Update on Management of DR TB

Definitions

Presumptive MDR-TB

- **A patient suspected of drug-resistant TB, based on RNTCP criteria for submission of specimens for drug-susceptibility testing**

MDR-TB Case

- **A TB patient:**
  - **whose sputum is culture positive for *Mycobacterium tuberculosis* and**
  - **is resistant *in-vitro* to isoniazid and rifampicin with or without other anti-TB drugs**
  - **based on DST results from an RNTCP-certified C & DST Laboratory**

Definitions

XDR-TB Case

- **A MDR-TB patient** whose recovered *M. tuberculosis* isolate is resistant to
  - **at least isoniazid, rifampicin,**
  - **a fluoroquinolone (ofloxacin, levofloxacin, or moxifloxacin) and**
  - **a second-line injectable anti-TB drug (kanamycin, amikacin, or capreomycin)**
- at a RNTCP-certified Culture & DST Laboratory.

Case finding strategy

Presumptive MDR-TB

- MDR-TB suspect should be identified based on pre-decided suspect criteria, which are:
  - **All failures of New TB cases**
  - **Previously treated (PT) Smear +ve cases who remain S+ve at 4th month onwards**
  - ***All Pulmonary TB cases who are contacts of known MDR TB case.***
  - ***All Smear +ve* Previously treated *Pulmonary TB cases at diagnosis***
  - ***Any Smear +ve follow up in New or PT cases***
  - ***Any Smear -ve* Previously treated *Pulmonary TB cases at diagnosis***
  - ***HIV infected presumptive TB cases, HIV co-infected TB cases***

Diagnostic Technology

The different diagnostic technologies are:

1. Solid C-DST (LJ)
   - **DST is performed for streptomycin (S), isoniazid (H), rifampicin (R) and ethambutol (E) only**
2. Liquid C-DST (MGIT)
3. Line Probe Assay (LPA)
   - **DST is performed for Isoniazid (H) and Rifampicin (R) only**
4. Rapid molecular automated nucleic acid amplification test (NAAT) (Gene-Xpert)
   - **DST is performed for Rifampicin (R) only**

Sputum Collection and Transport

For diagnosis : Two sputa samples collected, ideally,

- **an early morning sample**
- **Supervised spot sample**

For follow up : Only one sample collected (preferably morning)

- **Sputa collected in Falcon tubes**
- **Samples can be collected and transported in cold chain as soon as possible (maximum within 72 hours to the lab)**
- **Consists of recently discharged material from bronchial tree**
- **Volume of 3-5 ml of mucoid or muco-purulent material**

In special situation:

- Collecting 2 spot specimens with a gap of at least one hour (60 minutes)
  - **if the patient is coming from a long distance or**
  - **there is a likelihood that the patient may default to give a second specimen**

Referral of a confirmed MDR-TB case to indoor facility at the DR-TB Centre

- Once confirmed, the MDR-TB patients and those with any Rifampicin resistance are referred to the RNTCP designated DR-TB Centre:
  - **with their DST result *(Annexure I)***
  - **Request for Category IV treatment form *(Annexure V)***
- MDR-TB patients referred to the RNTCP designated DR-TB Centre for:
  - **Pre-treatment evaluation, and**
  - **Initiation of Regimen for MDR TB**

Pre-Treatment Evaluation

The following investigations/assessments are done at DR-TB Centre before initiation of Treatment for MDR patients

1. **Detailed history (including screening for mental illness, drug/alcohol abuse etc.)**
2. **Weight**
3. **Height**
4. **Complete Blood Count**
5. **Blood sugar to screen for Diabetes Mellitus**
6. **Liver Function Tests**
7. **Blood Urea and S. Creatinine to assess the Kidney function**
8. **TSH levels to assess the thyroid function**
9. **Urine examination – Routine and Microscopic**
10. **Pregnancy test (for all women in the child bearing age group)**
11. **Chest X-Ray**
12. **HIV counseling and testing**
13. **Counseling** – to patient, family members, Females on **family planning**

Pre-Treatment Evaluation for XDR-TB

For XDR-TB Patients, Pre-treatment evaluation will be done as for MDR-TB as well as:

- **an ECG,**
- **Serum electrolytes, and**
- **Surgical evaluation**

At the DR-TB Centre in-door facility

- DR-TB Centre committee will consider all the clinical and biochemical results before starting the patient on an RNTCP Regimen for MDR-TB.
- The patient will then be counselled and their treatment card opened.
- If clinically appropriate the patient may be discharged 7 days after the treatment is initiated, or later if appropriate.

