray result. Sputum examination is negative. Has never received anti-TB treatment before, and is HIV-positive.	**Smear negative pulmonary TB HIV-positive**	**New, CAT I Initiate TB treatment and cotrimoxazole prophylaxis Assess for ART eligibility and manage accordingly**
Patient with smear positive sputums. Started TB treatment six months ago, but stopped after two months because he was feeling better. HIV-negative.	**Smear positive pulmonary TB HIV-negative**	**Treatment after default CAT II Refer to hospital**
Patient diagnosed with TB meningitis. Has never received anti-TB treatment before. HIV-positive.	**Extra-pulmonary TB HIV-positive**	**New, CAT I Initiate TB treatment Refer to hospital**
Patient is referred from the hospital with a diagnosis of lymph node TB in the neck following smear positive needle aspiration result. She has never received anti-TB treatment before. HIV-negative.	**Extra-pulmonary TB HIV-negative**	**New, CAT I, Initiate TB treatment**
Patient in sixth month of Category I treatment, sputum smear positive. HIV-positive.	**Smear positive pulmonary TB HIV-positive**	**Treatment after failure CAT II, Refer**
Patient with smear positive sputums. Treated last year for TB and has been fine since he completed treatment. HIV-positive.	**Smear positive pulmonary TB HIV-positive**	**Relapse CAT II, refer**

Exercise 5-3: Case studies

Select the correct treatment category for three patients. Refer to the *TB care with TB-HIV Co-management* guideline module while doing the exercises. This will assist you in learning how to refer use of the guideline module to others and also become comfortable using it.

Read the information given and review the results on the patient's *Request for Sputum Examination* form.

1. Janu comes to your clinic with one-month history of cough, fever, and weight loss. He was tested for HIV a year ago before his wedding. He is HIV-positive, but is not receiving any form of HIV care and does not know about HIV care services. Janu has never been treated for TB in the past. You sent samples to sputum smear microscopy and today Janu came back with the form below from the laboratory.

Request for Sputum Smear Microscopy Examination

Referring facility Cohan Heretes Cuthe Date 10/10/01
Name of patient Janu Nair Age 56 Sex: ☒ M ☐ F
Complete address 45 College Street, Aruna

Reason for sputum smear microscopy examination:
☒ Diagnosis

OR ☐ Follow-up Number of month of treatment: _____ BMU TB Register No. _____

Name and signature of person requesting examination Samira

RESULTS

Laboratory Serial No. 653/01

Date collected	Sputum Specimen	Visual appearance	RESULTS NEG	(1-9)	(+)	(++)	(+++)
12/01/01	1	Mucopurulent	✓				
13/01/01	2					✓	

Examined by Robert Mutachi
Date 13/01/01 Signature

a) What is the TB disease site? Pulmonary ❑ Extra-pulmonary ❑

b) What type of patient is he? New ❑ Transfer in ❑ Treatment after default ❑ Relapse ❑ Treatment after failure ❑ Other ❑

c) What category of treatment is needed? **CAT I**

d) In which WHO HIV clinical stage is Janu? **Stage 3**

2. Mamush comes to the clinic because he has fever, weight loss, and occasional cough. He was at the clinic two weeks ago and was given amoxicillin. Today he is back because the fever and cough did not go away. Mamush has never been tested for HIV or TB in the past. You sent him to the laboratory for sputum smear microscopy and rapid HIV test. He is HIV-positive and below is his sputum test result as reported by the laboratory.

Request for Sputum Smear Microscopy Examination

Referring facility Cohun Health Center Date 21/08/01

Name of patient Mamush Mulugeta Age 25 Sex: ☒ M ☐ F

Complete address 131 Long Street, Aruna Marduk

Reason for sputum smear microscopy examination:

☒ Diagnosis

OR ☐ Follow-up Number of month of treatment: _____ BMU TB Register No. _____

Name and signature of person requesting examination Asefaf Basta

RESULTS

Laboratory Serial No. 489/01

Date collected	Sputum Specimen	Visual appearance	RESULTS				
			NEG	(1-9)	(+)	(++)	(+++)
21/08/01	1	Mucoid			✓		
29/08/01	2					✓	

Examined by Lily Tobia

Date 22/08/01 Signature

a) What is the TB disease site? Pulmonary ❑ Extra-pulmonary ❑

b) What type of patient is he? New ❑ Transfer in ❑ Treatment after default ❑ Relapse ❑ Treatment after failure ❑ Other ❑

c) What category of TB treatment is needed? **CAT I**

d) In which WHO HIV clinical stage is Mamush? **Stage 3**

3. Raj comes to your clinic because he has had cough with bloodstained sputum, fever and weight loss for the past month. Raj is HIV-positive and enrolled in a chronic HIV care clinic. He has regular follow-up there, but he is not receiving any treatment. He has never been treated for TB in the past. Below is his sputum test result from the laboratory.

Request for Sputum Smear Microscopy Examination

Referring facility Cohan Health Centre Date 28/08/01

Name of patient Raj Makena Age 28 Sex: ☒ M ☐ F

Complete address 11 Market place, Aruna Marduk

Reason for sputum smear microscopy examination:

☒ Diagnosis

OR ☐ Follow-up Number of month of treatment: ____ BMU TB Register No. _____

Name and signature of person requesting examination Misya

RESULTS

Laboratory Serial No. 560/01

Date collected	Sputum Specimen	Visual appearance	RESULTS				
			NEG	(1-9)	(+)	(++)	(+++)
28/08/01	1	Blood Stained				✓	
29/08/01	2					✓	

Examined by Robert Mutachi

Date 29/08/01 Signature

a) What is the TB disease site? Pulmonary ■ Extra-pulmonary ❑

b) What type of patient is he? New ■ Transfer in ❑ Treatment after default ❑ Relapse ❑ Treatment after failure ❑ Other ❑

c) What category of TB treatment is needed? **CAT I**

d) In which WHO HIV clinical stage is Raj? **Stage 3**

Exercise 5-4: Case studies

Ask the group to turn back to the beginning of this chapter. Then ask the members to read the cases and discuss the next steps in managing the cases of John, Julia and Richard.

Cases	How to manage
John	• **Start CAT I TB treatment** • **Check HIV test result**
Julia	• **Continue with TB treatment and cotrimoxazole prophylaxis** • **Julia is either in WHO HIV Clinical stage 3 or 4. Do CD4 count if available. If CD4 count is not available, reassess Julia while she is on TB treatment**
Richard	• **Richard should be referred to the doctor because he developed TB while on ART**

Chapter 6: What to do when TB patient is found to be HIV-positive

Duration:
35 minutes

Materials:
Sequence of care after positive HIV test and WHO HIV clinical staging wall chart

Preparation:

Purpose: To ensure provision of HIV care to TB-HIV patients

Learning objectives:
At the end of this session participants will be able to:

- Provide chronic HIV care to TB-HIV patients
- Initiate cotrimoxazole prophylaxis in HIV-positive patients with TB disease

Content	Methods	Duration
Review sequence of care after positive HIV test	Reading, Q and Q	25 min
Initiate cotrimoxazole prophylaxis	Reading, Q and A	10 min

1. Read the learning objectives aloud to the participants.
2. Have participants read the three cases (John, Julia, and Mr. Richard) at the beginning of the chapter. Tell the group that you will be discussing how to manage each case at the end of this chapter.
3. Have the group study the poster with the sequence of care after positive HIV test result. Review the steps quickly as a reminder from their Chronic HIV Care with ART and Prevention training.
4. Ask volunteers to read the steps from their Participant Manual.
5. Do exercise 6-1 and 6-2.

