THE REPUBLIC OF UGANDA
MINISTRY OF HEALTH

UGANDA Supranational® Reference Laboratory
Timely Accurate Diagnostics for a TB-Free Africa

Algorithm for WHO Recommended Diagnostics (WRDs)

(MGIT Culture)

Module 1: WHO recommended TB diagnostic assays & algorithms

Date:

By:

Uganda Supranational Reference Laboratory

Content Outline

- Materials for MGIT Culture
- WHO endorsed TB diagnostic techniques until 2017

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Materials

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BD MGIT

WHO's recommended techniques for diagnosing TB: until 2017

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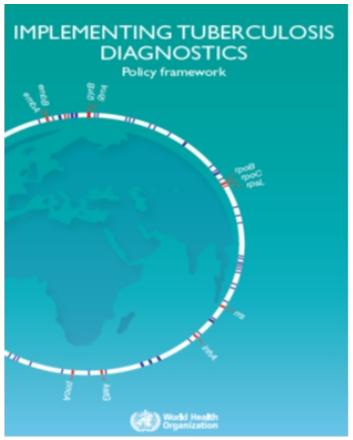
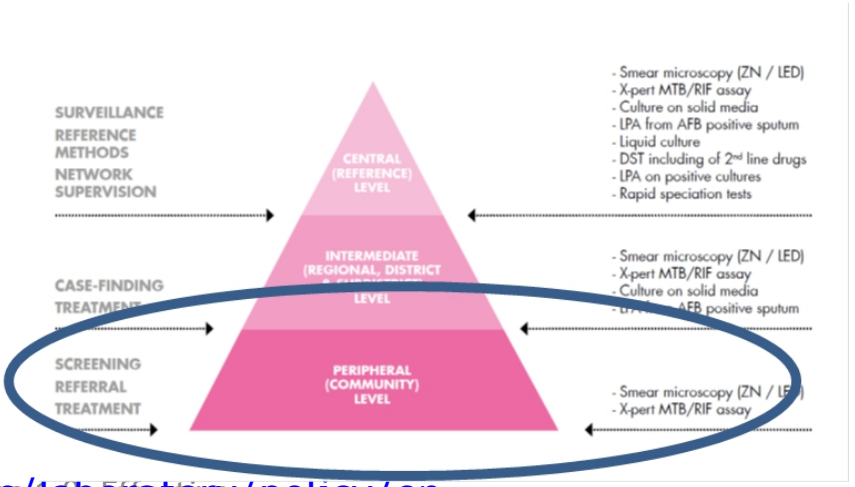
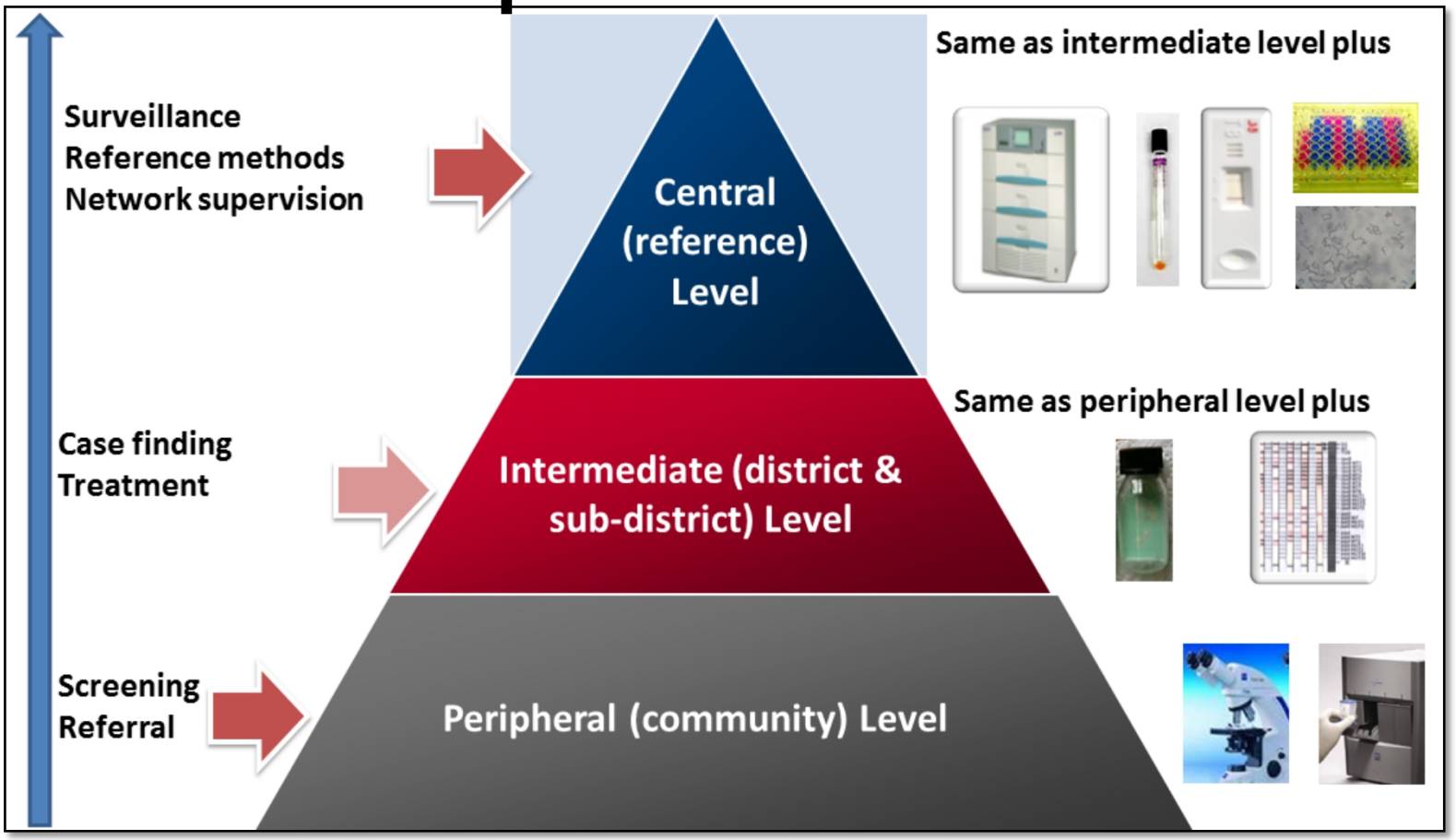


