



TRAINING OF TRAINERS ON THE RESEARCH PROTOCOL OF THE BPAL OPERATIONAL RESEARCH

Specimen handling and other TB laboratory-related procedures

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OBJECTIVES

By the end of this lecture, participants will be able to:

Collect specimens of good quality and sufficient quantity for TB testing

Properly refer specimens to ensure they are accepted for TB testing, and are processed in a timely manner

Release TB test results within the desired turnaround times

Properly store and dispose of specimens



MANUAL ON



COLLECTION,



STORAGE &



TRANSPORT

OF SPECIMENS FOR TB TESTING

2ND EDITION



[bit.ly/CSTS Manual 2](https://bit.ly/CSTS_Manual_2)

Specimen collection

QUALITY

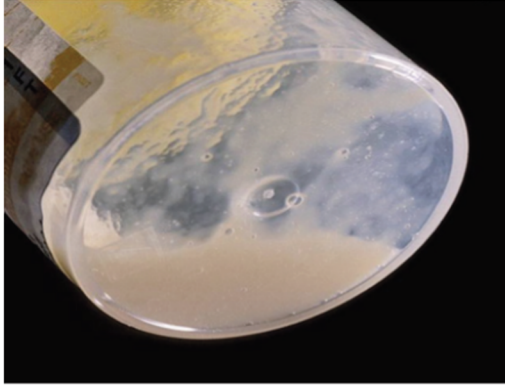


Figure 3. Purulent sputum



Figure 4. Mucoïd sputum

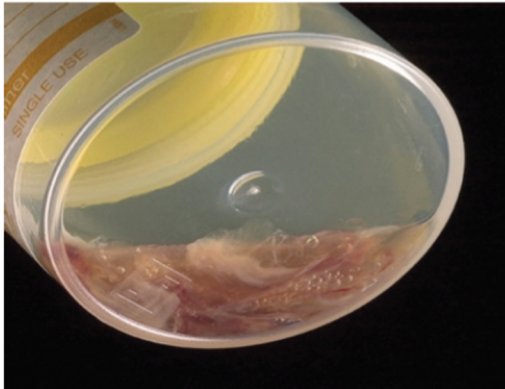


Figure 5. Blood-stained sputum

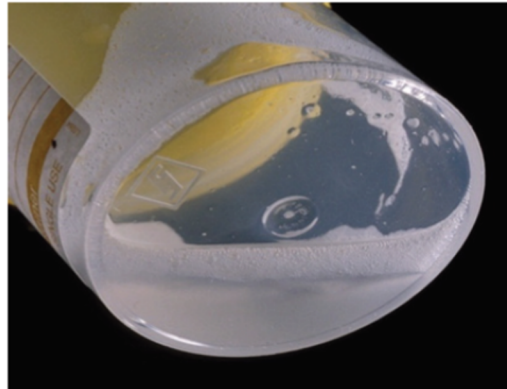


Figure 6. Salivary sputum

ACCEPTABLE

Specimen that is **grossly contaminated with blood, or macro-particles**

NOT ACCEPTABLE

Specimen collection

QUANTITY

Xpert MTB/Rif



Baseline culture



Second-line LPA



Follow-up, and post-treatment



Specimen transport

Send specimens **immediately** for TB testing

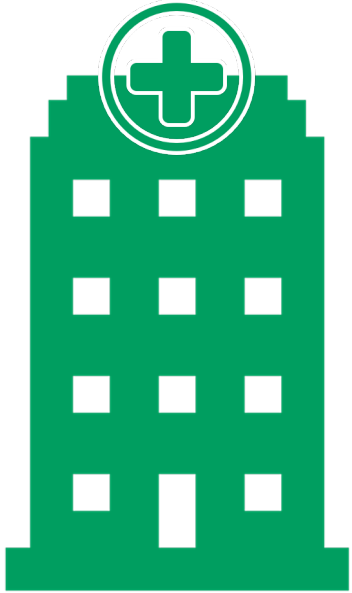
- If not possible, store them at **2-8°C** while awaiting transport
- Specimens can only be processed **within 7 days** from collection date.

