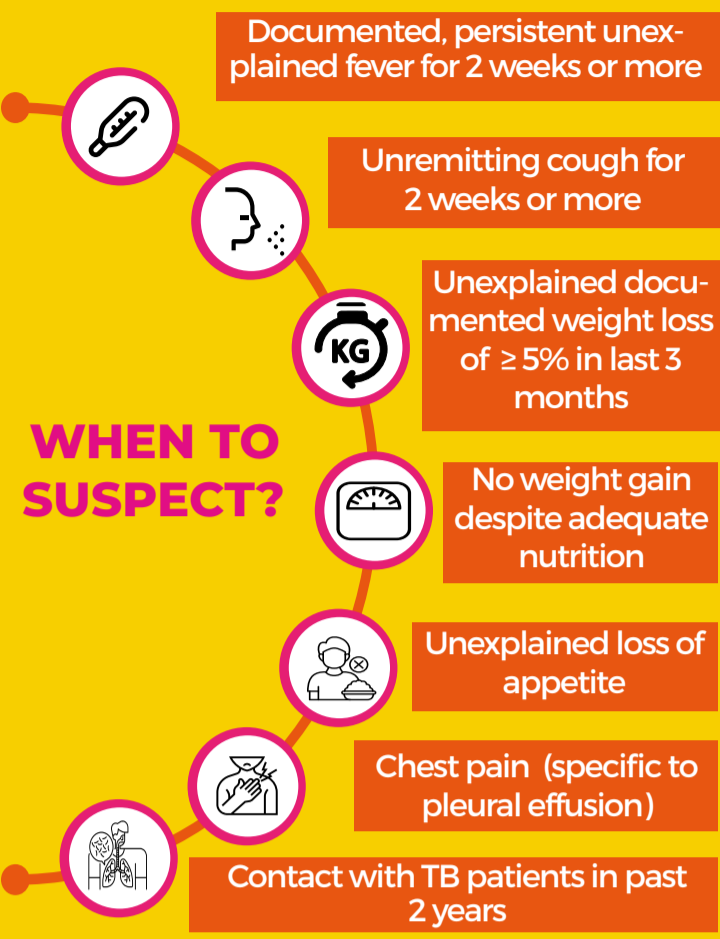




Standard Treatment Workflow (STW) for the Management of PAEDIATRIC INTRATHORACIC TUBERCULOSIS (PULMONARY, PLEURAL, MEDIASTINAL) ICD-10-A15



EXAMINATION

- Temperature, Weight, Mid Arm Circumference (MAC), Lymphadenopathy, cold abscess, discharging sinus
- Chest examination findings depend upon underlying pathology like consolidation, pleural effusion etc.

INVESTIGATIONS

Essential

- Chest x-ray
 - TB suggestive: Hilar/ paratracheal lymph nodes, fibrocavitary disease, Miliary pattern
 - Non Specific : effusion, consolidation, bronchopneumonia, other shadows etc.
- Sputum/Induced Sputum/Gastric Lavage/ Aspirate /pleural fluid for NAAT
- Smear examination (if NAAT unavailable)
- If facilities exist, send aliquot of sample for culture, if NAAT negative for MTB
- Pleural tap*: Gross, Cytology, Biochemistry, NAAT, MGIT/LJ, ZN if NAAT not available
- **If can't be done at primary level then refer

Desirable

- Chest x-ray of family members

Optional (to be done in institutions)

- CECT scan
- Pleural Biopsy (caseating granulomas with Langerhans giant cells, epithelioid cells & lymphocytes)
- Image guided (USG/CT) mediastinal LN biopsy
- Bronchoscopy & BAL