RNTCP Category IV Regimen

The treatment is given in 2 phases for MDR-TB patients

IP : It consists of 6 drugs in Intensive Phase for 6-9 months

- Kanamycin, Levofloxacin, Ethionamide, Pyrazinamide Ethambutol Cycloserine

CP: It consists of 4 drugs in Continuation Phase for 18 months

- Levofloxacin, Ethionamide, Ethambutol Cycloserine
- [Reserve/Substitute drugs: PAS, Mfx, Cm]

RNTCP Category V Regimen

Intensive Phase-

- 6-12 Months
- **Cm, PAS, Mfx, High dose-H, Cfz, Lzd, Amx/Clv**

Continuation Phase-

- 18 Months
- **PAS, Mfx, High dose-H, Cfz, Lzd, Amx/Clv**

Dosage and Weight Band Recommendations

- **Drug-dosages for Treatment are provided as per weight band**

- **MDR patient : There are 5 weight bands drug-dosages recommended for providing treatment:**
  - **Less than 16Kg**
  - **16-25 Kg**
  - **26-45 kg**
  - **46-70 Kg**
  - **More than 70 Kg**
- **XDR patient : only 2 weight bands**
  - **less than 45**
  - **more than 45 kg**

Regimen for Cat IV

For Regimen of MDR TB

S.No	Drugs	16-25 Kg	26-45 Kg	46-70 Kg	>70kg
1	Kanamycin(500&1G) (IP)	500 mg	500 mg	750 mg	1G
2	Levofloxacin (250 & 500mg) (IP/CP)	250 mg	750 mg	1000 mg	1000mg
3	Ethionamide (250mg) (IP/CP)	375 mg	500 mg	750 mg	1000mg
4	Ethambutol (200 & 800mg) (IP/CP)	400 mg	800 mg	1200mg	1600mg
5	Pyrazinamide (500 & 750mg) (IP)	500 mg	1250 mg	1500 mg	2000mg
6	Cycloserine (250mg) (IP/CP)	250 mg	500 mg	750 mg	1000mg
7	PAS (80% Bioavailability)	5 gm	10 gm	12 gm	12gm
8	Pyridoxine (100mg) (IP/CP)	50 mg	100mg	100mg	100mg

[2] *In case of PAS with 60% weight/volume the dose will be increased to 7 gm (16-25 Kg); 14 gm (26-45 Kg) and 16 gm (> 45 Kg)*

Regimen for Cat V

For Regimen of XDR TB

S.No	Drugs	< 45kg	>45kg
1	Capreomycin (750&1G) (IP)	750 mg	1G
2	Moxifloxacin (400mg) (IP/CP)	200 mg	400mg
3	Isoniazid (300mg) (IP/CP)	600mg	900mg
4	Clofazimine (200 mg) (IP/CP)	200 mg	200mg
5	Linezolid (600mg) (IP/CP)	600 mg	600mg
6	Amoxyclav (875/125mg) (IP/CP)	875/125 mg (BD)	875/125 mg (BD
7	PAS (80% Bioavailability)	10 gm	12gm
8	Pyridoxine (100mg) (IP/CP)	100 mg	100mg
Reserve/Substitute Drug			
1	Clarithromycin (500mg)	500mg (BD)	500mg (BD)
2	Thiacetazone (150mg)	150mg	150mg

Treatment strategy

- If a patient **Gains or Loses** 5 kgs or more in weight during treatment and crosses the weight-band range
  - the DOTS–Plus site committee may consider moving the patient to the higher weight-band drug dosages
- The new higher/lower dosages are provided whenever the patient is due for the next supply of drugs in the normal course of treatment and not as soon as change of weight is noted
- Separate Dosages of 2nd line drugs for MDR TB cases in paediatric age group weighing **< 16 Kg**
- Additional dosages of some 2nd line drugs for MDR TB cases in patients weighing **> 70 kg**

Transfer of MDR TB patients

Patient migrating to any other district NOT being served by the same DR-TB Centre:

- Patient may be formally transferred out:
  - **with 7 days of drugs for transit period where he/she proposes to move**
  - **in consultation with the DTO of that district, and**
  - **under intimation of the DR-TB Centre.**
- Patient at the DR-TB Centre catering to the receiving district:
  - **Registered with a new PMDT TB number**
  - **Old PMDT TB number mentioned in the remarks column for future reference.**
  - **The patient will be continued on the same treatment on the new PMDT TB numbe**
- Following records of patient from the DR-TB Centre will be sent to the district and the DR-TB Centre receiving the patient by the DTO who initiated the transfer out process:
  - **the referral for treatment form**
  - **the copies of the PMDT treatment cards**
  - **a transfer note**
  - **a copy of the clinical information booklet**
- The details of the patient will be updated in the PMDT treatment register at the DR-TB Centre for future reference
- Receiving DTO / DR-TB Centre to send a feedback to former district / DR-TB centre

Treatment Duration for Regimen for MDR-TB

- Total duration of treatment: 24 – 27 months
- Duration of IP: 6 – 9 months
- Duration of IP: 18 months
- IP to CP:
  - Review patients after 6 months of treatment
  - treatment changed to CP if the **4th** **or** **5th** month culture result in **solid** **or** **liquid** culture is negative respectively

