Tuberculosis Management Desk Aide, NTP Ghana

Preface

In spite of great success in improving treatment outcomes, Ghana's case detection is far behind the 2005 World Health Assembly global target for case detection (>70% of estimated incidence of new smear positive TB). This low case detection rates remain an obstacle to the long-term success of the NTP in Ghana. The comprehensive Programme review of the Ghana NTP in 2007 and the National Tuberculosis Health Sector Strategic Plan for Ghana (2009-2013) clearly identified low TB case detection as one of the main challenges facing TB control in Ghana. There is therefore the need to identify new strategies and activities to address this challenge. One of the strategies is the use of culture and drug susceptibility testing in detection of TB and anti-TB drugs resistance.

The manual is divided into eight chapters. The first chapter describes the bacteriology of tuberculosis. The next four chapters provide detailed description of TB, culture processes, identification of mycobacterial species, and anti-tuberculosis drug susceptibility testing, quality assurance in Tuberculosis culture and drug susceptibility testing laboratory. Chapter 6 continues with safety precautions in a tuberculosis culture laboratory and chapter 7 how to maintain laboratory equipment and the manual ends with management of logistics. This manual is simple to read and can be use for laboratory personnel.

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INTRODUCTION TO DESK AIDE

The Desk Aide is the summary of the training manual. It captures all important information that you need to successfully diagnose and treat a TB case. It is a handy reference manual and companion for easy reference.

The desk aide follows logical sequence of tasks to perform when handling suspected or confirmed TB patients. It starts with suspecting TB in those attending our health facilities and goes through the step by step handling of them till treatment outcome is provided. As we go along, we bring in anticipated problems and their management at various stages.

TB care is intergrated so while we look out for TB patients, we should always remember the need to take very good histories and consider differential diagnosis as TB is not the only condition that gives chronic cough

Remember we seek to provide quality care for TB patients and those affected by it within their community settings.

HOW IS THE DESK AIDE ORGANISED?

The Desk Aide follows step by step the process of delivering TB care, from the presenting symptoms to the cure. The topics of the Desk Aide are:

1. *Suspecting TB in people with cough*
2. *Diagnosing TB in a patient*
3. *TB/HIV Co-Infection*
4. *Categorising TB patients*
5. *Prescribing drugs for the TB patient*
6. *Educating the patients about TB/HIV*
7. *Helping the patient select appropriate treatment supporter*
8. *The role of the treatment supporter*
9. *Managing household contacts*
10. *Follow-up Visits*
11. *Identification of patients at risk of defaulting and default prevention*
12. *Follow-up at diagnostic/ treatment centre*
13. *Managing treatment interruption*
14. *Declaring treatment outcome*

AN EXPLANATION TO THE SYMBOLS USED IN THE DESK AIDE

Various symbols are used in the Desk Aide. They are found next to certain statements and indicate the nature of that statement. The following explains the different symbols used.

➢ Main query or step – this refers to a point/area under consideration

√ Sub query or sub step – this refers to 2 or more points related to a main point

☞ Recommended action to be taken

⌟ Diagnosis or possible condition

DECIDE THE LIKELY PROBLEM (S), ADVICE AND TREAT:

Suspect TB if any of these are present

➢ Cough 2 weeks or more, or

➢ Cough less than 2 weeks or of uncertain duration, PLUS either

√ Blood stained sputum or fever at night or weight loss, or

√ Previous TB in the patient, family or other close contact

TB SCREENING QUESTIONNAIRE

NAME: .....OPD Folder No:.....

AGE: ..... SEX: M/F DATE: .....

SYMPTOM SCREEN

Do you have any of the following symptoms? (Please circle grade for response)

	Yes	No
Cough more than 2 weeks	2	0
Cough less than 2 weeks	1	0
Sputum production	2	0
Coughing up blood	2	0
Loss of weight in last 3 months	1	0
Drenching night sweats	1	0
Fever	1	0
Chest pain	1	0
History of contact with TB case	1	0
History of smoking /alcohol	1	0
Total Score:	☐	☐

Consider Client as ELIGIBLE for testing IF:	Interpretation
Cough is for 2 weeks or more	**ELIGIBLE**
Cough is less than 2 weeks & score 3 or more on symptom screen	**ELIGIBLE**
Score of 4 or more on symptom screen	**ELIGIBLE**

Explain importance of sputum exams, Collect and send 2 sputum samples to the laboratory (possibly within 24 hours)

Suspecting TB in People with Cough

Try to provide privacy and courtesy; with only one patient in the room,

- Greet, ask name, and ask what the problem is?

IF THE PATIENT COMPLAINS OF COUGH ask: (remember there is a TB screening tool to guide you)

How long has he/she been coughing? As required, ask further questions to know if the cough has been present for more or less than 2 weeks, e.g:

- Has he/she recently had a cough before this?
- If yes, ask for how long?

What other symptoms does he/she have?

- Does he/she cough up sputum? What colour? Is it stained with blood?
- Does he/she have fever, if yes, for how long, is it more by day or night?
- How is his/her weight and appetite?
- Does he/she have drenching night sweats?

Does he/she smoke? if so, for how long ?

Does any close contacts/family members have TB now or had it in the past?
Does any close contacts/family members have any of the above symptoms?