- **Microscopy**
  - Conventional light microscopy
  - Light-emitting diode fluorescent microscopy
- **Culture**
  - Culture on solid media
  - Commercial liquid culture systems and rapid speciation
- **Drug-susceptibility testing**
  - DST first-line anti-TB agents
  - DST for second-line anti-TB agents
  - Non-commercial methods
- **Molecular testing**
  - LPA (first and second-line)
  - TB-LAMP
  - Xpert MTB/RIF assay (Ultra+others)
- **LF-LAM Urine test for PLHIV**

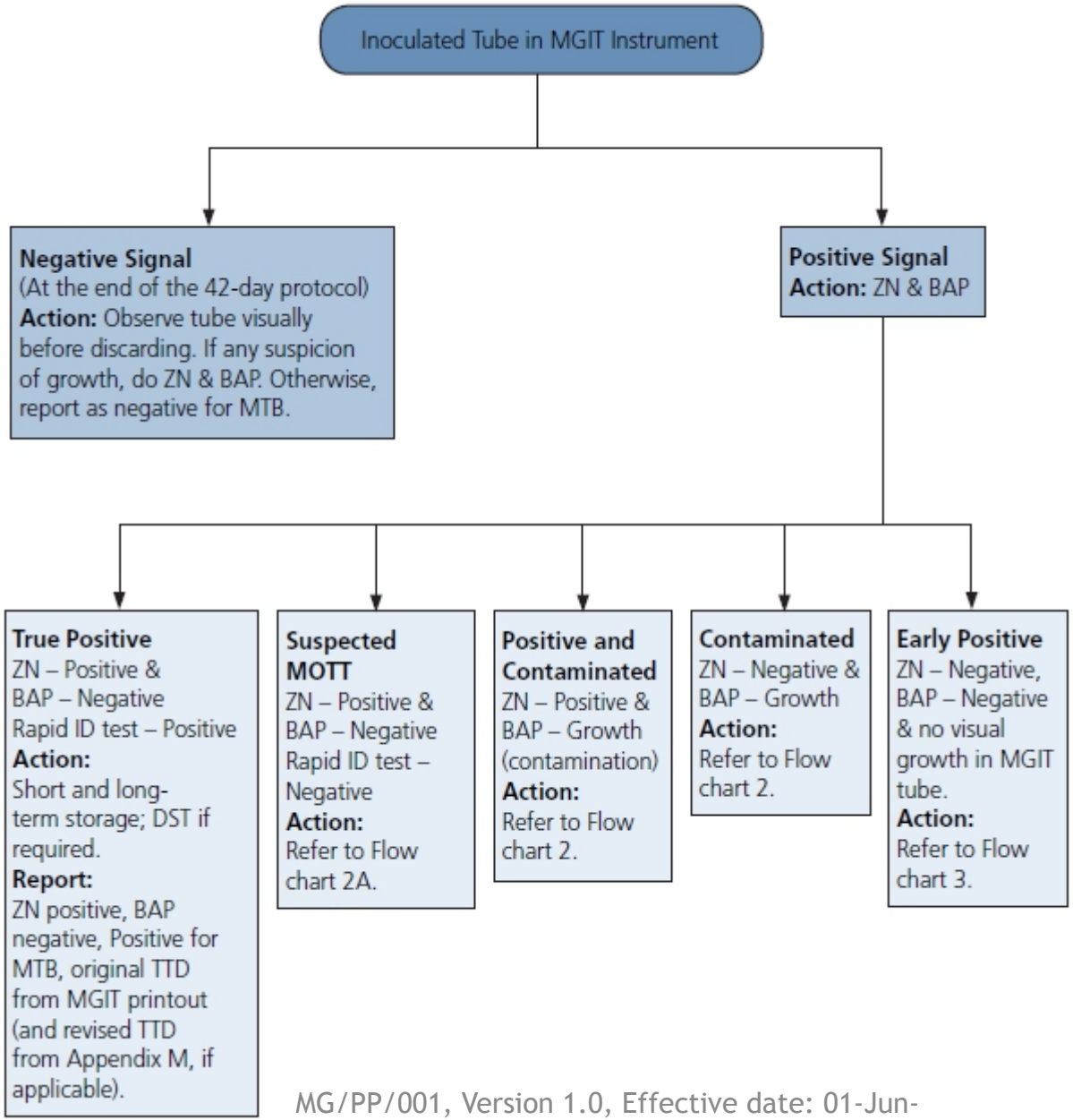


- Available at: http://www.who.int/tb/dots/laboratory/policy/en

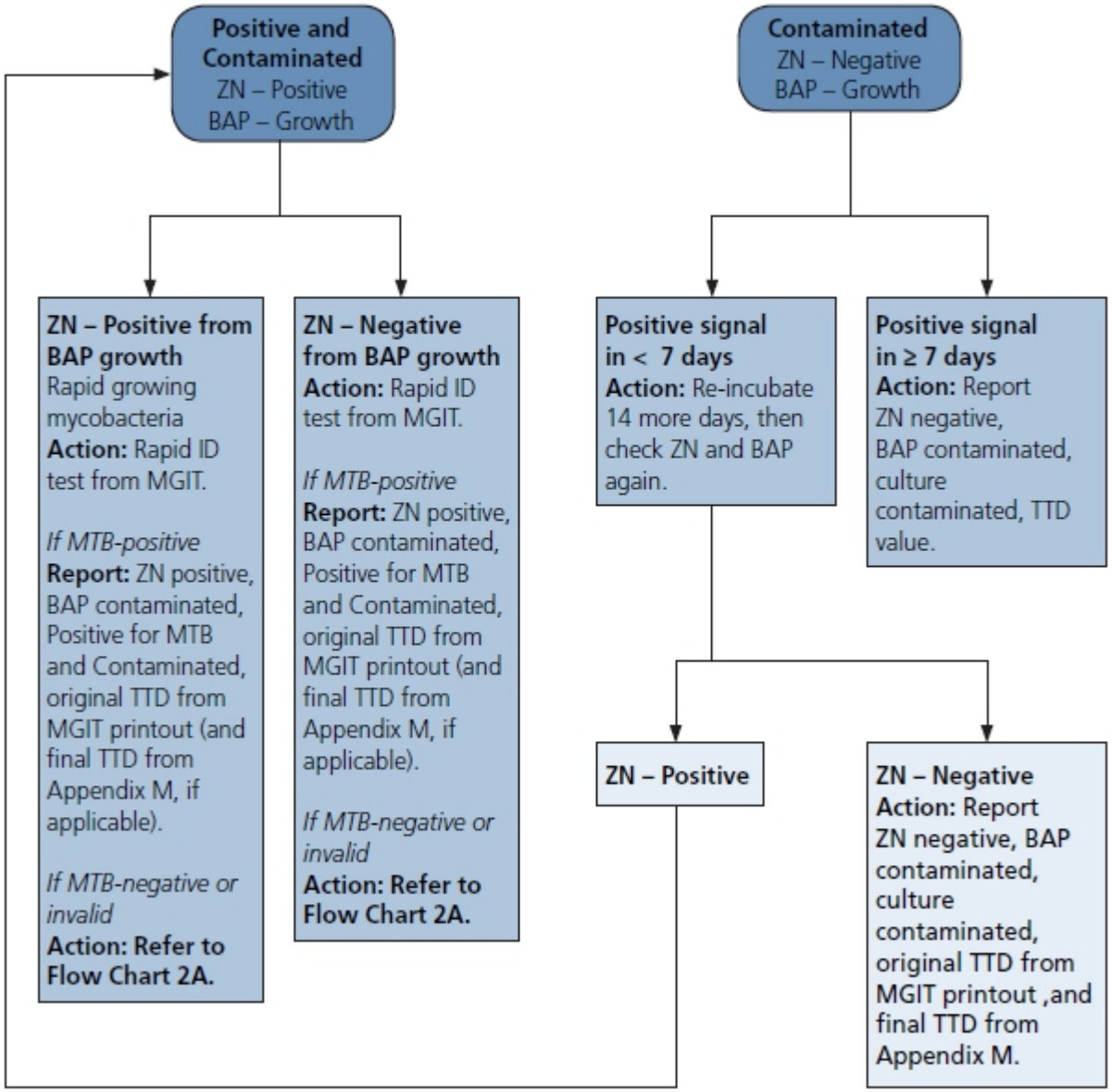
Placement of different tests at the levels of laboratory sophistication