Exercise 6-1: Short answers

Ask the group to fill in the TB disease site and the HIV clinical stage for each of these HIV-positive patients in the appropriate column.

Known HIV-positive patient	**TB disease site—for treatment purposes (pulmonary or extra-pulmonary TB)**	**HIV clinical stage**
You have been following Mary who is in HIV clinical stage 2. She had herpes zoster a while ago. Now she has come to the clinic with cough of three weeks and fever. Two of the three sputums smear microscopy have come back positive. Your clinical review shows no other clinical findings except the scar from the herpes zoster.	**Sputum positive pulmonary TB**	**3**
Ahmed has been in HIV care for two years taking cotrimoxazole regularly; he was in clinical stage 2 during his last visit. He has been coughing for the last month; all sputums came back negative and you referred him to the district doctor. He comes back on TB treatment with the diagnosis "smear negative TB". There are no other clinical signs or diagnoses by the doctor.	**Smear negative pulmonary TB**	**3**
John comes to the chronic HIV clinic with a large three cm lymph node in his neck. You send him to the hospital, where a needle aspirate showed TB.	**Extra-pulmonary TB**	**3**
Kim comes to the acute care clinic complaining of leg weakness and fevers. You do an HIV test and it is positive. You send her to the hospital and several weeks later she comes back on TB treatment with the diagnosis "Pott's Disease".	**Extra-pulmonary TB**	**4**
A new patient comes to the acute care clinic complaining of having headaches and cough for the last three weeks. You send two sputums for smear microscopy and send the patient to the hospital where she is diagnosed with TB meningitis. Later you hear from the laboratory technician that both sputums were positive.	**Smear positive pulmonary TB Point out that this patient has both pulmonary and extra-pulmonary TB.**	**4**

Which of the above patients should be started on cotrimoxazole for prophylaxis? Why?

- **All of these patients should be started on cotrimoxazole prophylaxis to prevent other opportunistic infections.**

Exercise 6-2: Case studies

Ask the group to turn back to the beginning of this chapter. Ask the members to read the cases and discuss the next steps in managing the cases of John, Julia and Richard.

Cases	How to manage
	• **Start John on cotrimoxazole prophylaxis** • **Point out to the group that HIV is often a family illness. The health worker should always recommend HIV testing and counselling for the partner and children of the patient** • **John's wife and child should also be screened for TB, as John has sputum positive pulmonary TB** • **Enrol John's wife and child in chronic HIV care clinic, if they tested positive for HIV**

Chapter 7: Does your TB-HIV patient need ART?

Duration:
2.75 hrs

Materials:
TB and HIV care/ART treatment cards

Preparation:

Trained EPTs, check lists, cards for sorting

Purpose: To build capacity for TB-ART co-treatment

Learning objectives:
At the end of this session participants will be able to:

- Decide whether and when to refer a TB-HIV patient for a decision on ART (TB-ART co-treatment plan) after starting TB treatment.
- Fill out TB treatment card and HIV care/ART card

Content	Methods	Duration
Reassess the clinical stage of HIV-positive TB patients	Reading, discussion, exercises	15 min
Decide when to refer an HIV-positive patient for TB-ART co-treatment plan	Reading, discussion, exercises	20 min
Special adherence consideration for TB-HIV patients	Reading, discussion, exercises	20 min
Fill out TB treatment card and HIV care/ART card	Reading, discussion, exercises	20 min
Skill station	Card sorts and EPTs	2 hrs

1. Read the learning objectives aloud.
2. Have participants read the three cases (John, Julia, and Richard) at the beginning of the chapter. Tell the group that you will be discussing how to manage each case at the end of this chapter.
3. Ask a volunteer to read section 7.1. Point out that the HIV clinical stage of positive patients should be reassessed at each visit (*This is important as it can change, and new clinical conditions can determine the eligibility of the patient for ART).*
4. Explain to the group that the most important immediate decision for any TB patient is related to starting TB treatment. Point out that HIV-positive patients who are not yet on ART can start TB treatment immediately, to be administered by any health worker. Explain that starting ART is not an emergency.
5. Ask a volunteer to read section 7.2. Explain that HIV-positive patients with TB disease are either in WHO HIV clinical stage 3 or 4.
6. Do exercises 7-1 and 7-2

Exercise 7-1: Short answers

Ask the group to write the points of a treatment plan for each case. Explain that they should assume that the CD4 count is not available in the following cases:

Case	Treatment Plan
A patient in HIV care, clinical stage 2, on cotrimoxazole prophylaxis develops cough and fever. His sputum smear is positive. He has had no previous TB or ART treatment and shows no other signs of clinical stage 3 or 4 conditions.	**CAT I TB treatment** **Start cotrimoxazole prophylaxis** **Reassess the patient at the end of initial phase of TB treatment for ART eligibility**
The above same patient comes back for follow up assessment in two weeks and is feeling a little better.	**Continue the TB treatment and cotrimoxazole prophylaxis. Reassess after completion of the initial phase for ART eligibility**
A patient comes to the clinic with cough and fever. Sputum smears are positive. He was previously treated for TB at your health centre last year. He also started on ART at that time, but then stopped taking it. He has no other symptoms.	**CAT II Relapse** **Refer now to medical officer or doctor for TB-ART co-treatment plan** **Patient need adherence preparation, monitoring, and support**
A patient was diagnosed with smear positive pulmonary TB and HIV at the same time. She has oral thrush. She says she has persistent diarrhoea for more than a month and has lost weight.	**CAT I TB treatment** **cotrimoxazole prophylaxis** **Give nystatin or miconazole patch or clotrimazole** **Refer now for TB-ART co-treatment plan**
A patient comes to the clinic saying he was diagnosed and treated for TB meningitis in the hospital for two months, and was discharged yesterday with instructions to continue TB treatment at the health centre. He has never had an HIV test. You recommend one and it is positive.	**Continue CAT I TB treatment** **Cotrimoxazole prophylaxis** **Refer now for TB-ART co-treatment plan (this patient is in WHO HIV clinical stage 4)**

Assume that the CD4 count is available in the following cases:

