Integrated TB diagnosis algorithm in the context of COVID-19

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Kerala state is committed to eliminate Tuberculosis by 2025. COVID-19 has posed many challenges for TB diagnosis especially delay in diagnosis. TB and COVID-19 may present with similar symptoms of cough, fever and difficulty in breathing although TB has a longer incubation period and slower disease onset. Studies have shown that history of active or latent TB is an important risk factor for COVID-19. Vulnerability to develop TB (elderly, malnutrition, tobacco use, chronic respiratory illness, diabetes, immunocompromised conditions) and fatal COVID-19 are also same.

GOI has issued guidelines for TB diagnosis in the context of COVID. State of Kerala has customised the algorithms based on local epidemiology of TB and COVID. This algorithm has been piloted at field. In these contexts, following advisory is issued regarding diagnosis of TB in the context of COVID-19.

1. TB Screening for ILI/SARI cases

a. All Influenza Like Illness cases are being tested for COVID-19.
b. Influenza Like Illness in a person with any vulnerability (contact with TB, elderly, diabetes, immunocompromised conditions, malnutrition, chronic respiratory diseases, tobacco use) shall be tested for TB also concurrently.
c. All COVID-19 negative ILI/SARI cases to be followed up by PHC/FHC/CHC/THQ where patient is residing. If the symptoms persist for >14 days, TB tests to be offered irrespective of vulnerability/contact status.
d. Patient shall not be referred to any centre for performing TB testing. Instead samples need to be collected at the institution and to be transported to nearest laboratory in Hub and Spoke model.
e. All specimens from a COVID confirmed cases shall be handled in a laboratory with Biosafety Level 2 (With Biosafety Cabinet Class II Type 2A/B). All precautions including additional precautions as per the advisory 31/F2/2020/H&FW dated 20th April 2020 and communicated
timely by State TB Cell shall be taken while performing TB tests at laboratories.

2. **Bilateral Screening for COVID & TB**

All patients infected with COVID-19 shall be screened for TB using 4 symptom complexes (Fever >2 weeks, Cough >2 weeks, Weight Loss, Night Sweats). Anybody who screened positive for one of these symptoms to be tested for TB (upfront CB NAAT /Truamat) in a laboratory with BSL2 precautions. Any COVID-19 patient with any abnormality in Chest Xray shall also be tested for TB. Any diagnosed TB patients/ Cured TB patient developing any symptoms suggestive of COVID-19 (fever, cough, sore throat, rhinitis, anosmia, easy fatiguability) shall be tested for COVID-19 as per the testing guidelines issued by Government of Kerala. The information shall be recorded in NIKSHAY.

[Signature]

Principal Secretary
Integrated Algorithm for testing TB among ILI/SARI cases in the context of COVID-19

**Influenza Like Illness/ SARI**

**Rapid Antigen Assay for COVID-19**

**Negative**

- Decide on further testing as per the advisory on testing for COVID-19 issued by Government of Kerala.
- Workup for alternative diagnosis if necessary, including Chest Xray.
- Refer to SWAAS clinic in case of a chronic respiratory disease.

**Positive**

- Manage the case as per advisory on management of COVID-19 issued by Government of Kerala.

**CB NAAT / True NAAT for TB test**

**OR**

- Smear Microscopy (If there is NO specimen collection & Transportation system from the health institution)