Examination – look and listen for these signs:

- Count the pulse, and take the temperature
- Count the respiratory rate
- Take blood pressure

DECIDE THE LIKELY PROBLEM(S), ADVICE AND TREAT:
Suspect other chest illness

Suspect TB if any of these present

- Cough 2 weeks or more
- Cough less than 2 weeks or of uncertain duration, PLUS either
  - √ Blood stained sputum or fever at night or weight loss, or
  - √ Previous TB in the patient, family or other close contact

REQUEST FOR SPUTUM EXAMINATION

- Explain the importance of sputum examination
- ☞ Collect 2 sputum samples within 24 hours and send them to the laboratory

Diagnosing TB in a Patient

DIAGNOSING TB IN A PATIENT:
Your patient should be back within 24 hours to review the lab results with you. Make every effort to contact patient if any of the sputum sample is smear positive

Decide If Pulmonary TB (smear positive or negative):

- If one or more *positive* sputum smear
  - ☞ register as sputum smear positive
- If two smears were negative and patients has signs and symptoms consistent of TB
  - ☞ refer to clinician
- If clinician suspect TB
  - ☞ Request for chest X-ray (digital X-ray where available)

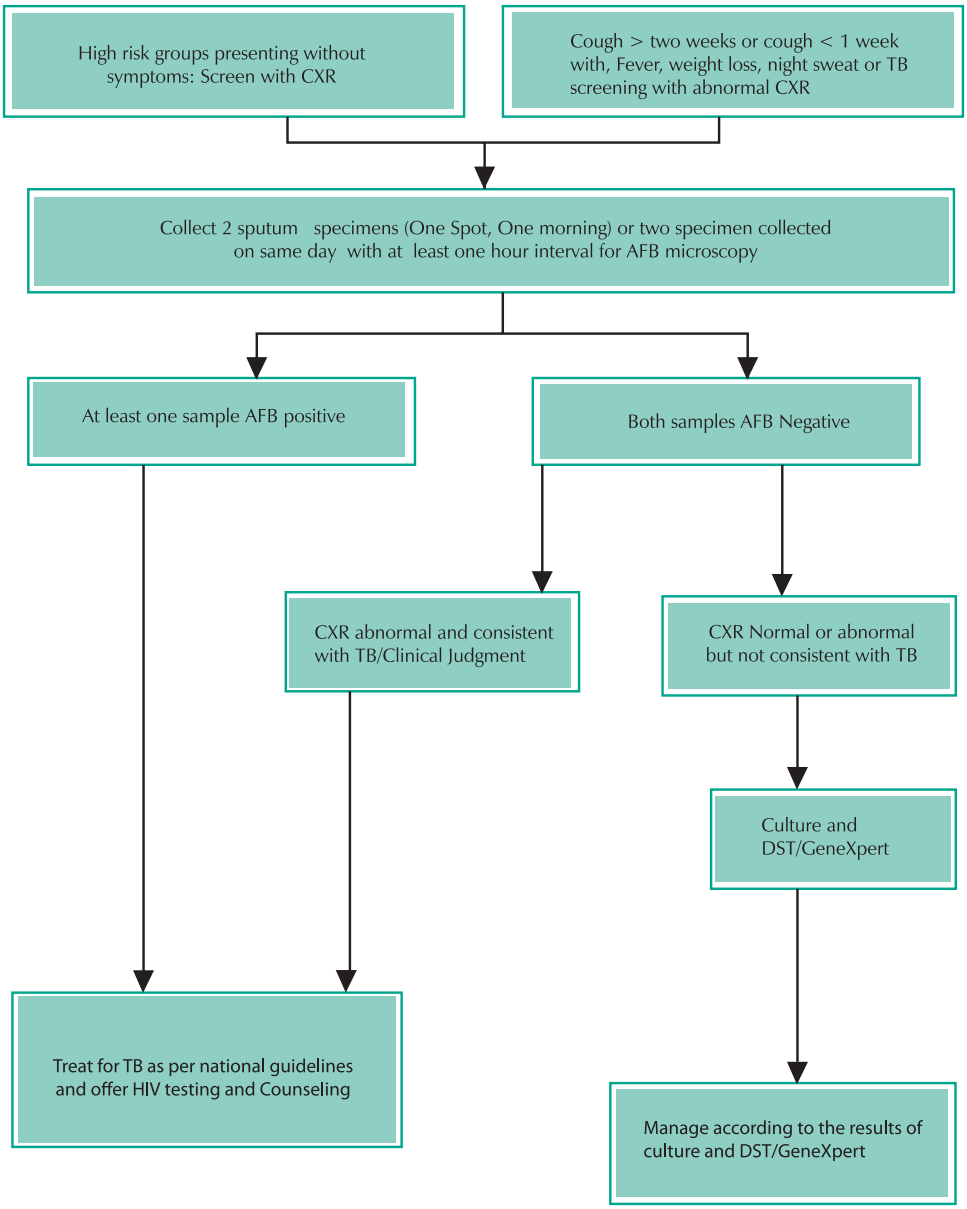
If X-ray changes are consistent with TB, and or HIV positive patient then
- ☞ Refer for GeneXpert where available else Treat as TB

If X-ray changes are not consistent with TB and patient is HIV negative
- ☞ MO treat according to other diagnosis

If GeneXpert is positive for TB, Rifampicin non Resistant
- ☞ Register as Smear negative pulmonary TB and treat

If GeneXpert is positive for TB, Rifampicin Resistant
- ☞ Send specimen for culture and DST
- ☞ Refer patient to clinician trained in management of MDR TB