Case	Treatment Plan
An HIV-positive patient is currently in month two of Category I treatment and is doing well. Her CD4 count is 75.	**Continue TB treatment** **Start cotrimoxazole prophylaxis, if not already done** **Refer now to the medical officer or doctor for TB-ART co-treatment plan**
A patient is in HIV Care, but not on ART, is in clinical stage 2 and has a CD4 count of 250. Diagnosed with smear negative pulmonary TB and started on Category II. The patient has no other stage 3 or 4 clinical conditions.	**Continue TB treatment** **Start cotrimoxazole prophylaxis, if not already done** **Refer to medical officer or doctor after completion of initial phase of TB treatment for TB-ART co-treatment plan**
A patient is in chronic HIV Care, not on ART, has a CD4 count of 400 and is in clinical stage 3. No other stage 3 or 4 clinical condition. Currently in first month of Category I treatment for sputum positive pulmonary TB.	**Continue TB treatment** **Start cotrimoxazole prophylaxis, if not already done** **Reassess the patient while on TB treatment.** **Refer to medical officer or doctor for ART at the end of TB treatment, if patient improves (e.g. gains weight while on TB treatment)**
A patient is diagnosed with lymph node TB and HIV at the same time and is currently on Category I treatment. He has oral thrush and persistent diarrhoea. His CD4 count is 300.	**Continue TB treatment** **Start cotrimoxazole prophylaxis, if not already done** **Give nystatin or miconazole patch or clotrimazole (refer *IMAI acute care guideline* module)** **Refer now for TB-ART co-treatment to the MO or doctor**

Exercise 7-2: Case studies

Ask the group to turn back to the beginning of this chapter. Ask the members to read the cases and write the next steps in managing the cases of John and Julia. Discuss in a plenary session afterwards.

Cases	How to manage
	• **Continue on TB treatment and cotrimoxazole prophylaxis** • **Initiate adherence counselling preparation** • **Discuss with the group why John is eligible for ART**
	• **Julia has sputum negative pulmonary TB** • **Continue the TB treatment and cotrimoxazole prophylaxis**

Exercise 7-3: Drill exercise

Ask participants to show the appropriate card after you read the cases for the group.

What will you do in the following cases?	
Cases	**You will**
A patient has had cough, fever and weight loss for one month. He is HIV-positive and sputums smear results are negative.	**REFER now (Explain that the MO/MD need to evaluate this patient for smear negative pulmonary TB, extra pulmonary TB)**
A patient was treated last week with amoxicillin for non-severe pneumonia. Today he came to the clinic because he still has cough and fever. He is HIV-positive and today one of his sputum smear microscopy is positive. His CD4 count is 150.	**Start TB treatment and cotrimoxazole prophylaxis** **REFER now for TB-ART co-treatment plan**
A patient has fever, weight loss and occasional cough. He is HIV-positive and has been on ART for the past three months. All his sputums smear microscopy are positive.	**REFER now for TB-ART co-treatment plan (explain that the health worker at first facility should not start the TB treatment without consulting the MO/MD)** **This patient most likely has IRS**
A patient has cough and weight loss. One sputum is positive for AFB. He has been on ART for the past year.	**REFER now** **This could be ART failure (the MO/MD need to evaluate for ART failure, decide the TB-ART co-treatment plan, and initiate ART-TB co-treatment)**
A known HIV-positive patient comes to the clinic because he has had cough, fever, and weight loss for three weeks. He has no other stage 3 or 4 clinical conditions. He is not on ART. His sputums smear microscopy are positive. His CD4 count is not available	**Start TB treatment and cotrimoxazole prophylaxis** **REFER for TB-ART co-treatment plan at the end of initial phase of TB treatment**
An HIV-positive patient comes to your clinic after being transferred from the hospital. You checked the record that explains the patient has smear negative pulmonary TB and has started TB treatment. The record also shows that she is not eligible for ART and has started on cotrimoxazole prophylaxis.	**Continue TB treatment and cotrimoxazole prophylaxis** **REASSESS the patient for ART eligibility while on TB treatment**
A patient comes to the clinic because he has chronic fever, weight loss and cough. His sputums smear microscopy are positive for AFB, and his CD4 count is 90.	**Start TB treatment and cotrimoxazole prophylaxis.** **REFER now for TB-ART co-treatment plan.**

Skill station 2:

- **Card Sort**
- **EPTs**

The purpose of this skill station is build the knowledge and skill of participants to:

- Review HIV clinical staging
- Review ARV, cotrimoxazole and TB drug side effects
- Clinically assess TB- HIV co-infected patients
- Recommend laboratory investigation into the TB disease of HIV-positive patients and interpret results
- Recommend TB treatment and TB-ART co-treatment for HIV-positive patients with TB disease.

1. **Card sort:** Use cases in the annexes to review HIV clinical staging and drug side effects

2. **EPT cases:** Use the EPT cases in the annexes to reinforce learning by providing direct practise. The PLHIV Expert Patient Trainer presents a case, then provides feedback to the health worker.

Chapter 8: How to co-manage TB and HIV

Duration:
55 minutes

Materials:
Flipchart and marker

Preparation:

Purpose: To understand TB-HIV co-treatment

Learning objectives:
At the end of this session participants will be able to:

- Inform patients and their treatment supporters about issues relating to TB-HIV co-treatment
- Clinically monitor, fill out records, and provide support for patients on TB-ART co-treatment (prescribed and supervised by a medical officer/doctor)
- After finishing TB treatment, effectively ensure the transition of the patient to chronic HIV care

Content	Methods	Duration
Educate the patient and treatment supporter	Reading and discussion	15 min
Support the patient throughout the entire period of TB treatment	Reading and discussion	10 min
Monitor TB treatment, HIV disease and treatment	Review, Q and A	20 min
Support continuation of HIV care after TB treatment	Discussion	10 min

1. Read the learning objectives aloud to the participants.
2. Have participants read the three cases (John, Julia, and Richard) at the beginning of the chapter. Tell the group that you will be discussing how to manage each case at the end of this chapter.
3. Ask volunteers to read section 8.1. Emphasize the importance of appointing a treatment supporter.
4. Ask a volunteer to read through section 8.10 of the *Chronic HIV Care with ARV Therapy and Prevention* guideline model. Point out that patients might need support when they disclose their HIV status and start TB treatment. Review briefly some of the benefits and inconveniences of disclosure of HIV status.
5. Emphasize that the health worker should provide support throughout the entire period of TB treatment, not only at the time of diagnosis. The health worker should also monitor TB treatment or TB-ART co-treatment, and should do clinical review for any progression of HIV infection.

Exercise 8-1: Case study

Ask the group to write the answer to the following questions individually, and we will go through the responses after that.

Yacob Haile:

The TB Treatment Card for Yacob Haile is annexed to this document. Today is 20 July 2007. Study his treatment card and answer the following questions.