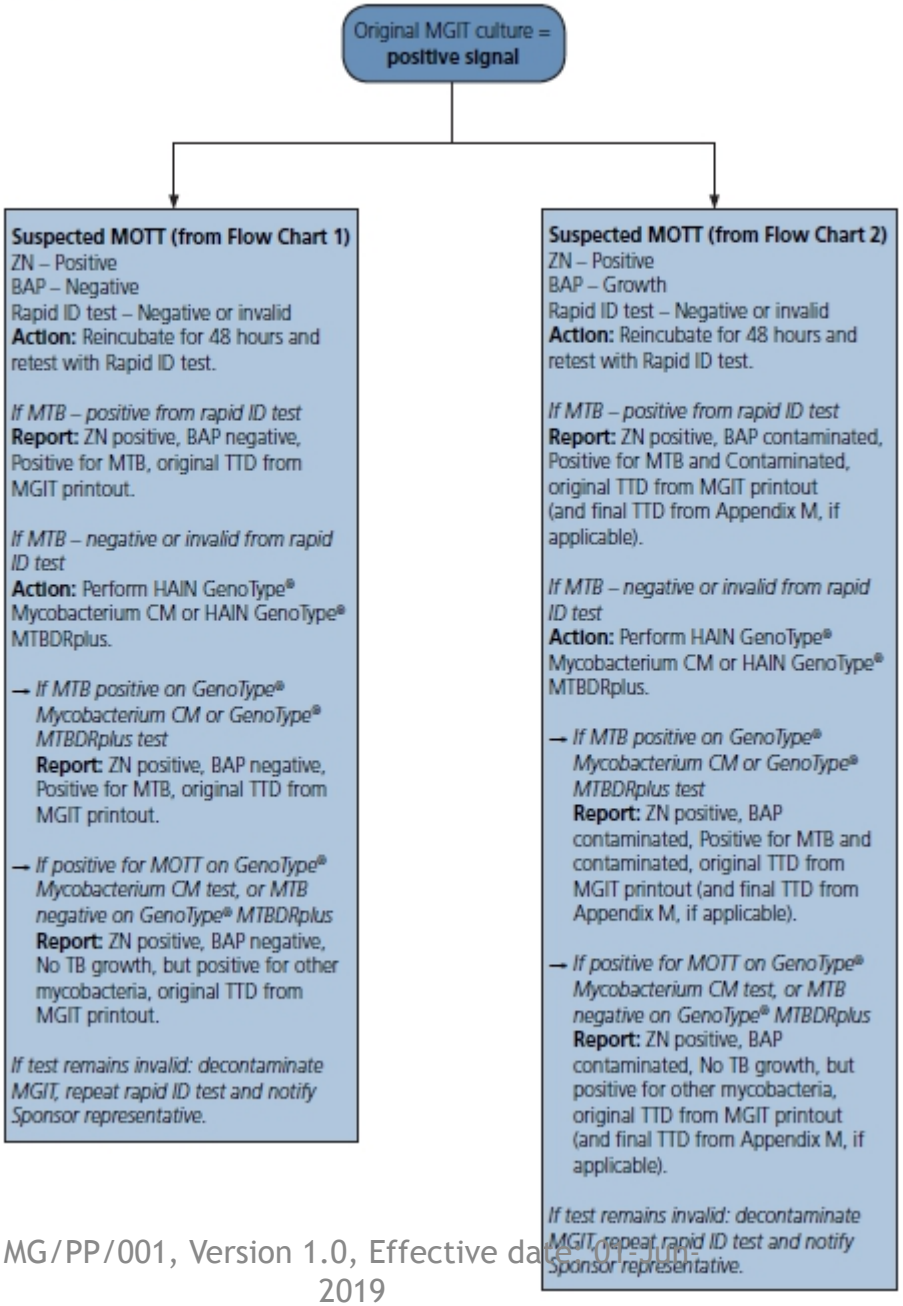
Flow Chart 1: General Algorithm MGIT 960 Cultures