Treatment Procedure

- All drugs given in a single daily dosage under directly observed treatment (DOT)
- All patients receive drugs under direct observation on 6 days of the week
- On the 7th day (Sunday) the oral drugs will be administered unsupervised whereas injection kanamycin will be omitted
- If intolerance occurs to the drugs, Ethionamide, Cycloserine and PAS may be split into two dosages
  - morning dose administered under DOT
  - evening dose will be self-administered

Monitoring Process during Treatment

It is to be done by MO:

- **Clinical Evaluation:**
  - At monthly interval – during IP
  - At 3 monthly interval – during CP (until the end of treatment)
  - assess clinical, microbiologic, and radiologic response to treatment
- **Screening of patients**
  - For clinical improvement
  - For adverse reactions
- **Body weight monitoring at every visit**

Follow-Up Investigations during Treatment

- **Chest radiograph:**
  - during pre-treatment evaluation
  - At the end of IP
  - At the end of treatment
  - When clinically indicated
- **Serum Creatinine**
  - every month for the first 3 months
  - every 3 months thereafter till patient is receiving inj Kanamycin
- **Liver / Thyroid function tests**
  - as & when indicated clinically

Follow up schedule

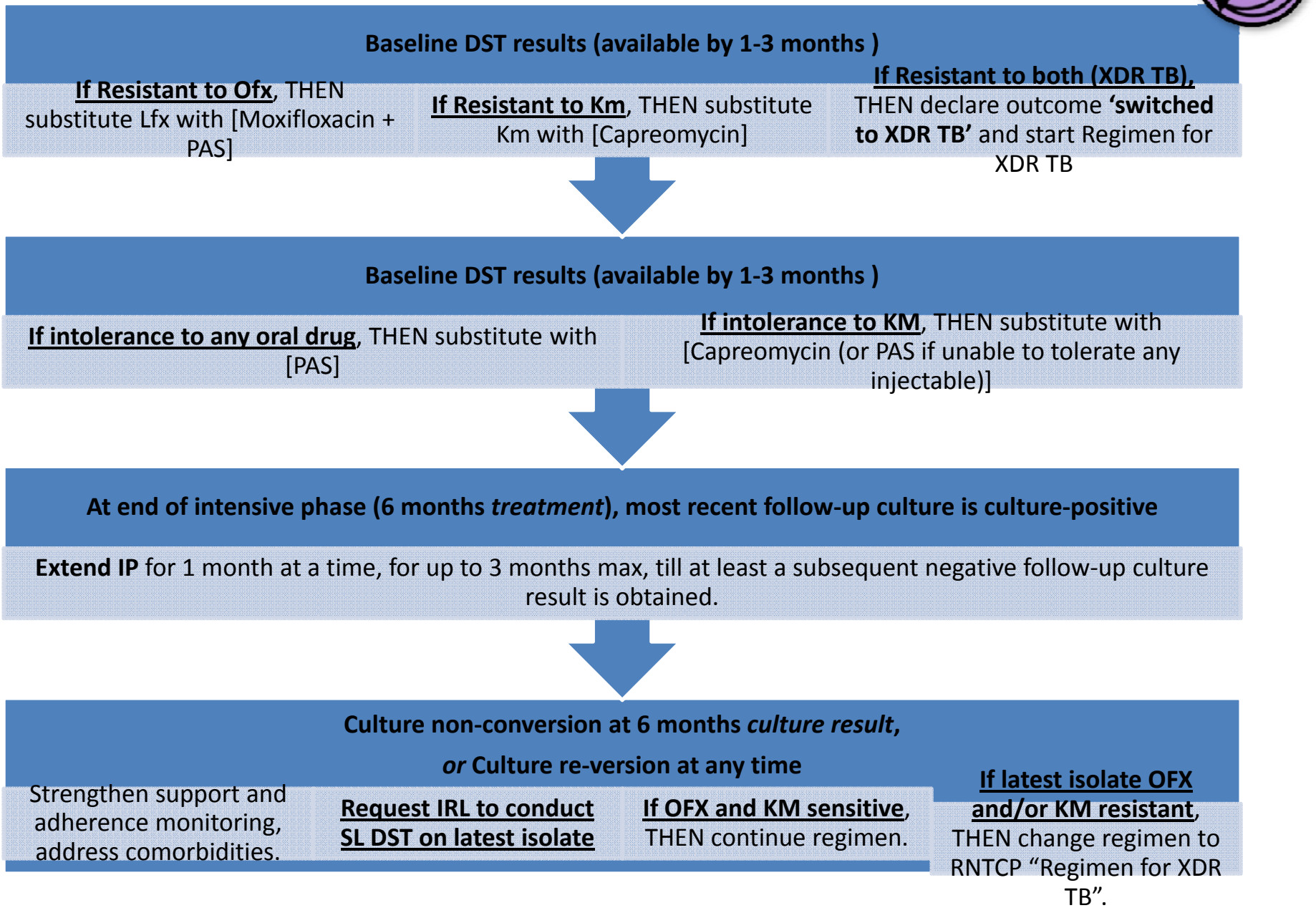
	IP monthly follow up examinations				Extension of IP (1-3 months)			CP Quarterly follow up examination in months						
	1st FU	2nd FU	3rd FU	4th FU				1 qtr		II qtr	III qtr	IV qtr	V qtr	VI qtr
No IP extension →	3	4	5	6	-	-	-	7	9	12	15	18	21	24
IP extension 1 month →	3	4	5	6	7	-	-	8	10	13	16	19	22	25
IP extension 2 months →	3	4	5	6	7	8	-	9	11	14	17	20	23	26
IP extension 3 months →	3	4	5	6	7	8	9	10	12	15	18	21	24	27