Fig. 5 Algorithm for Pulmonary TB diagnosis



THE ROLE OF CHEST X-RAY IN DIAGNOSING TB

NTP: Recommendation on the use of Chest X-ray as an additional screening tool depending on the clinical picture or risk profile of the patient	
Passive case finding:	
Patients that present symptoms consistent with TB	CXR (always additionally to existing procedures). If smear was already positive, then no X-ray.
Active case finding/ screening:	
Household contacts of TB patients	- CXR when cough for two weeks or more; - CXR when cough for 24 hours plus any of - fever - drenching night sweats - Weight loss
Hospitalized patients	- CXR when cough for two weeks or more; - CXR when cough for 24 hours plus any of - fever - drenching night sweats - Weight loss
Persons PLHIV	Both Sputum and CXR is recommended in case of any one of the following: - cough for 24 hours plus any of - fever - drenching night sweats - Weight loss

	Additionally a CXR is recommended every 6 months as a regular screening activity
Diabetics	CXR when coughing last 24 hours with or without other symptoms
	Additionally a CXR is recommended every 6 months as a regular screening activity

Slum dwellers (Mobile TB Screening program)	- CXR when cough for two weeks or more;
	- CXR when cough for 24 hours plus any of
	  - fever
	  - drenching night sweats
	  - Weight loss

Prison inmates	Only if CXR can be made available at prison sites: CXR on entry, every 6 months and /or on exit
Health care providers particularly at DOTS stations and chest clinics	A CXR is recommended once a year as a regular screening activity

TB/ HIV Co-Infection

- Some TB patients are also HIV positive.
- Educate all persons with TB about HIV.
- Offer all TB patients HIV testing and counselling.
- All patients who are co-infected will need both Co-Trimoxazole prophylaxis and ART irrespective of their CD4 count.
- People with HIV and TB can be cured of TB just as HIV negative people.
- Any person, HIV positive or negative, must take the TB tablets properly every day for the full course of treatment.
- Pregnant women with TB/HIV co-infection must be treated according to the National PMTCT guidelines to protect their infants from getting HIV.

Categorizing TB Patients

You will have to categorize each patient carefully into two broad groups.

- **New Patient: Patients who have never taken anti-TB drugs before or if they did took it for less than 4 weeks**

- **Previously Treated Patient: Patients who previously took some form of treatment for TB that lasted for more than 4 weeks duration. i.e Relapse, Treatment Failure, Return after default.**

COMPLETE THE TB TREATMENT CARD AND REGISTER.

Ask and record information on the TB 01 (treatment card), and TB03 (TB register):

- Ask the full residential traceable address of the patient and contact details.
- Use list of associated facilities and villages in catchment area to identify a suitable treatment centre.
- Record address, contact person details and treatment centre in TB01 and include;
- Disease classification: Tick pulmonary or Extra Pulmonary.
- If Pulmonary, indicate sputum smear results as positive (+) or negative (-).
- If Extra Pulmonary, indicate site, e.g. lymph node, spinal
- Type of patient i.e. New or Previously treated patient. (ask carefully if he/she has taken TB drugs previously and if so was it for 4 weeks or more, see box below)
- Patient treatment group: Either New or Previously Treated .
- Fill in the first part of the TB register TB03 by transferring data from the TB01

Decide the Treatment group:

1. New Patient - any TB patient (who has never taken drugs or if treated not taken more than 4 weeks of TB drugs in the past)
2. Previously treated patients– any relapse, return after default, failure or other patient who has taken more than 4 weeks TB drugs in the past
3. Paediatric patients
4. Multi Drug Resistance patients

A Guide to the new patient grouping or categorization:

History of drug intake	Treatment Group
➢ Never taken TB drugs in past ➢ Taken TB drugs for less than 4 weeks in past	New
Taken TB drugs and transferred from another TB Register	Transfer in
Taken full course of TB treatment in past & declared cured.	Previously Treated
➢ Smear positive patient taken TB drugs for 5 +months ➢ Smear negative patient taken drugs for 2 months	Previously Treated
Taken drugs for at least 4 weeks, then interrupted for 8 weeks	Previously Treated
Taken two courses of anti-TB treatment and then remains sputum positive,	Needs Culture and DST: (See MDR-TB manual)

Prescribing Drugs for the TB Patient

New patient group (> 14 years)

A new case is a patient who has not taken TB drugs before, or has taken less than 4 weeks of TB drugs in the past

Table 1a. New patient group more than 14 years

Regimen	**Initial phase** (2 months)	**Continuation Phase** (4 months)
	2(RHZE)	4(HR)
	Daily 56 total doses	112 total doses Daily
Patient's Weight	(Isoniazid 75mg+ Rifampicin 150mg + Pyrazinamide 400mg + Ethambutol 275mg)	112 total doses (Isoniazid 75mg + Rifampicin 150mg) For 4 months
30-39 kg	2	2
40-54 kg	3	3
55-70 kg	4	4

The above are for the combination HRZE supplied through the Global TB Drug Facility.

Previously treated group (> 14 years)

A previously treated TB case includes failure, relapse, return from default and others who have taken more than 4 weeks of TB drugs in the past.

