### **Directorate of Health Services**

### (State TB Cell)

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# Advisory for collection & transportation of sputum specimens for TB testing in the context of COVID in a HUB & SPOKE model

Any biological specimen form COVID suspect/confirmed case shall be processed in TrueNAAT/Xpert laboratory with BSL 2 facilities.

State has issued advisory regarding bilateral screening of COVID & TB and screening for all ILI/SARI cases and testing eligible. Apart from this state is planning a strategy to find out the missed TB cases by actively searching among the vulnerable individuals in the community. In these contexts, following advisory is issued for safe collection and transportation of the samples.

**Acceptable specimen:** 3-5 ml sputum with macroscopic presence of mucopurulent viscous material which is thick, cloudy & sticky. Saliva(spit) is thin clear & watery and is not advisable for this test.

## <u>Sputum specimen collection at Sub Centres/ Sample collection Points/Health</u> <u>Facilities</u>

A supervised spot sampleshall be collected in a screw capped sputum cup/falcon tube from such patients as follows:

- Staff/ Volunteer at the collection centre shall counsel the patient for good quality sputum collection (Annexure 1)
- Issue sputum cup/falcon tube to patient after proper labelling. While labelling use ball point pen. Also, with a sticker label at the bottom of the cup also. (A cup will have 2 labels- one at bottom and one at usual place)
- 3. Patient shall be advised to wash their hands thoroughly
- 4. The patient shall be directed to a well ventilated and isolated area with direct sunlight for sputum sample collection. It is advisable to identify and earmark a spot for sputum collection and display IEC for sputum collection in regional language

- 5. Samples to be received by the staff/volunteer on a separate tray followed by surface disinfection by spraying using 70% alcohol containing solution / freshly prepared 1% sodium hypochlorite solution. Any locally available spray bottles could be used.
- 6. Quality of sputum samples thus collected to be visually verified macroscopically by the staff/volunteer
- 7. Annexure for TB testing shall be appropriately filled. If the sample is from a COVID suspect/COVID positive patient, these annexures shall be marked on top in red "COVID SUSPECT/COVID POSITIVE SAMPLE"
- 8. Step No 7 shall be skipped if somebody can directly enrol the patient in NIKSHAY using mobile application and generate Test ID.
- 9. Samples could be transported to the nodal PHC in a closed sputum transportation box with facility to hold the cup erect. This could be made with locally available thermocol/ cardboard.
- 10.LT at PHC shall pack these samples using triple layer packaging system with standard and additional precautions. All samples in a day could be packed together. No need to pack individual samples in triple layer packing.LT should wear N95mask, face shield and fresh gloves while packing the samples.
- 11. The samples shall be transported to the CBNAAT/TRUENAT testing site using the existing system for sample transportation. The patient tested positive to be enrolled in Nikshay by respective STLS upon intimation from the Lab Technician.

#### Home collection procedure

Home collection of sputum shall be undertaken for those patients who cannot be mobilized upon referral. A supervised spot sample needs to be collected in a screw capped sputum cup/falcon tube. Instructions for proper sample handling by respective health care worker -ASHA/palliative nurse (HCW)/volunteer is as enlisted.

Volunteer/ASHA/staff deployed for non-containment zones & performing patient referrals in containment zones shall use a pair of gloves, triple layer mask and face shield with a definite social distance of 6 feet at all times. Volunteer/ASHA/staff deployed for home collection of samples incontainment zones should wear a pair of gloves, N95mask and face shield.