1. What category of TB treatment is he taking? Why?
    - **CAT I, He is a newly diagnosed TB patients, filled in the card as CAT I patient, is receiving RHZE**

2. What is his HIV status?
    - **He is HIV-positive**

3. Has he started on ART? Why do you think he has not?
    - **Yacob has not yet started on ART. His CD4 count is 400**

4. What drug is Yacob taking in addition to his TB treatment? What is the benefit of Yacob taking this drug?
    - **He is also taking cotrimoxazole prophylaxis in order to prevent other common opportunistic infections**

5. When is this patient's next follow-up sputum smear examination due?
    - **At the end of 2nd month of TB treatment.**

6. On approximately what date should the health worker collect sputum from this patient?
    - **7 May, 2007**
7. Ten days have passed and it is now 30 July. Yacob has come for his TB treatment and also to learn about the sputum examination results. His sputum smear results, dated 26 July 2007, lab number 1798, were negative. His weight today is 48 kg. Record this information on Yacob's TB Treatment Card. **Indicate where they should record the weight on the card**

8. What is the implication of the negative smear results? How long must Yacob continue taking the anti-TB drugs?
    - **Yacob is responding to the TB treatment. His TB treatment is an 8-month regimen.**

9. When will Yacob have the next follow-up sputum smear? Why is it important for him to have another sputum smear examination?
    - **At the end of 6th month of TB treatment.**

10. What are the next steps in Yacob's HIV care?
    - **Yacob needs to be reassessed for ART eligibility, both during and at completion of TB treatment . When he completes the TB treatment, the health worker should arrange, ensure and transfer Yacob for him to continue receiving chronic HIV care.**

Exercise 8-2: Short answers

For each of the following side effects, fill out the possible cause, what to do, and when to consult a medical officer or doctor.

Side effect	Possible cause	What do to	When to consult or refer to a medical officer or doctor
Headache	**AZT** **EFV**	**Assess the patient for other underlying reasons**	**If the headache persists**
Orange/red urine	**Rifampicin**	**Reassure the patient**	**No**
Burning sensation in feet	**INH** **d4T**	**Give pyridoxine 100 mg daily** **If on d4T, substitute with AZT**	**No response**
Jaundice (yellow skin or eyes)	**Nevirapine** **Pyrazinamide**	**Stop all ART, cotrimoxazole and anti-TB drugs**	**Refer urgently**
Pallor: anaemia	**AZT** **Cotrimoxazole**	**Determine Hgb**	**If Hgb is less than 8 gm, substitute AZT with d4T,** **also discontinue cotrimoxazole**
Difficulty with vision	**Ethambutol**	**Stop ethambutol**	**Refer**

Exercise 8-3: Case studies

Ask the group to turn back to the beginning of this chapter. Ask the members to read the cases and write the next steps in managing the cases of John, Julia, and Richard. Discuss in a plenary session afterwards.

Cases	How to manage
John	• **Point out that excluding active TB is essential before starting IPT** • **Review the dose of INH for prophylaxis to be given to John's child**
Julia	• **Reassess Julia, exclude meningitis (Refer to pp 46-47 of the *IMAI Acute Care* guideline module)** • **If there are no any other findings, give paracetamol or other non-steroidal anti-inflammatory drugs**
Richard	• **Nausea and vomiting is most often related to drug side effects** • **Give isoniazid at bedtime**

Chapter 9: Special care and testing for newborns, partners and other household contacts

Duration:
20 minutes

Materials:

Preparation:

Purpose: To build the skill of participants to provide special care and recommend HIV testing and counselling to newborns, partners and household contacts of TB patients

Learning objectives:
At the end of this session participants will be able to:

- Determine eligibility for IPT and BCG immunization for household contacts of TB patients.

Content	Methods	Duration
Give Isoniazid prophylaxis therapy	Reading, discussion	10 min
Recommend HIV testing and counselling for partner(s) and children	Reading and discussion	10 min

1. Read the learning objectives aloud to the participants.
2. Ask a volunteer to read through section 9.1. Point out that Isoniazid prophylaxis can only be administered after excluding active TB. The health worker should first make sure that the patient does not have active TB.
3. Emphasize that the health worker should also recommend HIV testing and counselling for partners and children of HIV-positive TB patients.

Annex I: Summary of skill station activities

Day	EPT Cases	Card Sorts	Video show	Topics to be Covered
1 **(2 hours for each group)**	EPT cases # 1-4	No card Sorts	Video cases	• Recommending HIV testing to TB patients and those suspected of having TB
2 **(2 hours for each group)**	EPT cases # 5-12	Card Sorts	No Video show	• Determining TB status • Reviewing HIV clinical staging • Reviewing ARV, co-trimoxazole and TB drug side effects and respond to drug side effect • Assessing TB- HIV co-infected patients • Recommending TB treatment, TB-ART co-treatment for HIV-positive patients with TB disease.

Annex II: Skill station materials for photocopying

Day 2 - Skill Station Card sorts- copy these in colour

a) Cards for <u>Clinical review and staging in TB-HIV patients.</u>

b) Determine eligibility for ART

Write stage 1, 2, 3, 4 **Eligible for ART, Not eligible for ART** **Start ART immediately** **Start ART at the end of initial phase of TB treatment** **Consider ART at the end of TB treatment**		
Smear positive TB patient, no other findings, CD4 180	**TB-meningitis with zoster, CD4 400**	**Smear negative Pulmonary TB, oral thrush and fungal nail infection, CD4 50**
Completed treatment for smear negative pulmonary TB 2 months back and has genital herpes with ulceration for the last 6 weeks, CD4 400	**HIV-positive pregnant, TB lymphadenopathy, CD4 300**	**HIV-positive pregnant woman, recurrent mouth ulcers, TB lymphadenitis, CD4 300**
TB lymphadenopathy, CD4 250	**Hospitalized with bacterial pneumonia, CD4 400**	**Bone TB, CD4 500**
Hospitalized with TB pericarditis, CD4 50	**TB pericarditis,** **CD4 20**	**Smear positive pulmonary TB, and Kaposi sarcoma,** **CD4 100**

Patient has headache, fever and double vision and is diagnosed with TB meningitis. CD4 not available	**Patient chronic diarrhea, chronic fever and oral hairy leukoplakia, smear negative pulmonary TB, CD4 not available**	**The patient has recurrent ear infections, smear positive pulmonary TB, CD4 not available**
Smear negative pulmonary TB, no other findings, CD4 not available	**Smear positive pulmonary TB, CD4 is not available and 4 weeks of diarrhoea despite treatment**	**Smear negative pulmonary TB, Very bad gingivitis with small ulcers, CD4 is not available**
TB lymphadenitis, no other findings, CD4 not available	**3 episodes bacterial pneumonia in last 6 months, currently smear negative pulmonary TB**	**Hospitalized earlier this year with cryptococcal meningitis**
Smear positive pulmonary TB and Oesophageal thrush	**Smear positive pulmonary TB and Recurrent sinusitis, CD4 not available**	**TB meningitis and herpes zoster, CD4 not available**
Smear positive pulmonary TB, Kaposi sarcoma CD4 20	**Smear positive pulmonary TB, responding to TB treatment and gaining weight, CD4 not available**	**TB lymphadenitis, herpes zoster, no other findings. CD4 count not available**

Day 2: Card sort for drug side effects

Write INH, Rifampicin, Ethambutol, Streptomycin, D4T, AZT, EFV, NVP, Cotrimoxazole on flipchart. Ask participants to stick the right side effect card to the corresponding drug		
Burning sensation of the feet	**Anaemia**	**Fixed skin rash**
Jaundice	**Severe skin rush and fever**	**Joint pain**
Red discoloration of urine	**Dizziness, lack of balance**	**Nightmare**
Pallor	**Headache**	**Nausea**
Muscle pain	**Blue/black nails**	**Vomiting**

Annex III: EPT cases

Case No. 1

You are a 23-year-old male teacher who was seen in the OPD last week with symptoms of cough/fever which you have had for two weeks. You left sputum specimens, and now you are here with the results.