- 1 sputum sample collected and examined by smear and culture at least 30 days apart from the 3rd to 7th month of treatment and at 3-monthly intervals from the 9th month onwards till the completion of treatment
- Wherever available, follow-up sputum culture should be done using liquid culture for *all IP follow-up cultures* and for the last 6 months of CP

1 specimen for culture will be collected and transported in Falcon tubes in cold chain

How to identify presumptive XDR TB case

- DRTB case on cat IV termed as ‘presumptive XDR case’ when
  - No culture conversion at 6th month i.e. pt. continues to be culture +ve
  - Culture reversion (culture negative pt. becomes culture +ve)
  - Failure of Cat IV


Baseline DST results (available by 1-3 months)
If Resistant to Ofx, THEN substitute Lfx with [Moxifloxacin + PAS]
If Resistant to Km, THEN substitute Km with [Capreomycin]
If Resistant to both (XDR TB), THEN declare outcome 'switched to XDR TB' and start Regimen for XDR TB
Baseline DST results (available by 1-3 months)
If intolerance to any oral drug, THEN substitute with [PAS]
If intolerance to KM, THEN substitute with [Capreomycin (or PAS if unable to tolerate any injectable)]
At end of intensive phase (6 months treatment), most recent follow-up culture is culture-positive
Extend IP for 1 month at a time, for up to 3 months max, till at least a subsequent negative follow-up culture result is obtained.
Culture non-conversion at 6 months culture result,
or Culture re-version at any time
Strengthen support and adherence monitoring, address comorbidities.
Request IRL to conduct SL DST on latest isolate
If OFX and KM sensitive, THEN continue regimen.
If latest isolate OFX and/or KM resistant, THEN change regimen to RNTCP "Regimen for XDR TB".

RNTCP Category V Regimen

- The treatment is given in 2 phases for XDR-TB Patients
- It consists of 7 drugs in Intensive Phase for 6-12 months
  - Capreomycin, Moxifloxacin,
    Clofazimine, High dose INH,
    Linezolid PAS Amoxyclav
- It consists of 6 drugs in Continuation Phase for 18 months
  - PAS, Moxifloxacin,
    Clofazimine, High dose INH,
    Linezolid Amoxyclav

[Reserve/Substitute drugs: Clarithromycin, Thiacetazone]

Regimen for XDR TB dosage and weight band recommendations

Drugs	Dosage/day	
	≤ 45 Kgs	> 45 Kgs
Inj. Capreomycin (Cm)	750 mg	1000 mg
PAS	10 gm	12 gm
Moxifloxacin (Mfx)	400 mg	400 mg
High dose INH (High dose-H)	600 mg	900 mg
Clofazimine (Cfz)	200 mg	200 mg
Linezolid (Lzd)	600 mg	600 mg
Amoxyclav(Amx/Clv)	875/125 mg BD	875/125 mg BD
Pyridoxine	100 mg	100 mg
Reserve/Substitute drugs		
Clarithromycin (Clr)	500 mg BD	500 mg BD
Thiacetazone (Thz)#	150 mg	150 mg

Depending on availability, not to be given to HIV positive cases

Reserve/Substitute drugs:
{Clarithromycin, Thiacetazone}

The reserve/substitute drugs would be used in the following conditions:

- In case the patient was on PAS, PAS will be replaced with one of the reserve drugs in the regimen for XDR TB
- If the patient is unable to tolerate one or more of the drugs
- If the patient is found to be resistant to Capreomycin

Duration of Regimen for XDR TB

The Regimen for XDR TB would be of 24-30 months duration, with 6-12 months Intensive Phase (IP) and 18 months Continuation Phase (CP).

The change from IP to CP will be done only after achievement of culture conversion i.e. 2 consecutive negative cultures taken at 48 least one month apart.