Regimen	**Initial phase** (2 months)		**Continuation Phase** (4 months)
Patient's Weight	2(RHZE)S / 1(RHZE)		5HRE
	Daily 84 total doses of HRZE plus 56 doses of S		Daily 140 total doses
	(Isoniazid 75mg+ Rifampicin 150mg + Pyrazinamide 400mg + Ethambutol 275mg)	Streptomycin (vials,IM) 2 months	(Isoniazid 75 mg +Rifampicin 150 mg) + Ethambutol 275mg
30-39 kg	2	0.500	2 + 2
40-54 kg	3	0.750	3 + 3
55-70 kg	4	1g*	4 + 4

* 0.750 if 60 years or over.

NB: Request for Sputum culture, GeneXpert and DST for all previously treated patients before treatment. Continue the treatment till results are ready and change treatment based on guidelines

Table 2a. Recommended treatment for HIV uninfected

TB disease category	**Recommended Regimen**	
	Intensive phase	**Continuation phase**
New PTB	2HRZE	4HR
EPTB (except TB meningitis and osteoarticular TB)**	2HRZE	4HR
#TBM** and osteoarticular TB	2HRZE	10HR
Retreatment	2(HRZE)S 1HRZE	5(HR E)***

Table 2b.Recommended treatment for HIV infected

TB disease category	Recommended Regimen	
	Intensive phase	Continuation phase
New PTB	2HRZE	4HR
EPTB (except TB meningitis and osteoarticular TB)**	2HRZE	4HR
#TBM** and osteoarticular TB	2HRZE	10HR
Retreatment	2(HRZE)S 1HRZE	5(HR E)***

Where the benefit outweighs the risk the referral clinician or paediatrician in a tertiary facility may consider the use of streptomycin in the intensive phase under strict monitoring in the dose of (20-40mg/ kg).

**Indications for steroid use in childhood TB include endobronchial TB, large pleural effusion, pericardial effusion and TBM.
The duration of steroid use should not exceed a period of one month.

***The physician may extend the duration of treatment in HIV infected children depending on the clinical response.

Numeral refers to number of months of the regimen eg 2HRZE refers to two months of daily isoniazid, rifampicin, pyrazinamide and ethambutol.

Table 3. Recommended dosages according to weight (WHO, 2010)

Drug	Daily dosage in mg/kg Range (maximum)
Isoniazid (H)	10-15 (300mg)
Rifampicin (R)	10-20 (600mg)
Pyrazinamide (Z)	30-40 (2000mg)
Ethambutol (E)	15-25 (1200mg)

***The physician may extend the duration of treatment in HIV infected children depending on the clinical response.

Numeral refers to number of months of the regimen e.g. 2HRZE refers to two months of daily isoniazid, rifampicin, pyrazinamide and ethambutol.

Dosing Regimen for Paediatrics

*Child's Weight	2 Months Intensive Phase (No. of tablets)		4 Months Continuation Phase (No. of tablets)
	**RHZ (60/30/150mg)	E (100mg)	**RH (60/30)
5 – 7 kg	1	1	1
8 – 14 kg	2	2	2
15 – 20 kg	3	3	3
21 – 30 kg	Adult Medicine (CAT I & III) Give 2 tablets daily		Adult Medicine (CAT I & III) Give 2 tablets daily

RE-TREATMENT CASES

Re-treatment of TB Case in Children ≤ 12 Years					
*Child's Weight	Intensive Phase (No. of tablets)			Continuation Phase (No. of tablets)	
	***S (1g)	**RHZ (60/30/150mg)	E (100mg)	**RH (60/30)	E (100mg)
5 – 7 kg	100mg	1	1	1	1
8 – 14 kg	200mg	2	2	2	2
15 – 20 kg	280mg	3	3	3	3
21 – 30 kg	400mg	Adult Medicine (CAT I & III) Give 2 tablets daily		Adult Medicine (CAT I & III) Give 2 tablets daily	

*Increase the number of tablets the child takes daily as the child gains weight and moves to a higher weight band

** Dispersible tablets. Tablets should be dissolved in water and given immediately to children

Educating Patient about TB/ HIV – Health worker

Health worker to start at the beginning of treatment (month 0) and reinforcing key messages at months 2 (3), 5 and 6 (8), and at home visits.

Educate the patient using the following key messages

- Tuberculosis is not inherited. It is a disease anyone could get. However some people are more likely to get it. For example a person who's body is weak due to HIV infection, a poor diet, or drinking too much alcohol. You should eat well, avoid excessive alcohol and smoking.
- Treatment cures tuberculosis. You will soon feel better with treatment and not be infectious to others.
- It is very important to take the tablets for the full duration of treatment. If you stop treatment early the TB will come back and be much more difficult to treat.

√ Tuberculosis is mainly a disease of the lungs. TB can also affect other parts of the body (lymph nodes, bones, kidneys). Your TB is in the..... (explain the part affected).

√ Cough spreads the TB germs. TB is not spread through plates or clothes etc.

√ Cover your mouth with handkerchief, cloth or tissue when you cough, there is no need to cover at all times – Dispose off properly e.g. bury, disinfect any sputum you've coughed out. There is no reason to feel ashamed of having TB. Tuberculosis is not inherited.