If asked:

- Cough is dry, non-productive—often prevents sleeping.
- You have had fever/sweating for two weeks, sometimes at night.
- You are not sure if you have lost weight, but think that you may have.
- You have never had an HIV test.
- You have never been screened or treated for TB.
- No one in your family is ill, but often your students have been ill.
- You admit to multiple sexual partners in the past without condom use. You are single.

(Tear off and give to care provider)

Physical Exam

- Thin young man not in acute distress
- Scattered shotty palpable, non-tender lymph nodes

Lab Results: Two of three sputums positive for AFB, Rapid HIV test positive

Case No. 1 **EPT:** **Health worker:**	**Good**	**OK**	**Not Good**	**Not Done**
GENERAL • Respectful • Used simple words • Listened to patient • Made sure patient understood				
ASSESS • Asked why came to the clinic? • Reviewed symptoms • Reviewed past medical history • Look: physical exam				
ADVISE • About what HIV and TB are • Used visual aids (Flipchart, drawings) • About options for treatment • About importance of adherence • Talked about prevention (both TB and HIV)				
AGREE • On treatment plan • On patient role in care				
ASSIST • To address treatment needs • With strategies for adherence • With disclosure as needed				
ARRANGE • Necessary testing or treatment for today • Follow-up or referral (date and place) • Screening of family members for TB, provide BCG, prophylaxis as needed • Completed TB Card as needed • Discussed HIV testing for partner and children • Complete HIV Care/ART Card as needed				
CASE-SPECIFIC QUESTIONS • Asked about symptoms of TB? • Explained diagnosis of TB and availability of treatment? • Asked about risk of HIV? (sexual risk: multiple partners, unprotected sex, etc.). • Asked history of HIV test in the past? • Recommended HIV test? • Explained benefits of knowing HIV status? • Explained HIV test is available and its procedure? • Discussed importance of HIV status disclosure? • Explained importance of treatment adherence? • Arranged DOT? • Patient correctly classified as WHO clinical stage 3? • Recommended cotrimoxazole prophylaxis				

Case No. 2

You are a 25-year-old young woman who was released from the hospital one week ago. You are on medications you were told are to treat TB pneumonia. You are here for a follow-up visit.

If asked:

- Before this stay in the hospital, you had never been tested or treated for TB.
- You are currently taking several different types of tablets every day.
- Your urine is red, but you were told by your doctor that the tablets cause this redness.
- You are doing well on your medications, your cough is better and you have no fever.
- You have never had an HIV test.
- You live with your spouse, your in-laws and two children.
- Before marriage you did not have other sexual partners. You think that your spouse may have, but you do not know whether he has others now.

(Tear off and give to care provider)

Physical Exam

- Thin, with shotty cervical lymph nodes.

Lab result: Rapid HIV test positive

Case No. 2 **EPT:** **Health worker:**	**Good**	**OK**	**Not Good**	**Not Done**
GENERAL • Respectful • Used simple words • Listened to patient • Made sure patient understood				
ASSESS • Asked why came to the clinic? • Reviewed symptoms • Reviewed past medical history • Look: physical exam				
ADVISE • About what HIV and TB are • Used visual aids (Flipchart, drawings) • About options for treatment • About importance of adherence • Talked about prevention (both TB and HIV)				
AGREE • On treatment plan • On patient role in care				
ASSIST • To solve treatment needs • With strategies for adherence • With disclosure to family as needed				
ARRANGE • Necessary testing or treatment for today • Follow-up or referral (date and place) • Screening of family members for TB, provide BCG, prophylaxis as needed • Complete TB Card as needed • Recommended HIV test for partners and children as needed • Completed HIV Care/ART Card as needed				
CASE-SPECIFIC QUESTIONS • Correctly identified that you are Category I for TB? • Asked about side effects of medication (yellow eyes, vomiting, abdominal pain) and alcohol use? • Explained the relationship between HIV and TB? • Discussed the benefits of HIV test? • Identified risk of HIV infection? • Explained how HIV test works? • Discussed confidentiality of HIV test results? • Explained that HIV treatment is available? • Recommended HIV test ? • Patient is classified as WHO clinical stage 3? • Recommended cotrimoxazole for prophylaxis? • Explained that household contacts should be screened for TB, given BCG, placed on prophylaxis?				

Case No. 3

You were recently discharged from the hospital and are doing well on TB medications you have been taking for two weeks.

If asked

- You were in the hospital for hip pain which is improving on your medications.
- While you were in the hospital you agreed to an HIV test which was positive.
- No one has spoken to you about HIV treatment yet.
- You have not disclosed your HIV status to your spouse or family yet.
- You are taking four medications every day because they are making you feel better and gain weight. Your urine is bright orange from the medicine.

(Tear off and give to care provider)

Physical Exam (Tear off and give to care provider)

- Very thin
- No respiratory symptoms
- Mild hip tenderness, no drainage

Hospital Records:

- “Pott’s Disease”
- Three Sputum negative for AFB
- HIV-positive

Case No. 3 **EPT:** **Health worker:**	**Good**	**OK**	**Not Good**	**Not Done**
GENERAL • Respectful • Used simple words • Listened to patient • Made sure patient understood				
ASSESS • Asked why came to the clinic? • Reviewed symptoms? • Reviewed past medical history • Look: physical exam				
ADVISE • About what HIV and TB are • Used visual aids (Flipchart, drawings) • About options for treatment • About importance of adherence • Talked about prevention (both for TB and HIV)				
AGREE • On treatment plan • On patient role in care				
ASSIST • To solve treatment needs • With strategies for adherence • With disclosure to family as needed				
ARRANGE • **Necessary testing or treatment for today** • Follow-up or referral (date and place) • Screening of family members for TB, provide BCG, prophylaxis as needed • Complete TB Card as needed • Screen contacts for HIV as needed • Complete HIV Care/ART Card as needed				
CASE-SPECIFIC QUESTIONS • Correctly identified that you are on Category I TB treatment (on TB Card)? • Asked about side effects of medication (yellow eyes, vomiting, abdominal pain) and alcohol use? • Explained household contacts should be screened for TB, given BCG, placed on prophylaxis as needed? • Explained about HIV and Opportunistic Infections (OIs) and recommended cotrimoxazole prophylaxis? • Explained about treatment for HIV? • Counselled regarding adherence, arranged Directly Observed Therapy, Short course (DOTS) support if available? • Patient correctly classified as WHO clinical stage 4? • Arranged immediate referral for HIV care/ART? • Ordered tests (Hgb, liver function tests and CD4 count, if available) to prepare for ART? • Recommended HIV testing for partner and children? • Advised on importance of HIV disclosure to someone who can offer adherence support? • Made appointment for follow-up here after starting ART and in two months for TB follow up?				