In case of delay in culture conversion, the IP can be extended from 6 months up to a maximum of 12 months.

In case of extension, the DR-TR Centre Committee, which will be responsible for initiating and monitoring the Regimen for XDR TB, can decide on administering Capreomycin injection intermittently (3 times/week) for the months 7 to 12.

No difference to follow-up Sputum Culture for patients on regimen for MDR TB and XDR TB

XDR TB : Differences in Management

- Admission preferably for one month in DR TB ward (at least for a week)
- In addition to routine PTE
  - Serum Electrolytes
  - ECG &
  - Surgical consultation is to be taken

Follow up of the patient

Direct observation of treatment remains even more crucial, as this is the last chance at successful treatment that these patients will have. Because of the use of drugs with different toxicity profiles, XDR TB requires more intensive monitoring during follow-up.

Complete Blood Count with Platelets Count:

- weekly in first month, then monthly to rule out bone marrow suppression and anaemia as a side effect of Linezolid

Kidney Function Test-

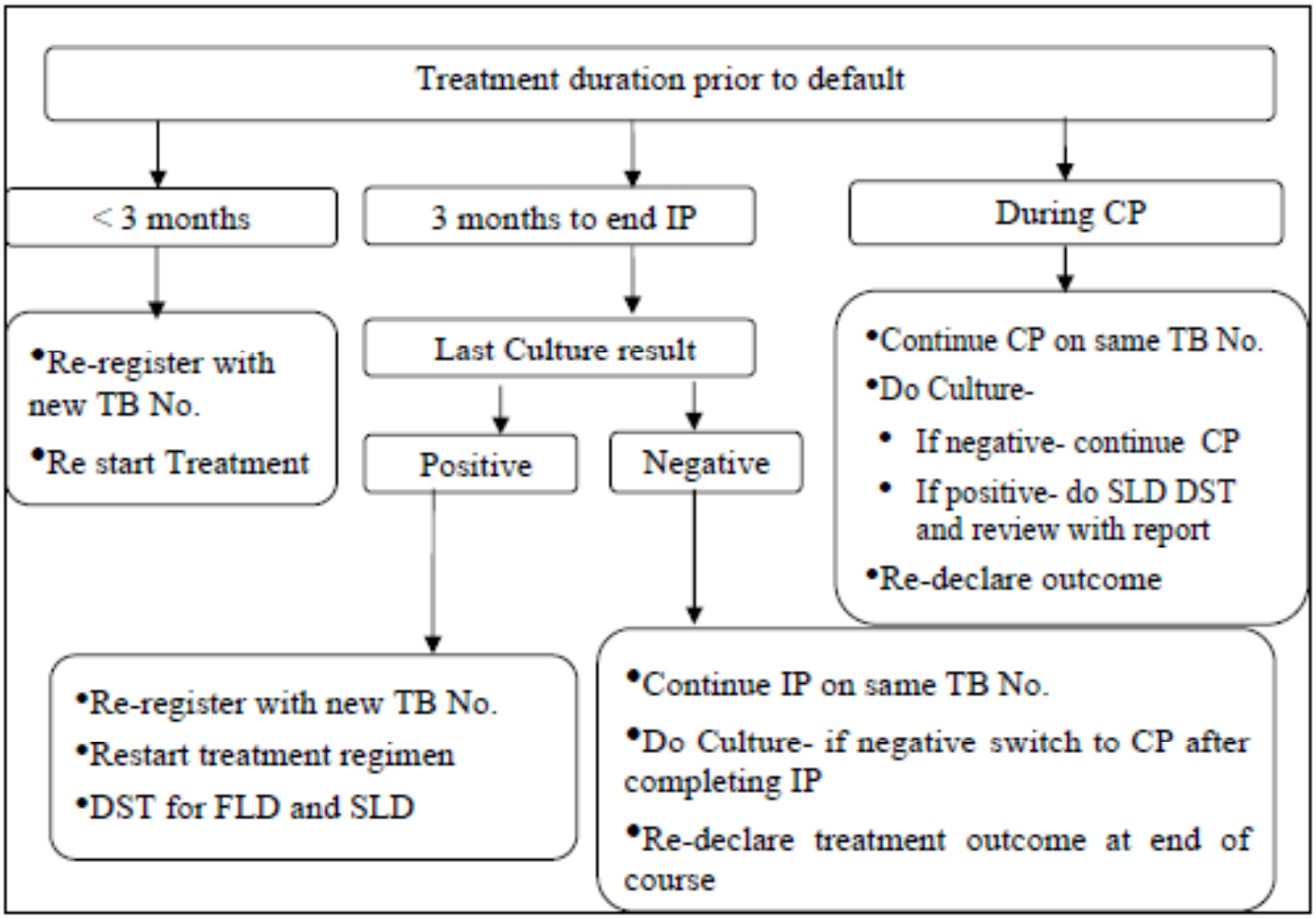
- monthly creatinine and addition of monthly serum electrolytes to the monthly creatinine during the period that Inj Capreomycin is being administered