- 1. Label the patient details on the sputum cup (2 labels using ball point penone at bottom of the cup)
- 2. Fill out the Referral form after seeking adequate information from the patient.
- 3. Sputum cup along with the procedures printed in Malayalamto be handed over to the patient after pertinent counselling in person by the volunteer/staff regarding the correct procedure to be followed for sputum collection as per NTEP guidelines.
- 4. Patient to be instructed to perform hand hygiene using soap and water before and after sample collection.
- 5. Sputum to be collected in open ventilated space. The staff supervising the collection should not stand in front of the patient during sputum collection because of the possible risk of aerosol infection.
- 6. The sputum cup after sample collection can be retrieved by the staffby instructing the patient to place the specimen inside a zip lock cover and ensure it is sealed. Put a label outside the zip lock cover for tracing the patient in case of any spillage happens while transit.
- 7. Specimens packed in this manner shall be kept in locally available thermocol/cardboard boxes and transported to nearest sub centres/PHC based on the local plan.
- 8. LT at PHC pack these samples using triple layer packaging system with standard and additional precautions. All samples in a day could be packed together. No need to pack individual samples in triple layer packing.LT should wear N95 mask , face shield and fresh gloves while packing the samples
- 9. The samples shall be transported to the CBNAAT/TRUENAT testing site using the existing system for sample transportation. The patient tested positive to be enrolled in Nikshay by respective STLS upon intimation from the Lab Technician.

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### കട്ടിയുള്ള കഫം എടുക്കേണ്ടതെങ്ങനെ ?

- 1. കഫം ശേഖരിക്കുന്നതിനുള്ള ഡപ്പി കൈയ്യിൽ എടുക്കുന്ന തിനു മുൻപായി കൈകൾ സോപ്പും വെള്ളവും ഉപയോ ഗിച്ച് വൃത്തിയാക്കുക
- 2. വായ് വൃത്തിയായി കഴുകിയതിന് ശേഷം തുറസ്സായ വായു സഞ്ചാരമുളള സ്ഥലത്ത് നിന്ന് കൊണ്ട് മൂന്ന് തവ ണയെങ്കിലും ദീർഘമായി ശ്വാസോച്ഛാസം ചെയ്യുക. അതി നുശേഷം നന്നായി ചുമച്ച് നെഞ്ചിനുള്ളിൽ നിന്നും കഫം വരുത്തുക.
- തുപ്പലോ മൂക്കിൽ നിന്നുള്ള സ്രവങ്ങളോ പരിശോധ നയ്ക്ക് കൊടുക്കരുത്.
- 4. കട്ടിയായ കഫം കിട്ടുന്നില്ലെങ്കിൽ ഇരു കൈകളും ഇടു പ്പിൽ (എളിയിൽ) താങ്ങി രണ്ടു മൂന്നു തവണയെങ്കിലും ദീർഘമായി ശ്വാസം വലിച്ച് ശക്തിയായി ചുമയ്ക്കുക.
- കഫമെടുക്കുന്നതിനു മുൻപ് ഇളം ചൂടു വെള്ളം കുടി ക്കുന്നത് കട്ടിയായ കഫം കിട്ടുന്നതിന് സഹായകരമാണ്.
- ഡപ്പി തുറന്ന് വായോടു ചേർത്തു പിടിച്ച് കഫം ശേഖരിച്ച തിന് ശേഷം മൂടി മുറുകുന്നതുവരെ നന്നായി അടയ്ക്കുക
- 7. ഡപ്പി ആരോഗ്യ പ്രവർത്തകന്റെ നിർദ്ദേശ പ്രകാരം കൈമാറിയതിനുശേഷം കൈകൾ സോപ്പും വെള്ളവും ഉപ യോഗിച്ച് വൃത്തിയാക്കുക.

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### TRIPLE LAYER PACKING PROCEDURE

A triple layer packaging system consist of three components as follows

- 1. **Primary receptacle**. Sputum has to be collected in a leak-proof falcon tube/sputum cup and should be wrapped in enough absorbent material to absorb all fluid in case of breakage. The collection bottle along with the absorbent material serves as the Primary receptacle.
- 2. **Secondary receptacle**. The container to be placed inside a leak proof zip lock pouch which serves as the secondary receptacle .Several wrapped primary receptacles may be placed in one secondary receptacle. Sufficient additional absorbent material must be used to cushion multiple primary receptacles. Test requisition form and any type of information related to the patient or sample has to be kept in a separate zip lock pouch which then can be taped to the outside of the secondary receptacle
- 3. <u>Outer package</u>. The secondary receptacle is placed in an outer shipping package which protects it and its contents from outside influences such as physical damage and water while in transit.
  - Hands should be cleaned thoroughly with soap and water before and after packing and should be freshly gloved during the process of packing

