Is *Mycobacterium tuberculosis* infection life long?

Find out today.

**ANALYSIS**

People with untreated *Mycobacterium tuberculosis* infection can transmit the bacteria to others and remain at risk for active tuberculosis. Markel & Solyankoh argue the need for testing in patients who are at risk.

6H → 4R → 3HP → 1HP → ?

UN General Assembly High-Level Meeting on the fight against tuberculosis

New York, 26 September 2019

THE END TB STRATEGY

UN General Assembly High-Level Meeting on the fight against tuberculosis

New York, 26 September 2019

Priftin® rifapentine

150 mg per tablet

Stop TB Partnership

GLOBAL DRUG FACILITY

~ 45$/pt.
Tests for LTBI: What do we have?

**Skin Test**

- **RT-23**
  - AJ Vaccines/SSI
  - Laboratorio Nacional de Salud, Mexico
  - Celltech Pharma S. A., Madrid, Spain

- **PPD-S2**
  - Tubersol® (Sanofi Pasteur)
  - Aplisol® (JHP Pharmaceuticals)
  - PPD-s (Nihon BCG Seizo Co., Japan)
  - PPD IC-65 (Cantacuzino Institute, Romania)
  - PPD (SPAN diagnostics/Arkray Healthcare, India)
  - PPD (Beijing Sanroad Biological Products Co., Ltd, China)

**IGRAs**

- **Diaskintest**
- **STANDARD E / F TB-Feron**
- **CLIA**
  - 46 min TAT
- **QFT-Diasorin LIAISON XL**

https://www.finddx.org/dx-pipeline-status/
New IGRA-like tests: Faster results - closer to patients

**Advansure™ i3 TB-IGRA**

- Automated chemiluminescence immunoanalyzer-based IGRA
- Cartridge
- Quantitative result in 15m + incubation
  

**QFT TB-Access**

- Single tube incubation system
- Battery back up
- Qualitative result
- Up to 20 min read time
- Data stored on cartridge with identifier for connectivity
- Planned CE mark and launch 2020

**IP-10 release assay**

- Two platforms: ELISA and Lateral Flow
- Quantitative test based on alternative biomarker IP-10
- Automation support
Specific skin tests: The ‘IGRA in the skin’

- ESAT-6
- CFP-10

- Safety profile on par with PPD
- IGRA like specificity in BCG vaccinated
- High agreement with IGRA and correlation with exposure in contacts
NDWG task force on LTBI

- Conducting a SR to establish evidence for clinical performance of Specific Skin tests

- Study guidance document under development with NDWG, FIND, WHO to guide evidence generation for new IGRA like tests

- WHO will be looking at evidence from new LTBI tests as it emerges with a view to their role in preventive action
Going mobile with new digital tools for TB rule out after LTBI testing

- LTBI care: a mobile app with dashboard to support programmatic management of LTBI
- Portable battery driven CXR
- Artificial Intelligence based CXR interpretation in seconds

Remaining challenges in LTBI

TB elimination requires a focus on LTBI

LTBI programs inevitably target healthy individuals

High NNT remains a major hurdle

Tests are imperfect in children and HIV infected, testing not a requirement in some settings

Country-level policy and practice - infrastructure not established
- PPD shortages and supply chain issues

Test-treat remains expensive & rifapentine is often unavailable in LMIC
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Test manufacturers
for providing background and images

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“An ounce of prevention is worth a pound of cure.” — Benjamin Franklin