Liver Function Tests: monthly in IP and 3 monthly during CP

CxR every 6 months

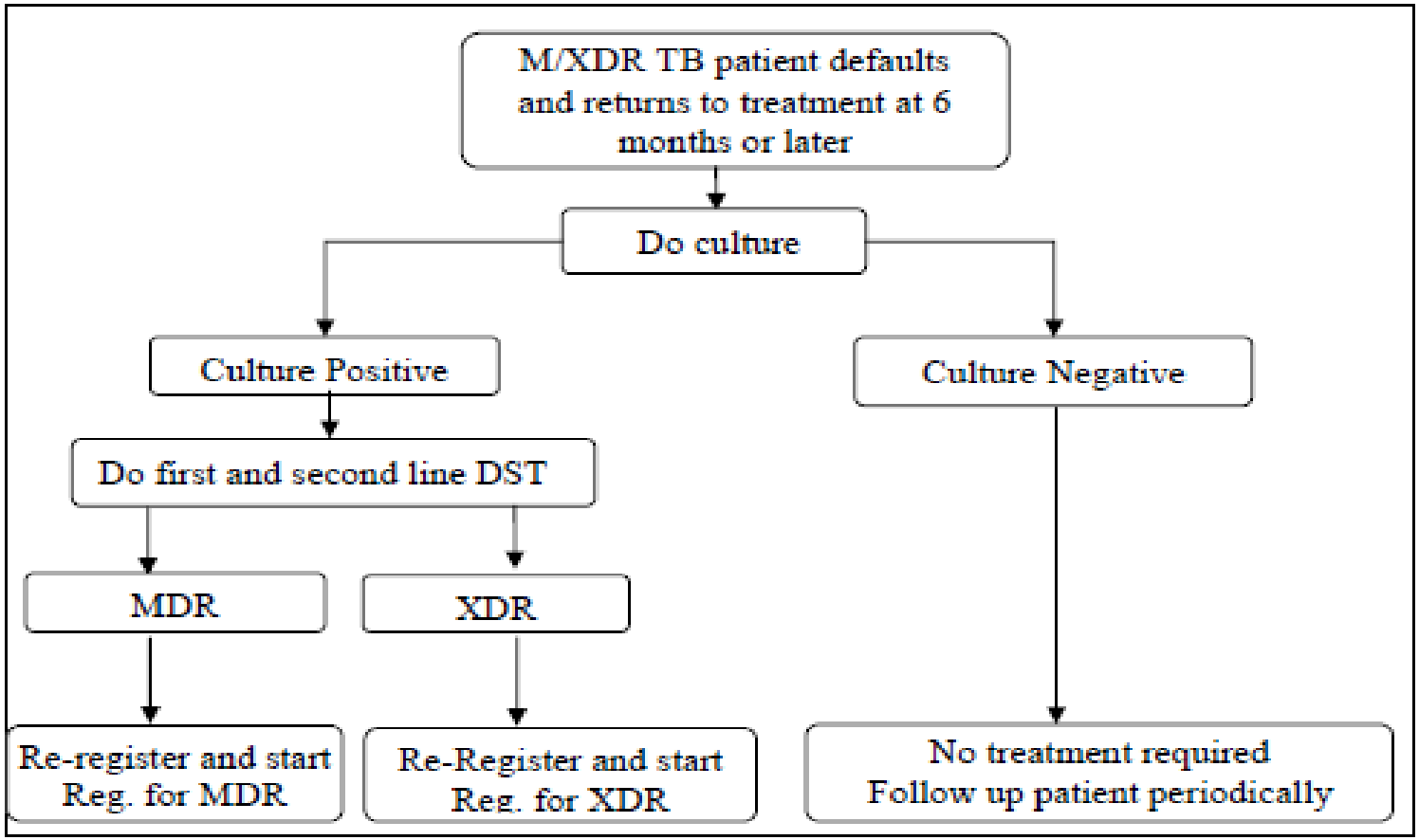
Management of treatment interruptions and default for M/XDR TB patients who return within 6 months

Figure 7.2: Algorithm for management of M/XDR patients who default and return for treatment within 6 months of discontinuing Regimen for M/XDR TB



Management of treatment interruptions and default for M/XDR TB patients who return after 6 months

Figure 7.3: Algorithm for management of M/XDR patients who default and return for treatment after 6 months



Treatment outcome - definitions

1. **Cure**
2. **Treatment completed**
3. **Died**
4. **Treatment failure**
5. **Treatment default**
6. **Transfer out**
7. **Treatment stopped due to adverse drug reactions**
8. **Treatment stopped due to other reasons**
9. **Switched to Category V treatment**
10. **Still on treatment:**