√ Treatment cures TB. You must take TB tablets for 6 months (8 months for re-treatment). Your treatment will last until..... (say which month it finishes)

- √ TB medicines are free. Your drugs will be delivered by the health worker at the health facility or by the CHO or treatment supporter in your locality.
- √ It is important that you take your drugs every day, for the full duration of treatment.
- ➢ This is difficult to do. Almost everyone forgets to take medicine especially when they are feeling better and are able to work.
- ➢ If you wish, you may take the tablets at home instead of coming to the hospital or health centre daily for the first two months. If so, a treatment supporter instead of a nurse can support you take your tablets.
- ➢ We will help you choose someone to help you complete the TB treatment and support you while you take your treatment, so that you get the right tablets in the right dose for the right length of time-to get you cured.
- ➢ We will help you choose a treatment supporter and train him/her to support you swallow tablets every day and check for problems every week.
- ➢ Tell your treatment supporter if there are any unwanted effects of the TB tablets they will have to come with you to the treatment centre.
- ➢ Every month you will visit the treatment centre for review by the health worker. At special times (at the end of 2, 5 and 6 (8) months) you will visit either the diagnostic centre or the treatment centre to have sputum test.
- ➢ Ask the patient if he/she has any questions or concerns. Answer these concerns
- ➢ Ask if they accept community based TB care, if no, arrange for treatment at the health centre (treatment centre), if yes, select treatment supporter and register the patient.

Reassure patient

- You may feel sick now, but the tablets will make you better as long as you take them for the full specified period.

Explain the treatment to the patient:

√ Show the tablets and explain the number of each tablet to take daily

√ Explain that we will arrange for someone to help you take your tablets daily

√ Reassure patient not to worry if the urine goes orange, it is normal with these drugs, but if any other unwanted effects from the drugs, report to health facility

Educate on HIV in TB patients

√ It is recommended that you have an HIV test. If you are HIV positive, you can live positively and you can have anti-HIV treatment.

√ Some people with TB have HIV as well. You cannot tell by looking that someone has HIV.

√ People with HIV and TB can be cured of their TB the same as people without HIV

√ Protect yourself and others from HIV by Abstaining, Being faithful or by using a Condom each time you have sex (ABC)

For all TB/HIV co-infection individuals

√ You will receive tablets (Co-Trimoxazole) daily to protect you against some infections such as diarrhoea, pneumonia etc that are common with HIV

√ You will also need ART in addition to the TB medication

Helping the Patient Select the Appropriate Treatment Supporter

Explain:

You can decide who is the appropriate person to be your treatment supporter.

- Experience with TB patients suggest that the appropriate person is someone who:
  - Lives nearby so you can meet daily.
  - Is reliable and will support you take the correct number of tablets every day.
  - Is concerned about you finishing treatment and getting cured
  - Is acceptable to you the patient
  - Someone who is available nearly every day in the month,
- People with TB often choose either:
  - A health facility, if nearby, or
  - A community health worker
  - Ask, would you be able to visit the health worker or the treatment centre (identified) each day?
- Look: at the list of treatment supporters to identify a CHO or other health workers living in the community. Are any near or acceptable to patient?
- Agree who is suitable and acceptable treatment supporter. If no suitable treatment supporter is identified and you can not see a health worker everyday;
  - You may choose a responsible community or family member who is concerned and reliable to be your treatment supporter. You will also have to see the health worker each week to make sure there are no problems. Summarise by saying:
  - Your treatment supporter is ...

- Your health worker is (if different)
- Your treatment centre is ....
- Your diagnostic centre is .....

Arrange contact with treatment supporter:
Arrange to meet treatment supporter at the treatment centre within the next week by sending letter, verbal message through the patient, a text message or email. You can also call the Treatment Supporter.
Tell the patient they must also attend this meeting.
Give the patient enough tablets to last them till the day of this meeting.

Preparing the Treatment Supporter

This is done by the ITC and CHO or any other assigned health worker

➢ Ask: Do you accept to be a treatment supporter? If yes, then:

➢ Teach the treatment supporter:

√ About TB using the key messages

√ About DOT being the best way to help a person complete his/her treatment. Use the guidelines

√ About the details of the patient's treatment regimen by showing example tablets, in the correct numbers for that patient's regimen. Explain how the tablets should be stored

√ About giving the treatment correctly by showing them a copy of the Treatment Support Card

√ Do a role-play of daily treatment support.

√ About recording the observation of daily treatment on the treatment support card.

√ Demonstrate how everyday, they must record on the treatment support card if the tablets are taken.

√ Practise daily recording by means of a role-play.

➢ **Discuss**

√ Any concerns of the supporters for example the risk of catching TB themselves

√ How the treatment supporter will get the tablets by collecting them every month when they accompany the patient to the treatment centre for review.

➢ **Explain what to do if:**

- **The patient misses 2 days of treatment:**

➢ The treatment supporter must visit the patient and try to sort out the problem - if they cannot they must report to the CHO, clinic nurse or ITC as soon as possible

- **The patient does not agree to continue treatment:**

➢ The treatment supporter must report to the CHO, clinic nurse or ITC as soon as possible

- **The patient has problems with any drugs or new symptoms:**

➢ The treatment supporter should tell him/her to go to the clinic straight away

- **The patient has to go away for a few days:**

➢ The treatment supporter should remind the patient of the importance of taking medication. If the absence cannot be avoided, the treatment supporter should give the tablets for the correct number of days. When the patient returns, record the treatment as taken but not observed.

The Role of Treatment Supporter

How to Directly Observe TB Treatment

1. Welcome the patient. Ask how he or she is and listen to the response while you begin to prepare the medicines.

2. **Prepare** for Observed Intake:
   - √ Check the patient's name and surname on the box
   - √ Open your box of medicines.
   - √ Wash your hands and pour a glass of water for your patient.
   - √ Take out the patient's treatment kit, which contains all his or her medicines.