Observe the **triple packaging system**

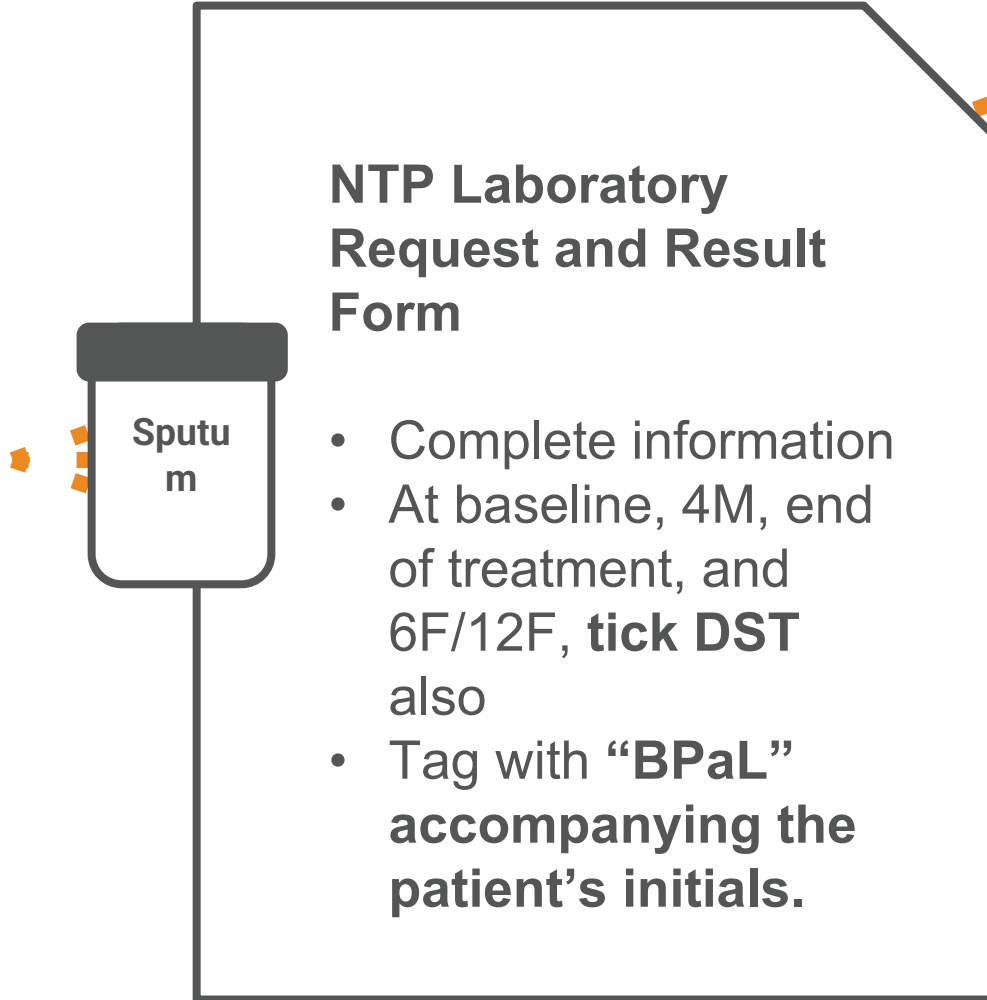


Specimen referral

CLINICAL SPECIMENS



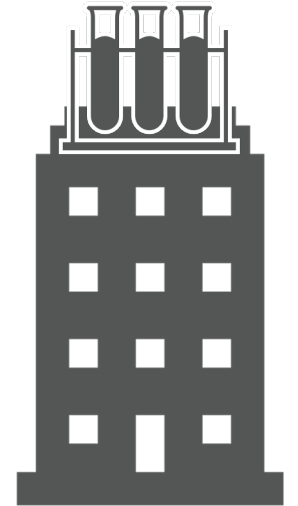
Health facility



RTD
L



LPA

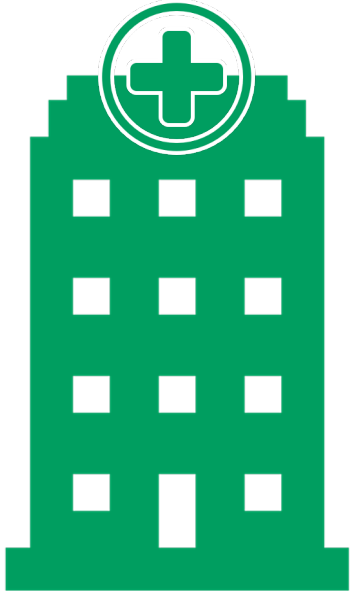


TBC
L

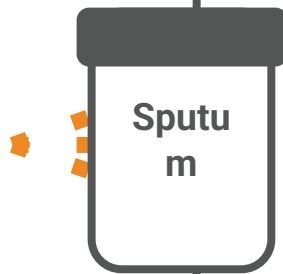


Specimen referral

CLINICAL SPECIMENS



Health facility



BPaL tag according to stage of treatment

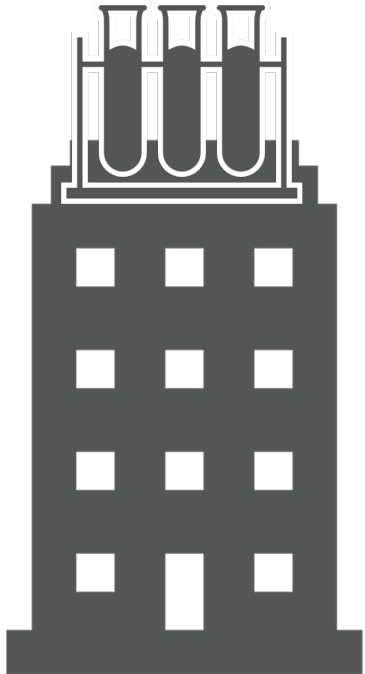
Label for tagging in the LRRF	Specimen stage of BPaL treatment
BPaL-S	Screening
BPaL-EB	Enrollment/Baseline
BPaL(1M)	Month 1 of treatment
BPaL(2M, 3M, up to 9M)	Month 2M, 3M... 9M of treatment
BPaL (6F)	6 months post-treatment
BPaL (12F)	12 months post-treatment

LPA

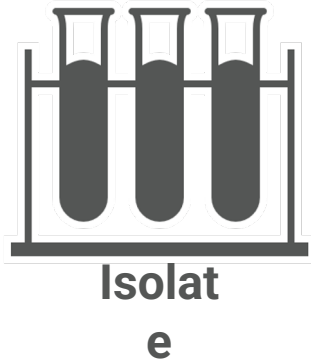


Specimen referral

MTB ISOLATES



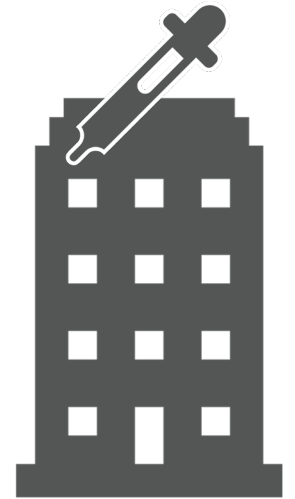
TBC
L



Isolat
e

Guidelines for the TBCL

- Track patient cultures by indicating the **BPaL tag** on the workbook.
- Positive cultures at B, 4M, end of treatment, and 6F/12F post-treatment should **automatically be forwarded for DST**
- All solid culture tubes with MTB growth should be referred **within 7 days** from date of positive ID. Keep isolates at **2-8°C** while awaiting transport.
- Observe **triple packaging**, and ensure isolate tubes won't break during transit. **No need for cold temperature.**
- Send to the DST lab with a copy of the **LRRF with BPaL tag** that was originally prepared by the originating OR site.



DST
L

Specimen rejection

REJECTED AUTOMATICALLY

- Unlabelled specimen
- Insufficient specimen quantity
- Specimen grossly contaminated with blood or macro-particles, or completely contaminated isolates
- Damaged, leaking or broken specimen container, isolate tubes, or specimen package
- Specimen more than 7 days from collection date
- No means to know where the specimen came from (i.e., no request and receiving forms, and no labels on the transport box)

ON HOLD

- No, incomplete or inconsistent request form