Case No. 4

You are a 28-year-old woman and have come to the clinic with a complaint of cough that you have had for three months. You gave a sputum sample last week in the OPD.

If asked:

- Chest hurts
- Sputum is greenish and sometimes bloody.
- Weak, tired, some diarrhoea
- Losing weight for eight months
- Fever for one month
- Had painful rash on one side of your chest about six months ago. It cleared up after a month, but left scars.
- Delivered last baby 10 months ago the baby died at four months of age.
- You were tested for HIV in hospital, but do not know the result.
- No menses since delivery
- Live with in-laws and two children. Your husband lives in the city.

(Tear off and give to care provider)

Physical Exam

- Very thin
- Oral thrush
- Non-tender, enlarged lymph nodes in neck, armpits
- Decreased breath sounds Left Lower Lobe area
- Herpes Zoster scars on right side of the chest.

Lab

- HIV rapid test positive
- Smear positive for TB

Case No. 4 **EPT:** **Health worker:**	**Good**	**OK**	**Not Good**	**Not Done**
GENERAL • Respectful • Used simple words • Listened to patient • Made sure patient understood				
ASSESS • Asked why came to the clinic? • Reviewed symptoms? • Reviewed past medical history • Look: physical exam				
ADVISE • About what HIV and TB are • Used visual aids (Flipchart, drawings) • About options for treatment • About importance of adherence • Talked about prevention (both HIV and TB)				
AGREE • On treatment plan • On patient role in care				
ASSIST • To solve treatment needs • With strategies for adherence • With disclosure to family as needed				
ARRANGE • Necessary testing or treatment for today • Follow-up or referral (date) • Screening of family members for TB, provide BCG, prophylaxis as needed • Complete TB Card as needed • Recommended HIV-testing for partner and children as needed • Complete HIV Care/ART Card as needed				
CASE-SPECIFIC QUESTIONS • Asked correct questions to reveal signs and symptoms of TB ? (nature of cough, sputum production, fever/sweats, weight loss, any contact) • Explained results of TB test? • Identified risk of HIV (asked about sexual risk, history of: a previous test; infant mortality; other illnesses) and offered test? • Recommended HIV test ? • Patients is correctly classified as WHO stage 3? (asked about persistent fevers, weight loss, diarrhoea, past illnesses)? • Discussed and initiated cotrimoxazole prophylaxis? • Explained HIV treatment and need for urgent referral for ART and arranged immediate ART appointment? • Ordered a Hgb and CD4 count (if available) to prepare for ART? • Correctly identified Category 1 treatment ? • Made follow-up appointment in 2 months? • Arranged DOT if available? • Asked about adherence support strategies? • Advised on importance of HIV disclosure to someone who can offer adherence support? • Advised on need to bring in to clinic household contacts for TB screening? • Recommended HIV testing for partners and children?				

Case No. 5

You are a TB patient, your are here today for results of sputum testing six months after completing Category 1 treatment. You've been coughing for one month. You are HIV-positive. You were diagnosed when you were originally told to have TB, but you have not seen a doctor for HIV.

If asked

- Cough is getting worse, now with brownish sputum.
- You think you may have fevers sometimes, but do not have a thermometer.
- You are back down to the weight that you were before TB treatment.
- Sometimes you forgot to take your TB medicine because you were away from home or working.
- You have not yet told anyone (family or friends) about your HIV or TB diagnoses.

(Tear off and give to care provider)

Physical Exam/Lab (Tear off and give to provider)

- Thin, weak
- Lungs: non-specific findings

Sputum: Positive for TB

Case No. 5 **EPT:** **Health worker:**	**Good**	**OK**	**Not Good**	**Not Done**
GENERAL • Respectful • Used simple words • Listened to patient • Made sure patient understood				
ASSESS • Asked why came to the clinic? • Reviewed symptoms? • Reviewed past medical history • Look: physical exam				
ADVISE • About what HIV and TB are • Used visual aids (Flipchart, drawings) • About options for treatment • About importance of adherence • Talked about prevention (both TB and HIV)				
AGREE • On treatment plan • On patient role in care				
ASSIST • To solve treatment needs • With strategies for adherence • With disclosure to family as needed				
ARRANGE • Necessary testing or treatment for today • Follow-up or referral (date and place) • Screening of family members for TB, provide BCG, prophylaxis as needed • Complete TB Card as needed • Recommended HIV test for partners and children as needed • Complete HIV Care/ART Card as required				
CASE-SPECIFIC QUESTIONS • Correctly identified as Category I TB treatment? • Referral arranged immediately for possible Category 2 treatment? • Patient counselled regarding treatment adherence and drug resistance? • DOTS support arranged? • Patient informed about side effects of medication (yellow eyes, vomiting, abdominal pain) and alcohol use? • Arranged appointment in three months for repeat sputum testing was arranged? • Discussed HIV and OIs and gave cotrimoxazole for prophylaxis? • Patient correctly classified as WHO clinical stage 3? • Ordered a Hgb and CD4 count (if available) to prepare for ART? • Explained about referral for ART and follow-up after initiation of ART? • Discussed the importance of HIV disclosure to someone who can offer adherence support? • Recommended HIV testing for partner and children, as needed?				

Case No. 6

You are in chronic HIV care, not yet on ART, taking cotrimoxazole prophylaxis. Today you are complaining of cough/fever/malaise.

If asked

- You were diagnosed with HIV two years ago. You are single, live with your mother and sister's family. Only your mother is aware of your HIV status, but she does not like to talk about it with you.
- Cough is dry
- You have had fever for one week, fatigue for two weeks
- Weight is stable
- No problems with co-trimoxazole, you usually remember to take it.
- No previous TB diagnosis or treatment
- No one else in your home is ill.