3. **Observe** the Intake:
   - √ Open the blister pack and drop the tablets directly onto the hand of the patient (avoid touching) and offer him or her a glass of water.

   - √ The tablets must all be taken while you the TB Treatment Supporter, watch your patient swallow them.

4. **Record** on the Treatment Support Card (kept with supporter).
   - √ Tick the column as appropriate

DO	DO NOT
Make sure the medicines are safe.	x Do not store tablets in damp places and direct sunlight
Keep medicines out of reach of children.	x Do not drop tablets on the floor. (Throw away tablets, which fall on the floor).
Know the name, colour and strength of each tablet.	x Do not replace one patient's tablets for another's.
If the patient cannot swallow the tablets, crush them.	x Do not give only part of the daily medicines.
Encourage him/her when feeling depressed, or despairing that he/she is not going to get better, Advise that if he/she takes tablets every day for the full duration of treatment – he/she will get completely well.	x Do not criticise, x Do not get angry or shout at the patient - it is not easy being ill and taking tablets for several months. Everyone gets frustrated sometimes.
Refer all complications and side effects to the health worker.	x Do not treat side effects.

Managing Household Contacts – Health worker

MANAGING HOUSEHOLD CONTACTS – at a home visit by the H/W (*please ask for the team responsible for household contact investigation in your facility or DHMT*)

- All household contacts of a sputum smear-positive patient are screened by asking questions about cough and other symptoms.
- The following two types of the household members are identified and called to the diagnostic centre for further assessment and/or management:
  - √ 6 years or more old with symptoms suggestive of tuberculosis, and
  - √ Less than 6 years old, regardless of symptoms of tuberculosis
- The household contacts of sputum smear positive cases are screened for symptoms and referred to the diagnostic centre, as follows:

Household Contact	Screening	Management
Adult	Chest symptoms (cough > 2 weeks or other TB symptoms)	Arrange sputum smears
Child	No TB symptoms Prior BCG? (0-6 yrs only)	Reassure Give BCG (if no prior BCG)
	History of cough of 2-3 weeks or more, or fever, or weight loss	Refer to Medical Officer, or Paediatrician if available
Child breast fed by smear positive mother		√ Treat mother √ Protect child with INH (10mg/kg) for 6 month √ Continue breast feed √ At completion of 6 months, give BCG if not already given.

- **If known to be HIV positive** ask about disclosure to the partner or chosen relative(s), and advise on the benefit of HIV testing for partner.

Follow-up visit – Health Worker

FOLLOW-UP OF TB PATIENT AT TREATMENT CENTRE

This is done by the Treatment Centre Health Worker

The patient will be reviewed at the Treatment Centre every month except for when he/she attends the Diagnostic Centre at months 2 (3), 5 and 6 (8). Ideally, the Treatment Supporter should attend as well. The patient should take the treatment support card with him/her.

Schedule for Drug Treatment and Follow-up Sputum Examinations (pulmonary cases only)

Patient Group	1	2	3	4	5	6	7	8
New smear-positive pulmonary	■ ■ ■ ■ ■ ■		• ····· if SM+ Gene Xpert culture and DST		• ····· if SM+ Gene Xpert culture and DST	• ····· if SM+ Gene Xpert culture and DST		
New smear-negative pulmonary	■ ■ ■ ■ ■ ■		• ····· if SM+ Gene Xpert culture and DST		·····	·····		
Previously treated	■ ■	■ ■	• ■ ■ if SM+ Gene Xpert culture and DST	■ ■	• ····· if SM+ Gene Xpert culture and DST	·····		• ····· if SM+ Gene Xpert culture and DST
Child	• ■ ■ ■	• ■ ■ ■	····· if SM+ Gene Xpert culture and DST		·····	·····		

[■ ■ ■ ■] Intensive Phase of Treatment · Sputum smear microscopy

[·····] Continuation phase of treatment SM+ Sputum smear positive

Interpretation of sputum results at the end of intensive phase:
Smear at end month 2 for all new pulmonary TB patients, and end of month 3 for all previously treated patients.

Sputum result at registration	Smear result at end of intensive phase	Management
Smear positive Smear negative	Negative	➢ Start continuation phase
Smear positive Smear negative	Positive	➢ Start continuation phase ➢ Send 2 Early Morning sputum for culture and DST if smear is positive at month 3 ➢ Review patient with DST results in one (1) month
Smear negative	Positive	Check with laboratory for clerical errors. If the patient was truly smear negative on registration but is smear positive at the end of intensive phase then: ➢ declare treatment failure. Enter outcome on TB Treatment Card and on TB03 ➢ re-register as retreatment case and start retreatment regimen ➢ review supervision procedures ➢ send 2 EM sputum for DST ➢ Review patient and DST result in one (1) month

NB: All patients that were diagnosed based on GeneXpert will do final GeneXpert at the end of the treatment

Remember to demonstrate that you care and respect the patient. Speak clearly and encourage the patient.

Ask:

- Do you have any problems with your TB treatment?

- Are you taking your tablets daily? Look at the Treatment Support card and congratulate for treatments taken. Discuss any missed or unobserved treatments. If the Treatment volunteer is a relative check that they have seen the CHO weekly.