- Incomplete or inconsistent specimen label

Specimen processing, and releasing of results

Type of TB test	Desired turnaround time (from date of specimen receipt to date of results release)
Smear microscopy	Within 3 days
Xpert MTB/RIF assay	Within 2-3 days
Line probe assay	Within 2 weeks**
Solid TB culture	Within 9 weeks*
Solid phenotypic DST	Within 15 weeks**
Liquid TB culture and pDST	Within 7 weeks*

*Positive culture results must be released as soon as they are positively identified.

**If the isolate needs to be subcultured before pDST, it will need additional 4 weeks before they can be processed.

The time from release of results to the receipt of results by the OR sites should be kept to a minimum through real time entry into ITIS or emailing of results.



Specimen retention

Clinical specimens

- Follow institutional policy

MTB isolates

- All positive cultures must be sent to NTRL for banking and storage for future evaluations



Specimen disposal

Specimens should be treated as infectious materials, thus must be disposed of according to the DOH healthcare waste management regulations

- Place all specimens to be discarded in yellow, infectious waste bags.
- Autoclave at 121degC, 15 psi, for 20-30 minutes; OR
- Soak in freshly prepared 5% phenolic compound, or 1:10 household bleach solution for 10-15 minutes before disposal



IN SUMMARY

Specimens of good quality and adequate quantity should be collected to ensure quality of TB testing.

Specimens should be properly referred and transported to the designated TB laboratory.

Specimens must be processed, and test results shall be released within the desired turnaround times.

Specimens must be properly stored, retained, and disposed of.

BPaL OR sites and linked laboratories should maintain close coordination to ensure smooth-sailing conduct of TB testing in the TB laboratory network.





THANK YOU!



Department of Health
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