

# Sputum Collection and Transportation

PS Microbiologist  
Priya Jha

# Background

- The TB prevalence is only determined based on the laboratory confirmation of MTB in PS.
- Sputum collection, storage, transportation and test thus important and need quality bio-safety and cold chain maintain during in each steps.

# Field Unit Laboratory Sputum Collection

- Collection of sputum sample and timely transport these samples to central laboratory for bacteriological examination maintaining its freshness without contamination is the major function of field laboratory in national prevalence survey.

# The laboratory Field unit

- 2 lab technician from the central team and a local non- health staff.
- Lab technician will lead to set up field laboratory unit.
- Spot(D1) and Morning(D2) samples are collected for each eligible participants.

# Collection pattern

- D1X and D2X samples are collected in red cap container for GeneXpert and Smear Microscopy examination, whereas D2C sample in **blue cap** container for the culture

	1 <sup>st</sup> Sample (spot)	2 <sup>nd</sup> Sample (Morning)	3 <sup>rd</sup> Sample (Morning)
Odd	D1X	D2X	-
Even	D1x	D2x	D2C

# Instruction to the Eligible participant.

- Advise going to an open place preferably sunny place away from people.
- Breathe deeply many times and then cough from deep down within the lungs.
- Lean forward, breathe in and out slowly twice, hold breath for 2-3 seconds each time, and on third time forcefully cough to bring up the sputum of 2-5 ml.
- Collect sputum in the mouth and spit carefully into a provided sterile sputum container and close the lid tightly, so it doesn't leak.
- For morning sample collection, provide one red cap container labeled as D2X for odd numbers and D2X and D2C (two containers) for even numbers.
- Instruct the patient to collect quality sputum at home away from people in open place as above procedure and provide them leaflet with clear written instruction.



१. सफा पानीले मुख कुल्ला गर्ने ।



२. लामो श्वास लिने।

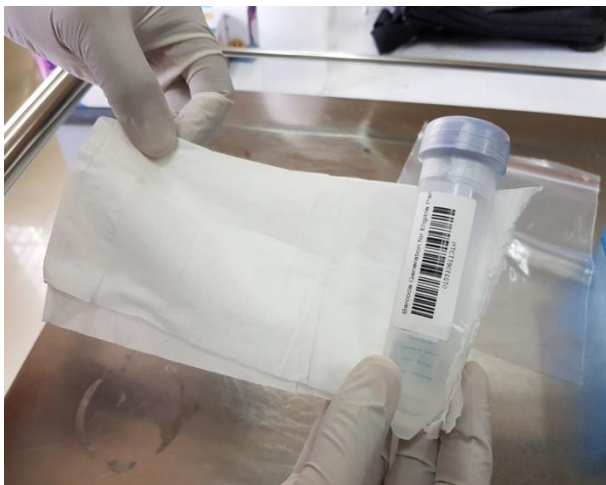
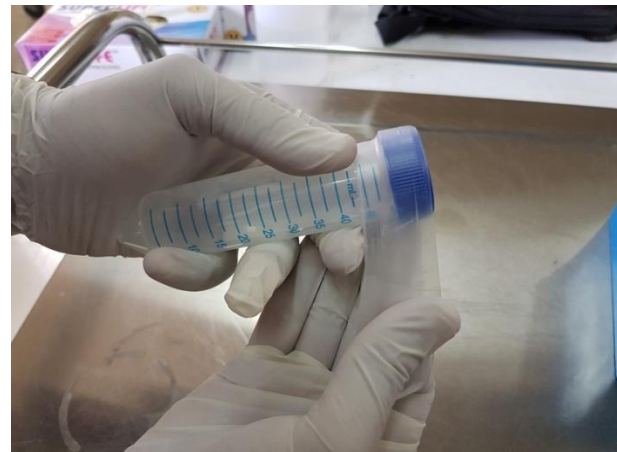


३. पिठ्युमा बिस्तारै थपथपाउने ।

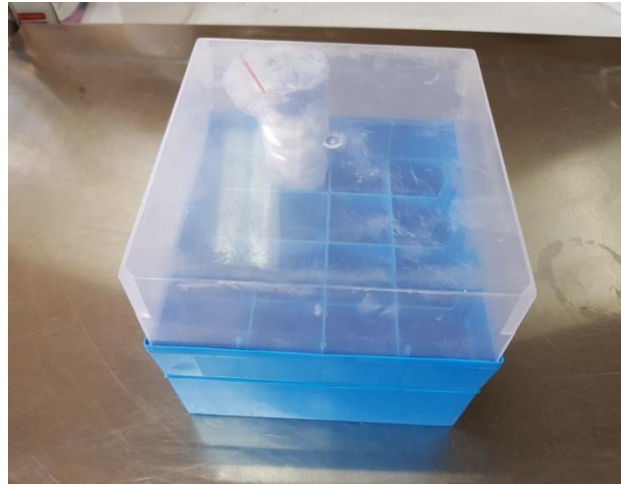
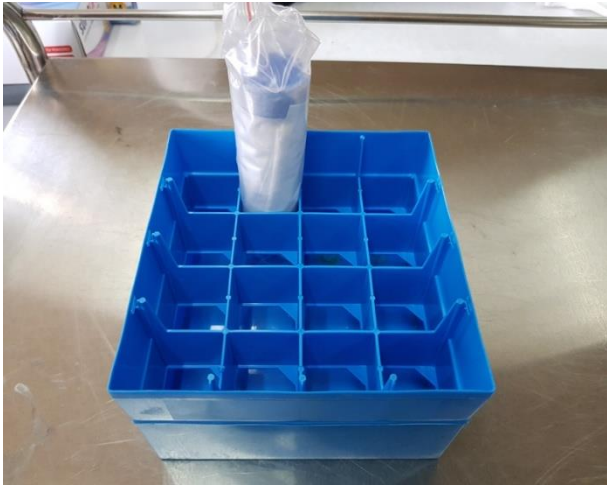


४. खोक्ने ।

# Packing of sputum sample







National Tuberculosis Prevalence Survey  
National Tuberculosis Center

# Packing of the collected sample

- Received the collected sample and confirm that the specimen in the sputum container is the same suspects to whom the container was provided.
- Enters the data into the data management system regarding the sputum tube receive status, sputum condition etc.
- Seal the sputum container cap with parafilm and rap in absorbent paper
- Pack in zipping lock plastic bag
- Pack in rack in vertical position in storage box.
- Store the rack in refrigerator (2-8 degree Celsius) until transportation to the central laboratory

# Major roles and responsibilities

- Ensure that all staff are placed in field unit and activities are being carried out smoothly according to protocol.
- Availability of SOP at the lab section.
- Review all the steps of sample collection according to the SOP .
- Ensure the site of sputum collection is proper mainly open place.



# Major roles and responsibilities

- Assure mop up plan is carried out in coordination with team leader.
- Locate those areas needing follow-up team mobilization.
- Mobilize local health staff to collect sputum sample of those suspects either due to need of recollection or result of x-ray reading is changed to abnormal and is labeled as eligible for sputum collection by central team or QA team.



- Ensure timely transportation of these samples to respective central laboratory.
- Logistic and waste management.
- Provide the survey examination results to the health facility that are received from PSS/NTC and ensure that each participants receive the information on examination results through health system
- Ensure enrollment of diagnosed active TB cases during PS, for treatment as per NTP guideline.

# Remarks/feedback