- Do you have any symptoms/complaints? Discuss any symptoms and examine as necessary. Remember symptoms may be due to TB illness that will improve as treatment continues. Encourage the patient to continue treatment. Symptoms could also be side-effects or due to co-existing illness such as HIV disease. Check the table below for symptoms and the appropriate management

Interpretation of sputum results at the end of the continuation phase:
i.e. at 6 months for all new patients; at 8 months for retreatment cases

Smear result at end of continuation phase	Category of patient	Management
Smear negative	All new cases and previously treated cases	➢ Declare patient cured. Enter outcome on TB Treatment Card and on TB03. Congratulate patient
Smear Positive: (Must confirm result by repeat smears) 2 EM sputum specimens	Children	➢ Declare patient treatment completed. Enter outcome on TB03. Congratulate patient
	New cases	➢ Declare patient treatment failure. Enter outcome on TB Treatment Card and on TB03. ➢ Re-register as a re-treatment case on TB03 and start retreatment. Regimen.
Smear Positive: (Must confirm result by repeat smears) 2 EM sputum specimens	New cases	➢ Review supervision procedures ➢ Send 2 EM sputum for culture and DST
	Previously treated patients	➢ Declare treatment failure. Enter outcome on TB Treatment Card and on TB03. ➢ Send 2 EM sputum for culture and DST ➢ Stop all treatment. ➢ Refer to MDR TB specialist.

Manage side-effects of drugs according to the following guidelines:

If patient has a side-effect:	Then Manage as follows:
Minor Side-Effects Anorexia, nausea, abdominal pain Joint pains Burning sensation in the feet Itching of skin*	Continue anti-TB drugs and: advise to take drugs last thing at night Aspirin Pyridoxine 100 mg daily Anti histamine If no response refer
Major Side-Effects Skin rash Deafness (confirm this is not due to ear wax) Dizziness (vertigo & nystagmus) Jaundice (yellow skin or eyes) Difficulty with vision (other causes excluded) Vomiting repeatedly** Shock, purpura, acute renal failure***	Stop anti-TB drugs immediately. Refer to Diagnostic Centre

**Vomiting repeatedly is a problem because the drugs are not being absorbed. Vomiting with confusion is very serious because it is a sign of liver failure. Refer a vomiting patient to a physician.
***If orange/ red urine then reassure the patient that this is normal for the drug

Manage other symptoms as appropriate (Remember to consider co-existing HIV infection):

Symptoms	Manage as follows
Weight loss. Consider: • *Poor compliance* • *Difficulty eating* • *Recurrent diarrhoea*	• *Repeat education on TB/ HIV and DOT, rule out other associated illness such as diabetes* • *Check mouth for candida (white patches on a red background which do not scrape away with the examining spatula) – give anti fungal suspension e.g. nystatin* • *See below*
Frequent recurrent diarrhoea	• *Advise about ORS, clean water and sanitation, maintaining food intake.* • *Offer HIV testing and counselling and refer to physician if positive (HIV clinic).*

Transfer details of compliance from Treatment Support Card onto TB Treatment Card. **Record** problems and solutions in space provided on TB Treatment Card.

Record date and place of next visit on Treatment Support Card. Give sputum container to patient and remind him/her to when to bring sputum to the diagnostic centre for examination

Identification of Patients at Risk of Defaulting and Default Prevention

Identify patient who have missed appointments and bring them back

- If patient misses two days of treatment, the treatment supporter should:
  - ☞ visit the patient and convince/ help him to continue treatment without interruption, but if this fails, he/ she will
  - ☞ Inform the health worker
- The health worker visits every 4 weeks, and checks adherence, if poor,
  - ☞ Discuss with the patient and try to convince/ help the patient, but if no effect
  - ☞ Discuss with the family member(s) to try to convince/help the patient, but if no effect then
  - ☞ Inform the DTC
- The treatment centre health worker should follow-upon the patient if he/she fails to attend the monthly review.
  - ☞ Contact the ITC or DTC to visit, and if this fails then contact the RTC
- If the patient returns after interruption of more than **4 weeks,** then send a **sputum** specimen to the laboratory

Follow-up at Diagnostic/Treatment Centre - Clinician

FOLLOWING-UP TB PATIENT AT TREATMENT CENTRE monthly

Ask about and examine the patient's general health including weighing

- ☞ If difficult breathing or is acutely ill, give urgent treatment and refer
- ☞ Treat for common infections, including HIV-related
- ☞ If HIV testing and Counselling has not yet been done then offer it to the patient

- Explain the benefits of ART and start Co-Trimoxazole preventive treatment of 960mg (2 tablets of 480 mg) daily
- Review and respond to the side effects, if any reported or found
- Review adherence to treatment from the TB treatment card, and if a problem, take action, also ask about Co-Trimoxazole adherence
  At 2 (3), 5 and 6 (8) months, when sputum smears & treatment review are required:
- Get sputum examined, review the results and manage as follows:

Starting continuation phase of treatment:

Patient Treatment group	Sputum result at end of 2 (or 3) months	Management
New patient	Negative at end of 2 months	Start continuation phase treatment
	Positive at end of 2 months	Start continuation phase treatment
Previously treated patient	Negative at end of 3 months	Start continuation phase treatment
	Positive at end of 3 months	Ask for Culture & DST & Refer to MDR expert or TB Referral clinician to manage as per National guidelines

Managing Treatment Interruption

It is important that patients who have missed treatment or appointments are identified quickly and brought back. The treatment supporter, CHO, treatment centre health worker, diagnostic centre health worker, ITC, TB co-ordinator ,and DDHS all have important roles to play.

