Mycobacterium and Nocardia Culture Algorithm

**CTB / Mycobacteria and Nocardia Culture**

- **Fresh tissue**
  - Sterile body fluid
  - Bone marrow

**Tissue Processing**

**Mycobacterium Culture, Concentration**

- Culture to broth medium and solid agar medium

**Growth in broth medium?**

- YES: Mycobacterium Probe Identification in Broth*
  - Organism identified?
    - YES: Preliminary interpretive report issued immediately
      - Final interpretive report issued at 42 days
    - NO: Mycobacterium or Nocardia identification by sequencing or MALDI-TOF mass spectrometry
      - Preliminary interpretive report issued immediately

- NO: Final negative report issued after 42 days of no growth

**Growth on solid agar medium?**

- YES: Mycobacterium identification by matrix-assisted laser desorption ionization-time of flight (MALDI-TOF) mass spectrometry*
  - Organism identified?
    - YES: Preliminary interpretive report issued immediately
      - Final interpretive report issued at 42 days
    - NO: Mycobacterium or Nocardia identification by sequencing or Mycobacterium Probe Identification (Agar)
      - Preliminary interpretive report issued immediately

- NO: Final negative report issued after 42 days of no growth

* Nucleic acid probes used for identification, when applicable, include those for *Mycobacterium avium*-intracellulare complex, *Mycobacterium gordonae* and *Mycobacterium tuberculosis* complex. MALDI-TOF mass spectrometry or 16S rDNA sequencing is used for identification, when applicable, for slowly and rapidly growing *Mycobacterium* species and aerobic actinomycetes (including Nocardia species and Streptomyces species).