(Tear off and give to care provider)

Physical Exam

- Weak, febrile
- Coarse breath sounds
- Shotty cervical adenopathy

Lab: Three sputums negative
No recent CD4 test

Case No. 6: **EPT:** **Health worker:**	**Good**	**OK**	**Not Good**	**Not Done**
GENERAL • Respectful • Used simple words • Listened to patient • Made sure patient understood				
ASSESS • Asked why came to the clinic? • Reviewed symptoms? • Reviewed past medical history • Look: physical exam				
ADVISE • About what HIV and TB are • Used visual aids (Flipchart, drawings) • About options for treatment • About importance of adherence • Talked about prevention (both TB and HIV)				
AGREE • On treatment plan • On patient role in care				
ASSIST • To solve treatment needs • With strategies for adherence • With disclosure to family as needed				
ARRANGE • Necessary testing or treatment for today • Follow-up or referral (date and place) • Screening of family members for TB, provide BCG, prophylaxis as needed • Complete TB Card as needed • Recommended HIV test for partner as needed • Complete HIV Care/ART Card as needed				
CASE-SPECIFIC QUESTIONS • Asked correct questions to reveal signs and symptoms of TB (nature of cough, sputum production, fever/sweats, weight loss, about contacts)? • Patient correctly classified as WHO stage 3? • Evaluated adherence to cotrimoxazole prophylaxis • Explained TB smears are negative, but it may be possible that you do have TB, because the test is often negative in people with HIV? • Prescribed antibiotics? • Arranged for next visit in one week—explained that if you do not improve quickly, you will need TB treatment? • Explained HIV treatment? • Ordered a CD4 count (if available) to evaluate need for ART? • Advised on importance of HIV disclosure to someone who can offer adherence support?				

Case No. 7

You are a 25-year-old male, and have finished intensive phase TB treatment. You are here today for follow-up. When diagnosed with TB, you were told that you had HIV. You are taking co-trimoxazole prophylaxis.

If asked

- No problems with TB medication
- Gaining weight
- No symptoms: no cough, no pain, energy level good
- No regular sexual partner; sporadically sexually active.

(Tear off and give to care provider)

Physical Exam (Tear off and give to care provider)

- Weight increased five kg from last visit
- Normal exam.

Case No. 7 **EPT:** **Health worker:**	**Good**	**OK**	**Not Good**	**Not Done**
GENERAL • Respectful • Used simple words • Listened to patient • Made sure patient understood				
ASSESS • Asked why came to the clinic? • Reviewed symptoms? • Reviewed past medical history • Look: physical exam				
ADVISE • What HIV and TB are • Used visual aids (Flipchart, drawings) • About options for treatment • About importance of adherence • Talked about prevention (both HIV and TB)				
AGREE • On treatment plan • On patient role in care				
ASSIST • To solve treatment needs • With strategies for adherence • With disclosure to family as needed				
ARRANGE • Necessary testing or treatment for today • Follow-up or referral (date) • Screening of family members for TB, provide BCG, prophylaxis as needed • Complete TB Card as needed • HIV testing for partners and any children • Complete HIV Care/ART Card as needed.				
CASE-SPECIFIC QUESTIONS • Assessed adherence to co-trimoxazole? • Patient correctly classified in WHO clinical stage 3? • Asked about side effects of medications (yellow eyes, vomiting, abdominal pain) and alcohol use? • Ordered sputum smear? • Prescribed maintenance TB medication and cotrimoxazole? • Made follow-up appointment? • Explained about HIV treatment and signs and symptoms of OIs? • Reached an agreement on long-term care plan ? • Ordered a CD4 count (if available)? • Advised on importance of HIV disclosure to someone who can offer adherence support?				

Case No. 8

You are a 23-year-old woman diagnosed with HIV after your husband died of AIDS. You are at the clinic for follow-up HIV care.

If asked:

- You've been coughing for one month and have been producing sputum but you have not looked at the colour
- You have never spoken to anyone about HIV treatment
- You have experienced some weight loss
- You were treated for and completed TB treatment two years ago
- Before your husband died, you were not able to get pregnant

(Tear off and give to care provider)

Physical Exam (Tear off and give to care provider)

Decreased breathing sounds, Left Upper Lobe area of chest
Thin female with shotty lymph nodes
Weight 45 Kg

Case No. 8 **EPT:** **Health worker:**	**Good**	**OK**	**Not Good**	**Not Done**
GENERAL • Respectful • Used simple words • Listened to patient • Made sure patient understood				
ASSESS • Asked why came to the clinic? • Reviewed symptoms? • Reviewed past medical history? • Look: physical exam?				
ADVISE • What HIV and TB are • Used visual aids (Flipchart, drawings) • About options for treatment • About importance of adherence • Talked about prevention (Both HIV and TB)				
AGREE • On treatment plan • On patient role in care				
ASSIST • To solve treatment needs • With strategies for adherence • With disclosure to family as needed				
ARRANGE • Necessary testing or treatment for today • Follow-up or referral (date) • Screening of family members for TB, provide BCG, prophylaxis as needed • Complete TB Card as needed • HIV test for partners • Complete HIV Care/ART Card as needed				
CASE-SPECIFIC QUESTIONS • Asked correct questions to reveal signs and symptoms of TB? (nature of cough, sputum production, fever/sweats, weight loss, any contacts)? • Ordered sputum smear, explained procedure (spot, morning, spot)? • Made appointment for TB results? • Discussed co-trimoxazole prophylaxis (benefits, past history of sulpha drug allergy, informed possible cotrimoxazole side effects, etc.)? • Patient correctly classified in WHO clinical stage 3? • Explained HIV treatment? • Reached an agreement to long term care plan? • Ordered a CD4 count (if available)? • Recommended HIV test for partners? • Made follow-up appointment? • Advised on importance of HIV disclosure to someone who can offer adherence support?				

Case No. 9

You are a 22-year-old woman on ART and complaining of neck swelling.

If asked

- Have been taking D4T, 3TC, and NVP for one month with no missed doses
- You were treated for TB two years ago
- You have lost 10 kg in the past six months
- You have had a cough and some shortness of breath for the past two weeks, with fever off and on

(Tear off and give to care provider)

Physical Exam (Tear off and give to care provider)

Tender, suppurative four cm left cervical lymph node
Normal breath sounds

Case No. 9 **EPT:** **Health worker:**	**Good**	**OK**	**Not Good**	**Not Done**
GENERAL • Respectful • Used simple words • Listened to patient • Made sure patient understood				
ASSESS • Asked why came to the clinic? • Reviewed symptoms? • Reviewed past medical history • Look: physical exam				
ADVISE • What HIV and TB are • Used visual aids (Flipchart, drawings) • About options for treatment • About importance of adherence • Talked about prevention (both HIV and TB)				
AGREE • On treatment plan • On patient role in care				
ASSIST • To solve treatment needs • With strategies for adherence • With disclosure to family as needed				
ARRANGE • Necessary testing or treatment for today • Follow-up or referral (date) • Screening of family members for TB, provide BCG, prophylaxis as needed • Complete TB Card as needed • HIV test for partners • Complete HIV Care/ART Card as needed				
CASE-SPECIFIC QUESTIONS • Asked correct questions to uncover TB disease (nature of cough, sputum production, fever/sweats, weight loss, about contacts)? • Ordered sputum smear? • Reviewed adherence to ART? • Patient correctly classified as WHO stage 3? • Recognized IRS due to TB (see HIV Care card), • Explained IRS, reassured patient? • Referred for TB-ART co-treatment? • Did not prescribe TB treatment (to be done at next level)? • Did not stop ART, counselled to continue? • Asked about any ARV drug side effects? • Recommended HIV test for partners and children?				

