



Division of

Consolidated Laboratory Services



DEPARTMENT OF
GENERAL SERVICES



Quality and Timeliness of Specimens for Mycobacterial Culture

TB Laboratory



Background

- Mini project for CDC TB Elimination Grant

Promote rapid
delivery of specimens
to the lab

- Percent of specimens received within one, two, three days of collection
- Goal to receive 67% within one day

Timeliness

Promptly report
identification and
susceptibilities of
MTBC

- Percent of MTBC identified within 21 days of receipt
- Percent of DST results reported within 17 days of identification in culture

Quality

(partially affected by)



What Data Did We Collect?

- Percent of specimens received \geq three days of collection – stratified by HD
- Poor quality of sputum received
 - Watery/saliva
 - < 5 mL volume
- Rejected specimens (Jan 2018 – June 2019)
 - 46% due to leaky specimens (67 specimens)
 - 17% due to specimens $>$ seven days old (25 specimens)



Why are Timeliness and Quality Important?





Timeliness

time
to
receipt

- Contaminating flora overgrows mycobacteria
- Recovery of mycobacteria reduced

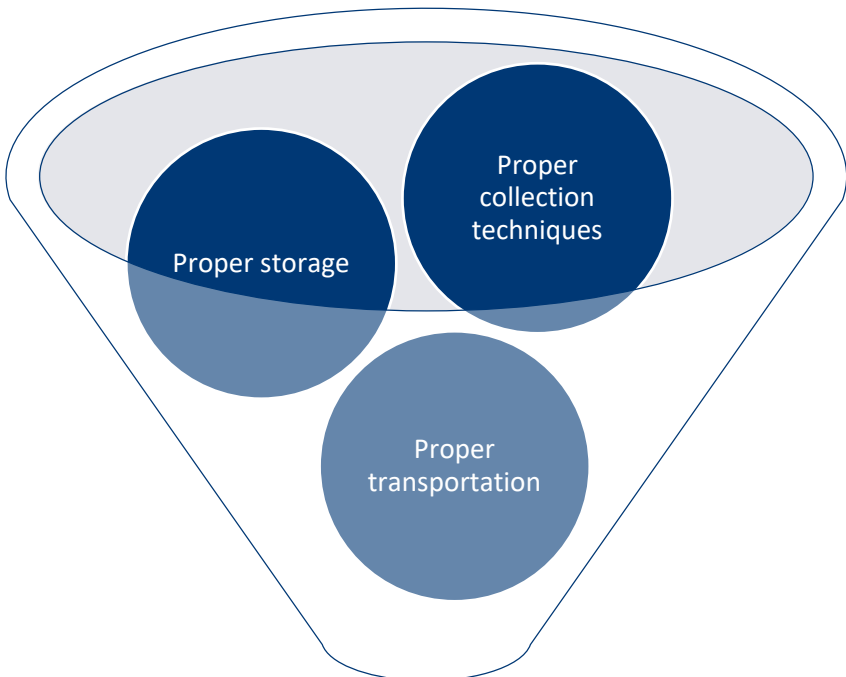
time
to
receipt

- Better picture of sample when in the body
- Less contamination
- Recovery of mycobacteria improved





Quality



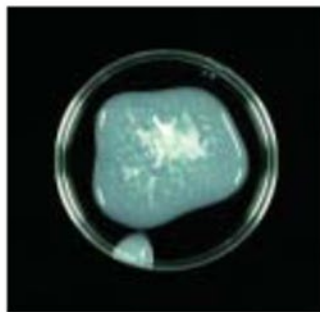
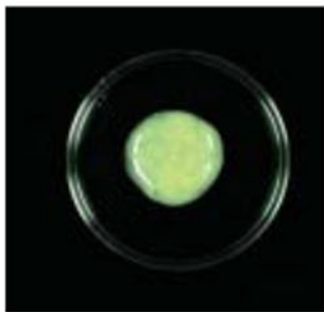
**Better and faster recovery
of mycobacteria**





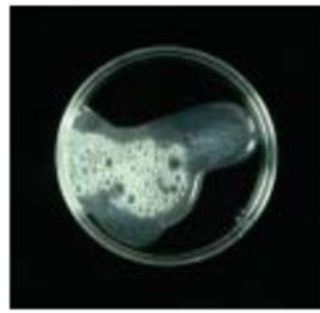
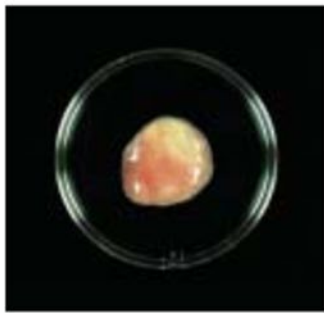
Good Quality Sputum

Thick,
Mucopurulent



Watery
(acceptable if
induced)

Hemoptysis
(Bloody
Sputum)



Salivary

- First morning sputum
- Observed collection
- Sputum produced from a deep lung cough
- Thick, not watery



Checklist

- Observe sputum collection – thick, 5 mL
- Tightly seal collection tube
- Store in refrigerator if transport delayed
- Transport within 24 hours with ice packs

Additional Specimen Types

Specimen Type	Collection Container	Volume	Transport
Urine	Sterile, leak-proof, no preservatives	40 mL (10-15 mL min)	Store refrigerated, send with cool packs
Abscess, Tissue	Sterile, leak-proof Tissue in 2-3 mL sterile saline (Swab NOT acceptable)	As much as possible	Store refrigerated, send with cool packs

Many other specimen types are acceptable for mycobacterial culture. Please call the laboratory when expecting to collect a specimen other than sputum (804-648-4480 x255).