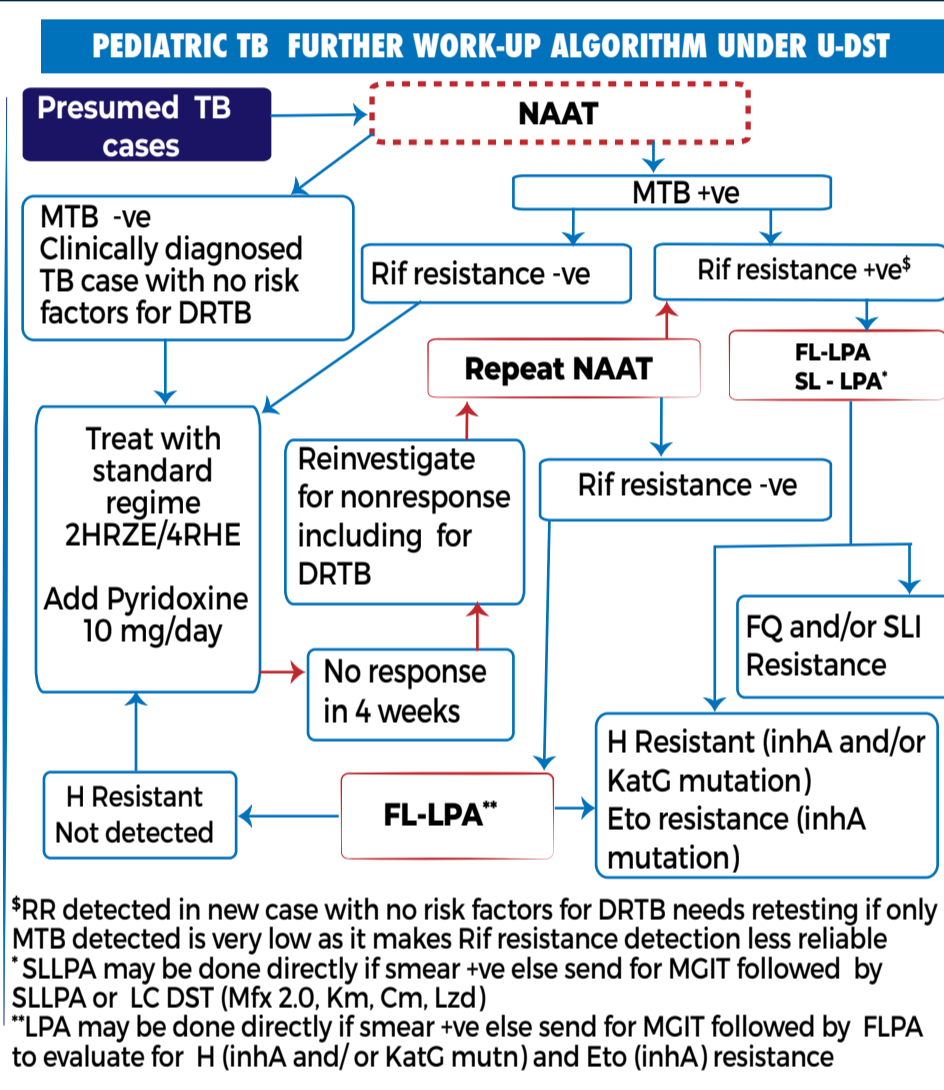
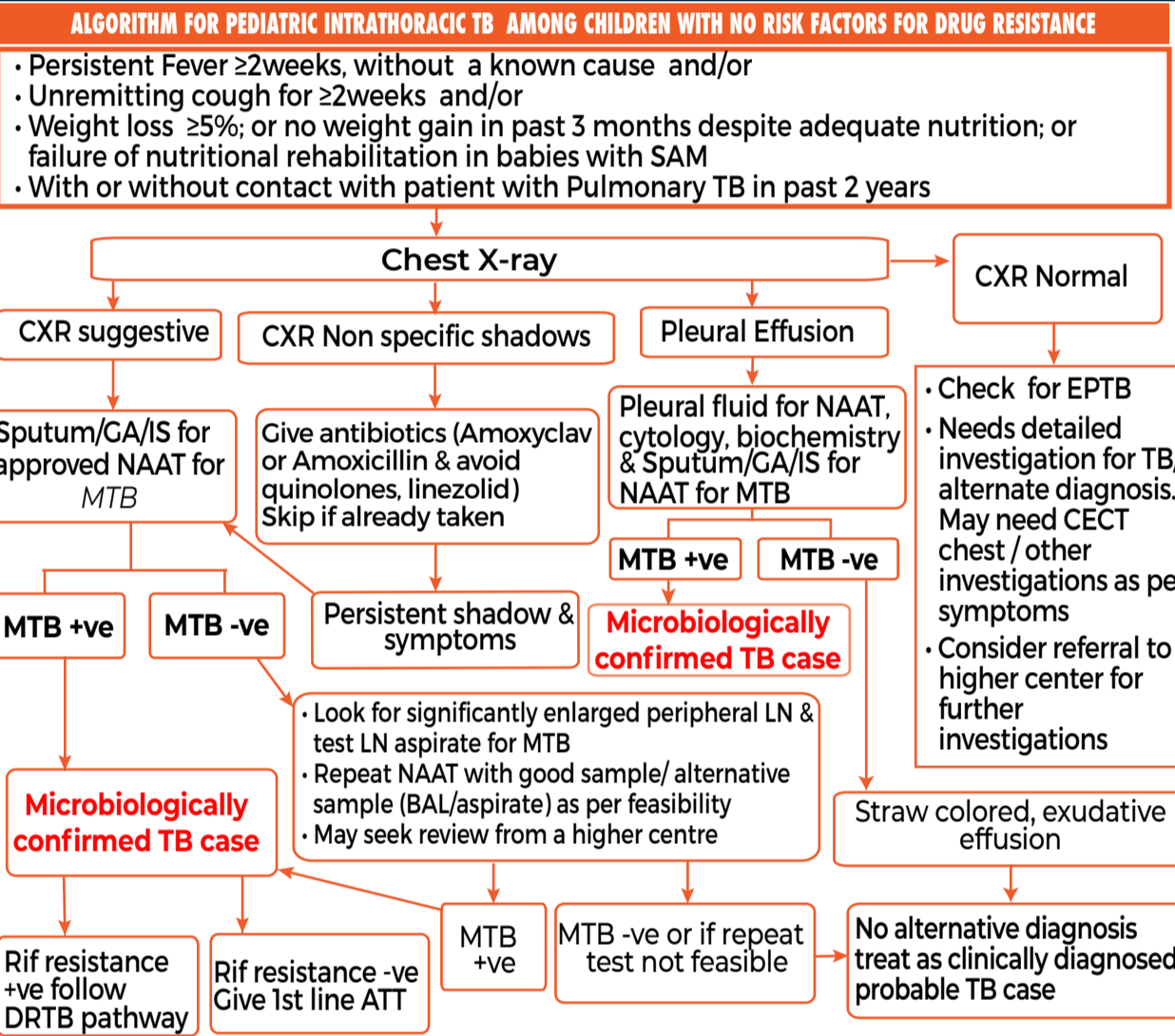
DO NOT DO