Case No. 10

You are a 32-year-old male complaining of nausea and vomiting. You have been recently discharged from hospital and are on TB and ART treatment.

If asked

You were in hospital for TB pneumonia and felt better on medication, you had no missed doses until you began vomiting two days ago.
You were diagnosed with HIV 3 years ago, but never started on treatment until now.
Current medications are four TB medicines, one tablet twice a day for HIV and another one (a big white tablet) each morning
Previously you drank alcohol quite a bit, now "not really".
Urine has been "dark"
You have been vomiting all food and are able to drink only a bit of water.
No cramping, but stomach a bit "sore"
No stools
No fever
You live with your spouse and one child. Spouse is aware of diagnosis, but has not been tested for HIV or TB. You are currently unemployed.

(Tear off and give to care provider)

Physical Exam (Tear off and give to care provider)

Thin
Mild jaundice
Lungs clear
Palpable liver edge, slightly tender

Case No. 10 **EPT:** **Health worker:**	**Good**	**OK**	**Not Good**	**Not Done**
GENERAL • Respectful • Used simple words • Listened to patient • Made sure patient understood				
ASSESS • Asked why came to the clinic? • Reviewed symptoms? • Reviewed past medical history • Look: physical exam				
ADVISE • What HIV and TB are • Used visual aids (Flipchart, drawings) • About options for treatment • About importance of adherence • Talked about prevention (both HIV and TB)				
AGREE • On treatment plan • On patient role in care				
ASSIST • To solve treatment needs • With strategies for adherence • With disclosure to family as needed				
ARRANGE • Necessary testing or treatment for today • Follow-up or referral (date) • Screening of family members for TB, provide BCG, prophylaxis as needed • Complete TB Card as needed • Recommended HIV test to partners and children • Complete HIV Care/ART Card as needed				
CASE-SPECIFIC QUESTIONS • Correctly identified as drug side effect? • Stopped all TB and HIV medications? • Discussed the importance of urgent referral for TB-ART co-treatment and management of drug side effects? • Referred to district doctor/medical officer for evaluation? • Advised that you will still need treatment for TB and HIV? • Arranged follow-up appointment within one week?				

Case No. 11

You are a 30-year-old HIV-positive TB patient who has come in for follow-up. You are stable on CATEGORY 1 treatment and began ART two weeks ago with AZT, 3TC, and NVP.

If asked

- You are taking all medications with the help of family members; no missed doses
- Cough is better, weight improving
- Feeling tired, “lazy”, dizzy at times
- Short of breath walking up the hill to your home.

(Tear off and give to care provider)

Physical Exam

- Pale conjunctiva, mucosa

Lab:

- Hgb 5.5 gm/dl

Case No. 11 **EPT:** **Health worker:**	**Good**	**OK**	**Not Good**	**Not Done**
GENERAL • Respectful • Used simple words • Listened to patient • Made sure patient understood				
ASSESS • Asked why came to the clinic? • Reviewed symptoms? • Reviewed past medical history • Look: physical exam				
ADVISE • What HIV and TB are • Used visual aids (Flipchart, drawings) • About options for treatment • About importance of adherence • Talked about prevention (both TB and HIV)				
AGREE • On treatment plan • On patient role in care				
ASSIST • To solve treatment needs • With strategies for adherence • With disclosure to family as needed				
ARRANGE • Necessary testing or treatment for today • Follow-up or referral (date and place) • Screening of family members for TB, provide BCG, prophylaxis as needed • Complete TB Card as needed • Recommend HIV testing for partners and children • Complete HIV Care/ART Card as needed				
CASE-SPECIFIC QUESTIONS • Asked correct questions to reveal signs and symptoms of anaemia? (fatigue, shortness of breath, dizziness)? • Counselled that anaemia is a serious side effect of AZT? • Checked haemoglobin today and correctly diagnosed anaemia? • Changed AZT to d4T? • Referred for further evaluation? • Continued TB treatment? • Counselled on nutritional needs for anaemia (iron-rich foods, vitamin C)? • Arranged for community nutrition support resources (if available)? • Prescribed iron, if available? • Arranged follow-up appointment to re-check Hgb and sputum in two weeks? • Checked that family have been screened for TB and HIV? • Reviewed adherence strategies and support?				

Case No.12

You are 27 years old and have been on TB treatment for three months. You are complaining of a painful rash on your buttocks.

If asked

- Rash began one week ago and is very painful.
- You were previously treated for TB twice: first three years ago, then six months ago; you took pills for two months before you “got tired of them”.
- Hospitalized one month ago with TB , given different medicine this time, which “seems to work better”. Cough improving, gaining weight.
- You live in a boarding house of male workers. You have no family living here.
- You smoke one packet of cigarettes per day, also occasional marijuana. You drink on weekends.
- Diagnosed with HIV with first TB diagnosis never followed up.

(Tear off and give to care provider)

Physical Exam (Tear off and give to care provider)

Oral thrush
Fluid-filled vesicles over right buttock, very tender
Lungs clear

Case No. 12 **EPT:** **Health worker:**	**Good**	**OK**	**Not Good**	**Not Done**
GENERAL • Respectful • Used simple words • Listened to patient • Made sure patient understood				
ASSESS • Asked why came to the clinic? • Reviewed symptoms? • Reviewed past medical history • Look: physical exam				
ADVISE • What HIV and TB are • Used visual aids (Flipchart, drawings) • About options for treatment • About importance of adherence • Talked about prevention (both for TB and HIV)				
AGREE • On treatment plan • On patient role in care				
ASSIST • To solve treatment needs • With strategies for adherence • With disclosure to family as needed				
ARRANGE • Necessary testing or treatment for today • Follow-up or referral (date) • Screening of family members for TB, provide BCG, prophylaxis as needed • Complete TB Card as needed • Recommended HIV test for partners and children • Complete HIV Care/ART Card as needed				
CASE-SPECIFIC QUESTIONS • Patient correctly classified in WHO clinical stage 3? • Explained about HIV treatment? • Reached an agreement to long-term care plan? • Connected to resources for adherence support? • Discussed and prescribed co-trimoxazole prophylaxis? • Treated problems presented by the patient? (thrush, rash) • Arranged for DOT? • Encouraged to continue TB treatment? • Asked about any side effects of current medications? • Explained that you will need ART? • Ordered a CD4 count (if available)? • Made follow-up appointment to repeat sputum smear and evaluate adherence to CTX in one month? • Advised on importance of HIV disclosure to someone who can offer adherence support? • Advised on importance of adherence to treatment?				