



# Standard Treatment Workflow (STW) for the Management of ADULT MUSCULOSKELETAL TUBERCULOSIS ICD-10-A18.0



## WHEN TO SUSPECT?

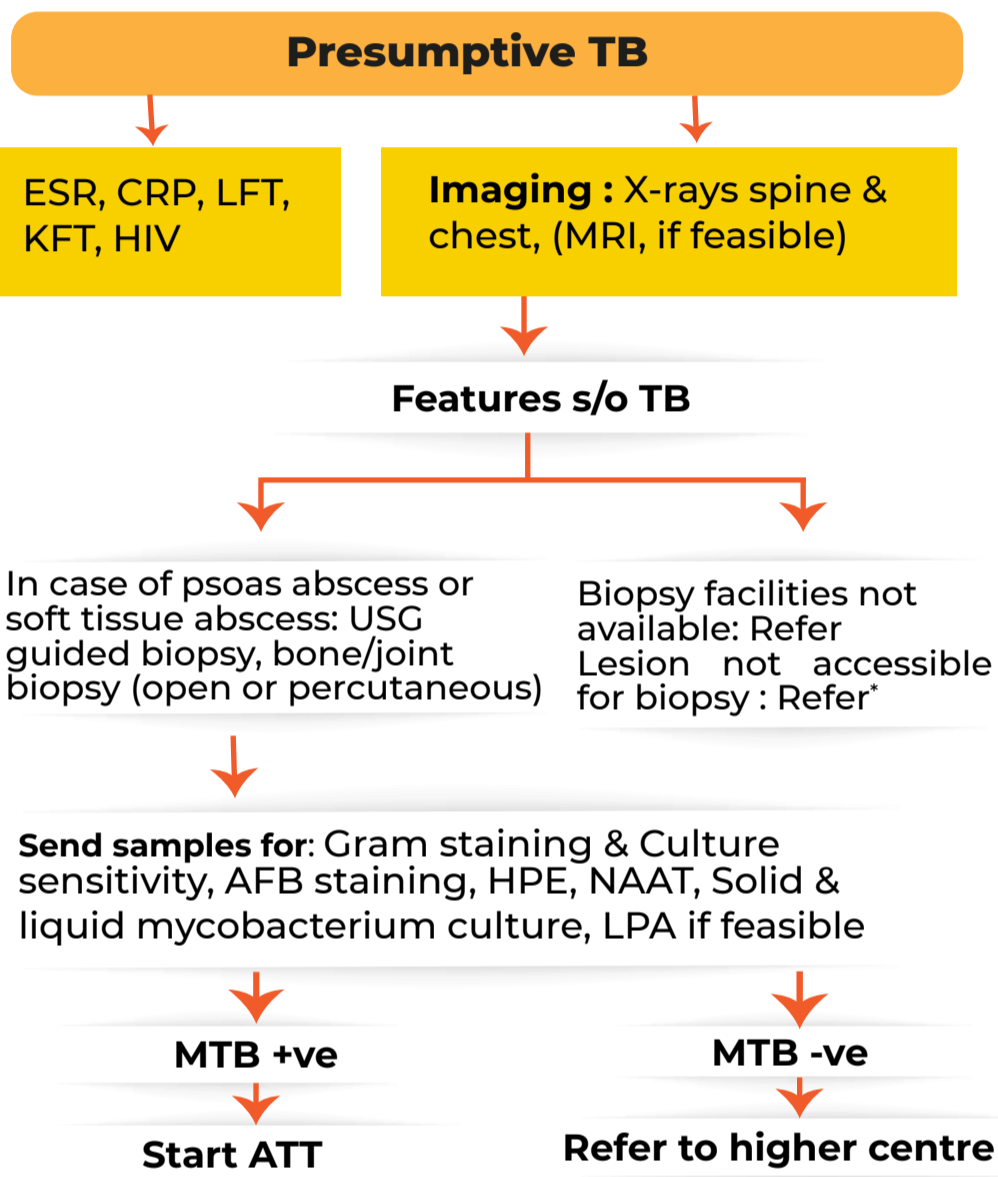
### SPINE TUBERCULOSIS

- Persistent localized pain in spine region >6 weeks, night pains
- Local tenderness/cold abscess
- Recent onset deformity in the back
- Recent neurological deficit (better to refer\*)
- Persistent heaviness around the waist/Girdle pain
- Fever, cough, weight loss & night pains
- History of close contact with TB

### OTHER JOINTS/BONES

- Persistent localized pain & swelling >6 weeks
- Mono-articular joint involvement
- Discharging sinus (+/-)
- Fluctuant swelling with or without inflammation
- Painful restriction of involved joint movements
- Wasting around the area
- Fever, cough, weight loss & night pains
- History of close contact with TB