The treatment supporter/volunteer should:

1. Recognise if the patient misses 2 days of treatment and visit the patient to try to resolve the problem - if they cannot they must report to the CHO, clinic nurse or ITC as soon as possible.

The treatment centre health worker should:

1. Review the treatment support card monthly and count doses missed that month, and since starting treatment. If treatment has been missed the patient should be managed as appropriate

2. Identify if a patient has failed to attend monthly reviews (by checking the TB01 box file every month). If such a patient is identified the health worker should:

    - Send a message to the CHO to visit the patient and report back within 3 days.
    - Visit the patient, if possible.
    - Inform the ITC and efforts being made to bring the patient back.

3. Take appropriate action if informed by a treatment supporter that a patient is missing treatment.

    - Visit patient to discuss problems (if possible) or
    - Inform ITC of the problem and request that they visit.

The diagnostic centre TB co-ordinator should:

1. Review the treatment support card at every monthly review and count how many doses have been missed that month,

and since starting treatment. If treatment has been interrupted this should be noted and patient on return counselled appropriately.

2. Act appropriately to bring back any patient that the treatment centre or treatment supporter/CHO has identified as defaulting from treatment or follow up. That is:

   - Co-ordinate with the CHO in the area
   - Visit the patient to discuss treatment, defaulting and possible solutions
   - Write letter to patient (where feasible) requesting they attend for appointment
   - Any other feasible way, suitable to local circumstances.

3. Identify if a patient has failed to attend for periodic review at the diagnostic centre, i.e. at the end of intensive phase, month 5 and at the end of continuation phase and:

   - Send a message to the CHO to visit the patient and report back within 3 days.
   - Inform the treatment centre and request information about the patient.
   - Personally visit the patient, if possible.

The TB co-ordinator can be contacted by:

- Telephone/text messaging
- Radio from the treatment centre
- Letter from the treatment centre by transport
- Verbal messages

A GUIDE TO MANAGING TB PATIENT WITH INTERRUPTED TREATMENT

<table>
<tr><td>Interruption for
< 1month</td><td colspan="3">Interruption for 1-2 months</td><td colspan="2">Interruptions for 2 months or more
(defaulter)</td></tr>
<tr><td rowspan="2">Trace Patient

*Solve cause of interruption

*Continue treatment & prolong to compensate for missed doses</td><td colspan="3">*Trace Patient
*Solve cause of interruption
*Do 2 sputum smears and continue treatment while waiting for results
*Treat results as follows:</td><td colspan="2">*Trace Patient
*Solve cause of interruption
*Do 2 sputum smears and continue treatment while waiting for results
*Treat results as follows</td></tr>
<tr><td>Negative or EPTB
⇩</td><td colspan="2">One or both smears positive and treatment received:
⇩
< 5 months | >5months</td><td>Negative or EPTB
⇩</td><td>One or both smears positive and treatment received:
⇩</td></tr>
<tr><td>*Continue treatment and prolong it to compensate for missed doses</td><td>*Continue treatment and prolong it to compensate for missed doses</td><td>New Pt: Start a Retreatment regimen

*Previously Refer! May bean MDR Pt</td><td>Clinical decisions on individual basis whether to restart, continue or no further treatment</td><td>If initially New Pt:

*Start a first line Retreatment regimen: *Do DST.</td><td>If initially Previously treated Pt:

* Refer! May need sputum..
*Culture
*GeneXpert
*DST</td></tr>
</table>

Declaring Treatment Outcomes

The health facility worker will do these:

- Treatment outcomes is decided at the end of the treatment period for most patients. However, for a few patients it can be decided earlier (for example transfers out or deaths).
- The treatment outcome must be recorded on the treatment card (TB01) and institutional register (TB03).
- These outcomes are used to monitor the TB programme.

There are 6 treatment outcomes:

- **Cured:** A patient whose sputum smear or culture positive at the beginning of treatment and has completed the treatment, and is sputum smear or culture negative in the last month of treatment and on at least one previous occasion
- **Completed:** A patient who completed treatment but who does not have a negative sputum smear or Culture results in the last month of treatment and on at least one previous occasion
- **Treatment Failure:** A patient whose sputum smear or culture is positive at 5 month or later during treatment. Also included in this definition are patients found to have MDR strains at any point of time during the treatment weather they are smear negative or positive.
- **Transferred Out:** A patient who is transferred to another recording and reporting treatment centre but whose treatment outcome is unknown
- **Defaulted:** A patient whose treatment was interrupted for two consecutive months or more.
- **Died:** Patient who dies for any reason during the course of treatment
- **Treatment Success:** A sum of cured and completed treatment

The DTC will record the treatment results from all the institutional registers into the district TB register. He/she shall also prepare quarterly returns for all cases. These are very important for monitoring the TB programme locally and nationally.

NB: Please note TRANSFER OUT IS NO LONGER ACCEPTED AS TREATMENT OUTCOME. PLEASE ENSURE YOU HAVE THE FINAL TREATMENT OUTCOME TO REPORT ON

MONITORING CARE DELIVERY AT HEALTH FACILITIES

- Each quarter, the case finding, sputum conversion and treatment outcome reports will be prepared by DTC. These will be discussed with the DDHS and sub district In-charges. A report will then be sent to the Regional and National TB Programme Manager.