Adverse effects of 2nd line Anti-TB drugs

- **Gastrointestinal disturbances**
  - **Diarrhoea, Nausea, vomiting, and abdominal pain**
- **CNS Disorders-**
  - **Seizures / Fits**
- **Difficulty in breathing**
- **Anxiety, Hallucinations, depression, altered behaviour and suicidal tendencies**
- **Visual disturbance - Blurring of vision , pain in the eyes, disturbance in colour vision**
- **Ototoxicity- Ringing in the ears , problems with hearing, Dizziness**
- **Numbness, Tingling, Pain in hands and feet**
- **Unusual bruising or bleeding**
- **Joint pains**
- **Jaundice (yellow eyes or skin, Dark coloured urine)**
- **Skin rashes with or without itching**
- **Nephrotoxicity - Puffiness of face, swelling on the feet , decreased urine output**

Information system and data management

- Electronic HMIS being established
- Records and Reports
  - PMDT TB Register, Culture & DST Register, Identity Card and Treatment Card
  - Quarterly reports on Case Finding, Culture Conversion and Treatment Outcome
  - Six Monthly and twelve monthly Interim report on outcome
  - Drug and lab consumables
- All patients initiated on treatment will be accounted for outcomes
- Project monitoring and evaluation
  - Supervision and regular monitoring of activities

RNTCP Request for Culture and Drug Sensitivity Testing

(Annexure-I)

Referral No: / Date:

Nikshay ID- _ _/_ _ _/_ _/_ _/_ _ _ _

IRL ID- _ _/_ _ _/_/_/_ _/_ _ _ _

PMDT ID- _ _/_ _ _/_/_/_ _/_ _ _ _ _

Patient Information	
Patient Name	
Patient Address with landmark	
Patient Mobile No. or other Contact No	
Age:	Sex : Male / Female
Sputum-Date of collection (DD/MM/YY)	Sample 1: _____ Sample 2:_ _____
Name of referring facility (PHI/DMC/DR-TB Center/other): Tuberculosis Unit (TU): District: HIV Status: (Neg / Pos / Not Known)	

Reason for Testing	
☐ DIAGNOSIS	☐ FOLLOW-UP
MDR Suspect Criteria	PMDT Registration Number:
☐ Failure ☐ Re-treatment case S(+) at 4th month ☐ Contact of known MDR-TB case ☐ S(+) at diagnosis, re-treatment case ☐ Any follow-up S(+) ☐ S(-) at diagnosis, re-treatment case ☐ HIV/TB-case	Treatment month of Follow-up:
RNTCP TB Reg No, Category & Type: (or ☐ Not Applicable)	DR-TB Centre Name:

Molecular TB / DST Results

Test	☐ Line Probe Assay(LPA)	☐ CBNAAT		
Test validity	☐ Valid	☐ Invalid		
M. Tuberculosis	☐ Detected	☐ NOT-detected		
Rifampicin	☐ Resistant	☐ Sensitive	☐ Not Available	
Isoniazid	☐ Resistant	☐ Sensitive	☐ Not Available	

Notes:

Date tested: _____ Reported by (Name & Signature): _____

LJ/Liquid Culture results

Date received	Specimen	Specimen No.	Smear result	Culture Result * (check one)						
				Neg	Pos	1-19 col	+	++	+++	Contaminated/ other results
	A									
	B									

Notes:

Result Date : Reported by (Name & Signature):

LJ / Liquid culture DST Results: (Note: 'S' if susceptible, 'R' if resistant)

Date DST Initiated	Specimen No	S	H	R	E	Z	Km	Ofx	Eto	Other

Result Date : Reported by (Name & Signature) :

RNTCP PMDT Referral for Treatment Form — Annexure V

(Fill in duplicate. Send one copy to the respective facility receiving the patient, and keep the duplicate copy on file)

Name and address of Referring unit (District TB Centre/DR-TB Centre)_____

Email address of referring unit _____

Name of DR-TB Centre / District TB Centre to which the patient is referred_____

Name of patient _____Age _____ Sex M ❑ F ❑

Complete Address_____

Details of treatment taken by the patient at the time of diagnosis of MDR and reason for suspecting

Latest Regimen: ❑ New ❑ Previously treated ❑ MDR ❑ XDR ❑ Private Rx Latest TB No._____

Disease Classification: ❑ Pulmonary ❑ Extra Pulmonary (Site_____)

Type: ❑ New ❑ Relapse ❑ TAD ❑ Failure ❑ Others

Reason for Suspecting MDR TB:

A: ❑ Failure ❑ Re-treatment case S+ at 4th month ❑ Contact of known MDR TB case

B: ❑ S+ at diagnosis, re-treatment case ❑ Any follow up Smear +ve

C: ❑ S- at diagnosis, re-treatment case ❑ HIV TB case

Sputum Culture and DST details	Details of M/XDR TB treatment
Date of sputum collection: ____/____/___	PMDT TB number:_____
Date of culture result: ____/____/____	Name of DR-TB Centre:_____
Date of DST/LPA/CB-NAAT result: ____/____/___	Date M/XDR regimen started:_____
DST/LPA/CB-NAAT result*: S ❑ H ❑ R ❑ E ❑ O ❑ K ❑	Number of doses taken:_____

** Tick the drugs to which resistance is shown*

Date of regimen change and details of change: _____

Past Exposure to Second Line Anti TB Drugs: Drug_____ Duration_____

HIV Status: Pos / Neg / Not Known Date of CPT initiation:_____ Date of ART initiation:_____

Date of referral to DR-TB Centre / DTC: Day _____ Month _____ Year 20___

Referred for:

- ❑ Initiation of treatment
- ❑ Adverse drug reaction (give details)_____
- ❑ Transfer out (give details)_____
- ❑ Ambulatory treatment (if the patient is referred to DTC)
- ❑ Any other (give details)_____

Name and designation of the referring Doctor_____

Reminder for the health facility where the patient has been referred

Please send an email to the referring unit, informing the referring doctor of the date that the above named patient reported at the receiving health facility.

RNTCP PMDT Treatment Card Annexure VIII

Tick appropriately				
DR-TB Centre	DTC	TU	PHI	DOT Provider

Patient's Name: _____ **Name, Designation & Contact Details of DOT provider:** _____

State / District: _____ **Name of TU:** _____ **Name of PHI:** _____

Sex: M ☐ F ☐ **Age** _____ **PMDT TB Number:** _____

Date of registration: ___/___/___

Address: _____

Contact Telephone No. _____

Initial home visit: Date _____ **By** _____

DR-TB Centre: _____

Reason for Suspecting MDR TB: (Tick)
A: ❑ Failure ❑ Re-treatment case S+ at 4th month ❑ Contact of known MDR TB case
B: ❑ S+ at diagnosis, re-treatment case ❑ Any follow up Smear +ve
C: ❑ S- at diagnosis, re-treatment case ❑ HIV TB
Latest TB no., if any:

Date of Starting Monthly Box: (DD/MM/YY)

IP	1	2	3	4	5	6	7	8	9	10	11	12
CP	1	2	3	4	5	6	7	8	9			
	10	11	12	13	14	15	16	17	18			

DR-TB Centre Committee meetings – dates and decisions*

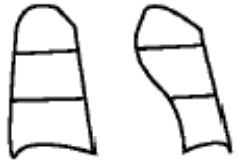
Date	Decision	Next Date

** Enter details of decisions regarding change of IP to CP, completion of Rx, severe adverse reactions, change of treatment etc.*

Patient's name: _____

Month	Culture Results		
	Date*	Sample No.	Culture
Diagnosis			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

Date of X-ray



Date of X-ray

Date of X-ray

_____

HIV Testing:

Date:_____
Result:_____
PID no._____
CPT*
ART*

(*write date of starting)

**All dates in both tables are the dates the sputum was collected from the patient*

DRUG SUSCEPTIBILITY TESTING RESULTS: Enter 'R' for Resistant 'S' for Susceptible

Date	Type of culture test (Molecular/LJ/Liquid/Other specify)	S	H	R	E		Second line drugs$ (if required)							
							O	K	Cs	Cm	PAS	Amk		

$ write the name of second line drugs

Patient's name: _____

Initial Weight (kgs): _____**Kgs** **<16kg** ☐ **16-25kg** ☐ **26- 45kg** ☐ **46-70kg** ☐ **>70kg** **Height (cm):** _____

Date of Starting Intensive Phase: _____ **Date of Starting Continuation Phase:**_____

Date of regimen change and details of change:

Date	Change in regimen	Reason

ADMINISTRATION OF DRUGS (one line per month):

Month	DAY																													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Wt (kg), Lab, X-ray

Mark in the boxes: ✓ = directly observed; (✓) = Unsupervised; O = drugs not taken

Recording of CP should start from fresh line.

Patient's name: _____

Administration of drugs (continued)

Month	DAY																													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Wt (kg), Lab, X-ray

Mark in the boxes: ✓ = directly observed; (✓) = Unsupervised; O = drugs not taken

Date and Details of adverse drug reaction and action taken	Details of default retrieval action

Treatment outcome	Tick one	Date
Cured		
Treatment completed		
Died		
Failed		
Defaulted		
Transferred out		
Treatment stopped due to adverse drug reaction		
Treatment stopped due to other reason		
Switched to Regimen for XDR TB		

Unite to
End TB
WORLD TB DAY 24TH MARCH

Thank you