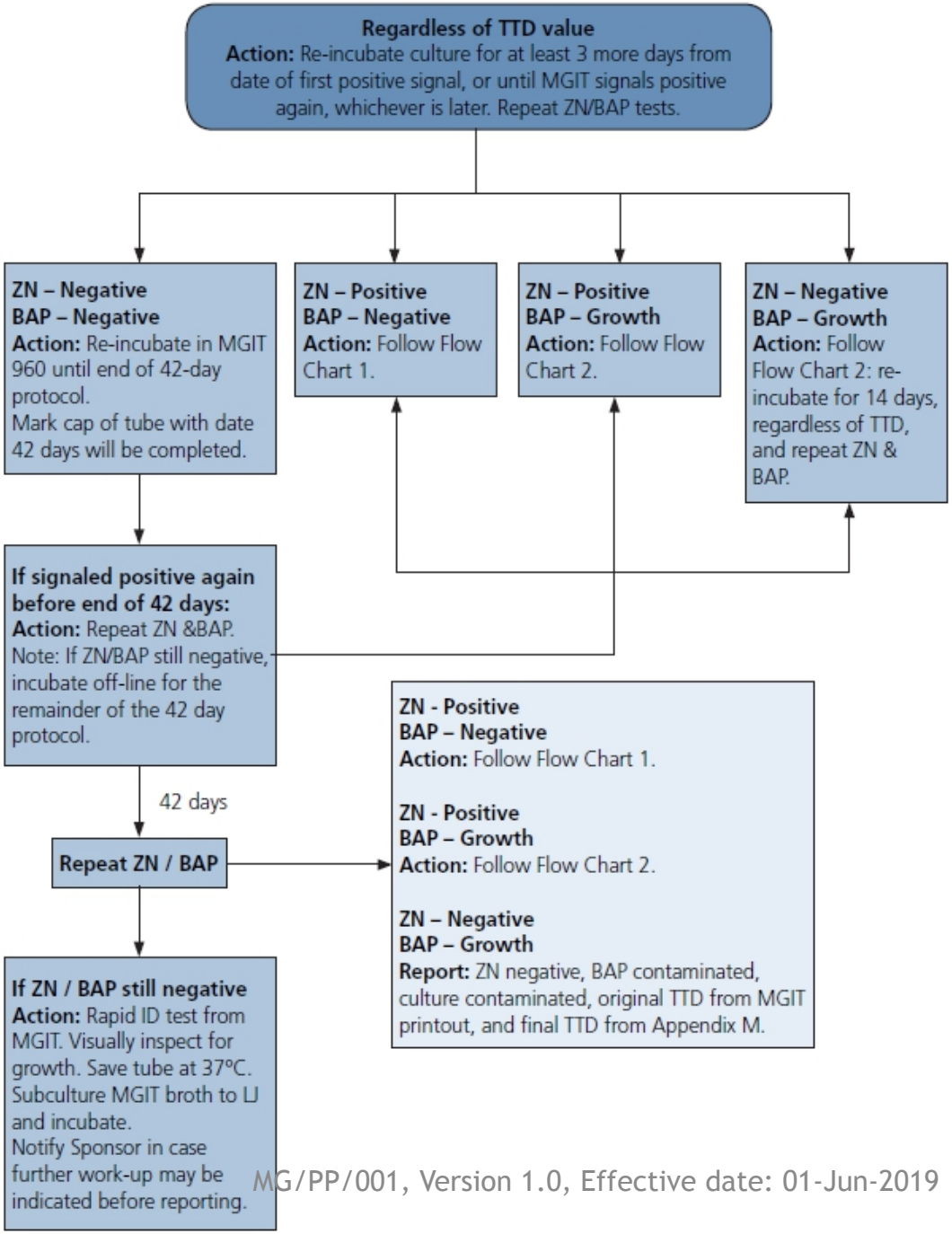
Flow Chart 2: Contaminated MGIT Cultures