- TST/Mantoux test
 - Overemphasized, supportive only
 - Not to diagnose TB or to start ATT on basis of +ve TST ONLY
- Serological tests- IGRA (Quantiferon/Quantiferon-Gold etc)
- Pleural fluid ADA



Do HIV testing for all cases with TB

DIAGNOSTIC ALGORITHM



TYPE OF PATIENTS	TB TREATMENT REGIMENS
Microbiologically confirmed RS Pulmonary TB	2HRZE + 4HRE
Clinically diagnosed Pulmonary TB	
Drug sensitive previously treated TB (recurrent, failure, treatment after default)	

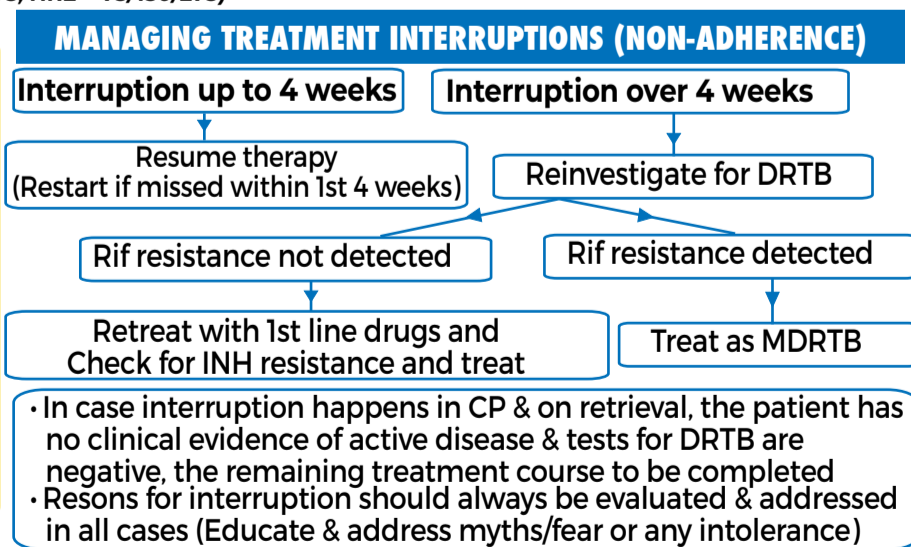
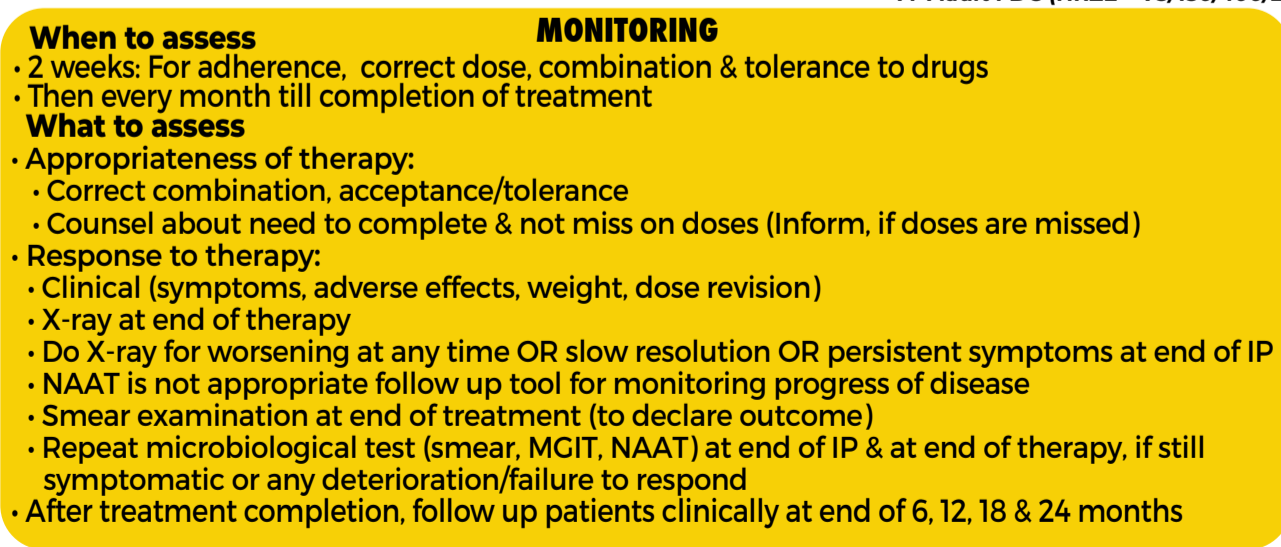
***DR TB algorithm-DST**