## DIAGNOSTIC ALGORITHM



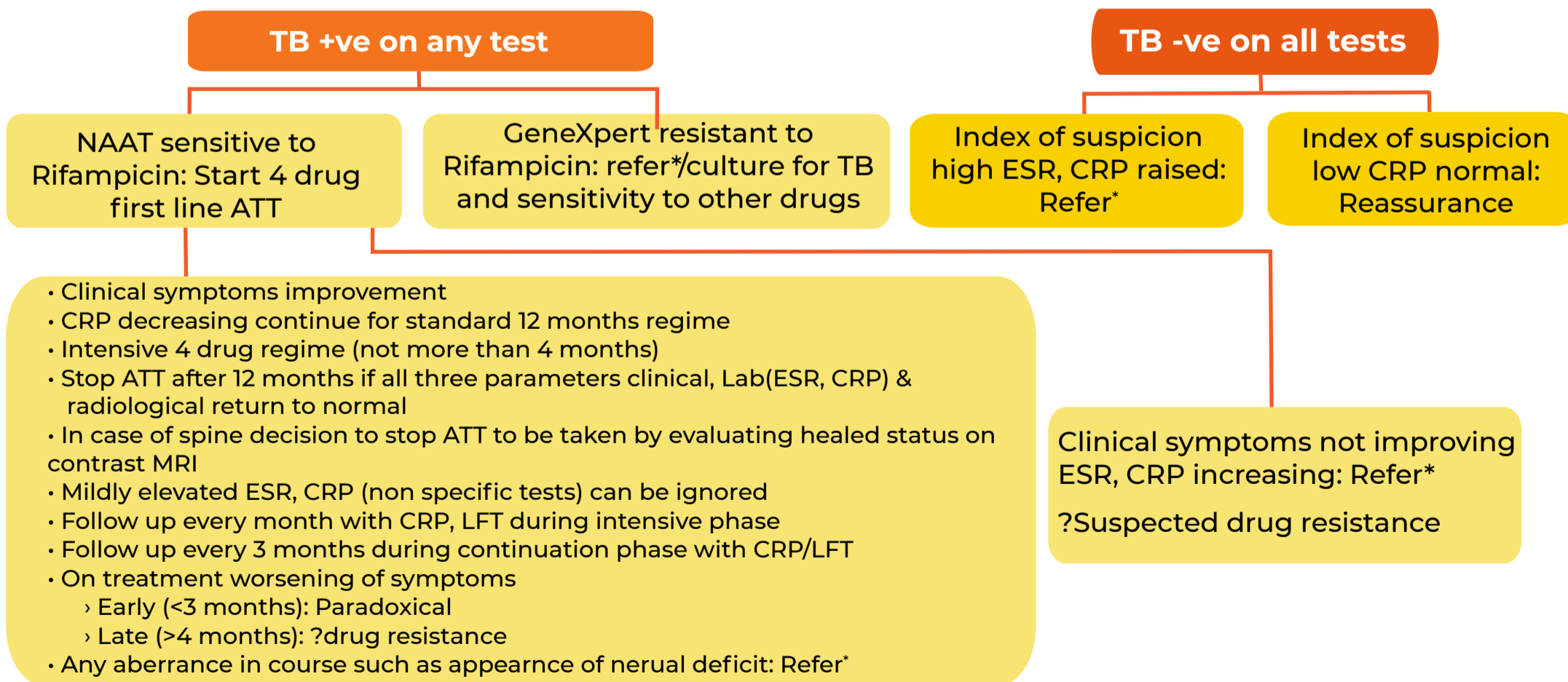
Paravertebral shadow    Obliterated disc space & bone loss in X-rays    T<sub>1</sub>WI and T<sub>2</sub>WI images bone edema with VB destruction    T<sub>2</sub>WI septate pre/para vertebral abscess in MRI

### Findings S/o TB

- **X-ray findings(spine):**
  - › Regional Osteopenia
  - › Decreased/obliterated disc space
  - › Vertebral erosions +/- reduced vertebral height
  - › Paravertebral shadow
- **MRI findings (Spine):**
  - › Contagious VB involvement with relatively preserved disc
  - › Pre & paravertebral septate collection (Abscess)
  - › Epidural encroachment +/- intraosseous abscess
- **X-ray & MRI Finding (extraspinal):**
  - › Regional osteoporosis with bone destruction on X-rays
  - › Inflammation of bone(T1WI & T2WI) +/- abscess on MRI

## TREATMENT

Treatment should be started & follow-up should be conducted as per NTEP guidelines  
The following algorithm provides additional guidance for follow-up



\*Refer to higher centre where advanced diagnostic, & therapeutic facilities including surgical procedures are available.

## ABBREVIATIONS

AFB: Acid-fast Bacillus  
ATT: Anti-Tubercular Treatment  
CRP: C-Reactive Protein  
ESR: Erythrocyte Sedimentation Rate

HIV: Human Immunodeficiency Virus  
HPE: Histopathological examination  
KFT: Kidney Function Tests  
LFT: Liver Function Tests  
LPA: Line Probe Assay

MRI: Magnetic Resonance Imaging  
NTEP: National TB Elimination Programme  
TB: Tuberculosis  
USG: Ultrasonography  
VB: Vertebral body  
WNL: Within Normal Limits

## REFERENCES

1. National TB Elimination Programme, Central TB Division. Training Modules for Programme Managers & Medical Officers. Ministry of Health & Family Welfare, Government of India <https://tbcindia.gov.in/index1.php?lang=1&level=1&sublinkid=5465&lid=3540> Last accessed on 10 March, 2022.
2. Guidelines for programmatic management of drug resistant tuberculosis in India March 2021. National TB Elimination Programme, Central TB Division, Ministry of Health & Family Welfare, Government of India <https://tbcindia.gov.in/showfile.php?lid=3590> Last accessed on 10 March, 2022.