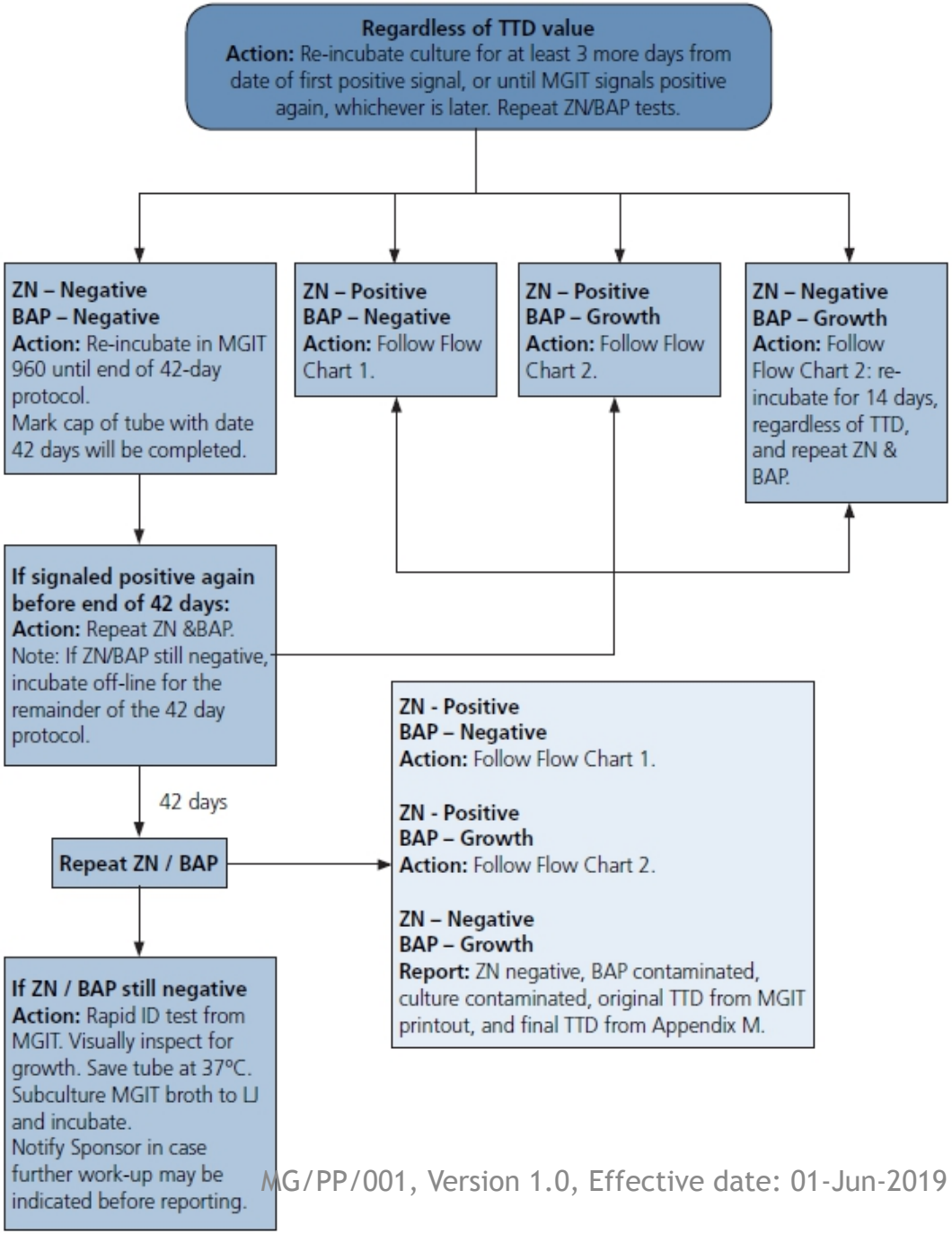
Flow Chart 2A: Suspected MOTT Cultures



Flow Chart 3: MGIT "Early Positive" Cultures (ZN/BAP negative)



Flow Chart 3: MGIT "Early Positive" Cultures (ZN/BAP negative)



Group exercise-10 minutes

1. List all the WHO approved TB diagnostic tests that you know

2. Identify the role of each of those tests in the MTB MGIT culture diagnostic algorithm.

Assessment

1. What is the role of culture & phenotypic DST in the diagnosis & management of TB with the advent of the rapid and more sensitive TB diagnostic assays?

Summary

1. Laboratories play a significant role under the End TB Strategy
2. Increasing access to rapid detection of TB and reaching universal access to DST will require major efforts
3. Future diagnostics will play a role in reaching targets of End TB Strategy, but we also need to make the best use of the currently available diagnostics
4. Multi-disease testing platforms will provide opportunities for laboratory integration
5. Connectivity provides opportunities for improved quality assurance and patient care
6. Adoption of WHO policy guidance on new TB diagnostics combined with use of GLI implementation guidance can help countries reach the targets of the End TB Strategy for laboratory strengthening

References

- www.gliafricatb.org
- www.who.int/tb
- http://www.who.int/tb/publications/molecular-test-resistance/en
- http://www.who.int/tb/dots/laboratory/policy/en

Acknowledgments

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gli
global laboratory initiative
advancing TB diagnosis

KNCV
TUBERCULOSISFOUNDATION

DEPARTMENT OF HEALTH AND HUMAN SERVICES - USA

CDC

World Health Organization

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