DRUG	DOSE
ISONIAZID (H)	7-15 mg/kg (maximum dose 300mg/day)
RIFAMPICIN (R)	10-20 mg/kg (maximum dose 600mg/day)
PYRAZINAMIDE (Z)	30-40 mg/kg (maximum 2000mg/day)
ETHAMBUTOL (E)	15-25 mg/kg (maximum 1500mg/day)

WEIGHT BAND	Number of tablets (dispersible FDCs)			
	Intensive phase		Continuation phase	
	HRZ	E	HR	E
4-7 kg	1	1	1	1
8-11 kg	2	2	2	2
12-15 kg	3	3	3	3
16-24 kg	4	4	4	4
25-29 kg	3 + 1A*	3	3 + 1A*	3
30-39 kg	2 + 2A*	2	2 + 2A*	2

*A=Adult FDC (HRZE = 75/150/400/275; HRE = 75/150/275)

- Consider steroids in miliary TB with hypoxia, Endobronchial TB
- Prednisone dose 2 mg/kg daily or Dexamethasone 0.6 mg/kg/day for 4 weeks
- Reduce dose gradually over next 4 weeks before stopping
- Pyridoxine 10 mg/day for 6 months
- Nutritional support
- Treat co-morbid conditions: HIV, SAM



ABBREVIATIONS

ADA: Adenosine Deaminase	DRTB: Drug resistant TB	FQ: Fluoroquinolones	IS: Induced sputum	RIF: Rifampicin
BAL: Broncho-alveolar lavage	DST: Drug sensitivity test	GA: Gastric aspirate	LN: Lymph node	SAM: Severe acute malnutrition
CBNAAT: Cartridge-based Nucleic Acid Amplification test	EPTB: Extra-pulmonary TB	H: Isoniazid	MAC: Mid Arm Circumference	SLI: Second line injectables
CECT: Contrast enhanced CT	ETO: Ethionamide	HIV: Human Immunodeficiency virus	MTB: Mycobacterium Tuberculosis	SL-LPA: Second line - Line probe assay
CP: Continuation phase	FDC: Fixed dose combination	HRZE: Isoniazid; Rifampicin; Pyrazinamide; Ethambutol	NAAT: Nucleic acid amplification test	TST: Tuberculin skin test
CT: Computed tomography	FL-LPA: First line - Line probe assay	IGRA: Interferon Gamma Release assay	PPD: Purified Protein Derivative	USG: Ultrasonography
				ZN: Ziehl Neelson

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This STW has been prepared by national experts of India with feasibility considerations for various levels of healthcare system in the country. These broad guidelines are advisory, and are based on expert opinions and available scientific evidence. There may be variations in the management of an individual patient based on his/her specific condition, as decided by the treating physician. There will be no indemnity for direct or indirect consequences. Kindly visit our web portal (stw.icmr.org.in) for more information.
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