

TB SCREENING & DIAGNOSTIC TOOLS PIPELINE*

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Treatment Action Group

KEY

POPULATION:

- Children
- Adolescents and adults
- People living with HIV

LEVEL OF THE HEALTH SYSTEM:

- Primary care center
- District laboratory
- Central laboratory

LEVEL OF DEVELOPMENT:

- 1 Early development
- 2 Late development
- 3 Commercialized

SAMPLE:

- Tongue swab

ABBREVIATIONS:

- TB/MTB:** tuberculosis
- RIF:** rifampicin
- INH:** isoniazid
- LAM:** lipoarabinomannan
- FQ:** fluoroquinolones
- AG:** aminoglycosides
- BDQ:** bedaquiline
- LZD:** linezolid
- EMB:** ethambutol
- KM:** kanamycin

* As of June 2024

** Only for HIV-negative people over 5 years

*** Treatment monitoring only

People at risk of TB

TB SCREENING

- Computer-aided detection (CAD) ● 2
- Point-of-care ultrasound (POCUS) ● ● ● 2
- Digital stethoscopes ● ● 1
- AI-based cough apps ● ● 1
- Breath tests ● ● 1

People with signs and symptoms of TB or positive TB screening result

TB DIAGNOSIS

- Rapid molecular tests for TB and RIF resistance
 - Xpert MTB/RIF Ultra ● ● ● 3
 - Truenat MTB Plus & MTB-RIF ● ● ● 3
- Rapid molecular tests for TB and RIF/INH resistance
 - STANDARD M10 MDR-TB ● ● ● 2
- Point-of-care molecular tests for TB ● ● ● 1
 - From companies: LumiraDx, Boditech, Co-Dx, Nuclein, Pluslife, Molbio, Salus Discovery, etc.
- Point-of-care urine-LAM tests for TB ● ● ● 1
 - From companies: Abbott, Boditech, SD Biosensor, Salus Discovery, Biopromic, etc.

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Screening/
diagnostic
testing
required
to rule out
active TB
before TPT
initiation

→
People
diagnosed
with active
TB

TB INFECTION TESTING**

- Point-of-care interferon gamma release assays (IGRAs) ● 3
 - ichroma IGRA-TB, STANDARD F TB Ag FIA

DRUG-SUSCEPTIBILITY TESTING

- Rapid molecular tests for TB and RIF/INH/FQ/AG resistance
 - IRON-qPCR RFIA Kit ● ● ● 2
- Rapid molecular tests for INH, FQ, and BDQ resistance
 - Truenat MTB-INH & MTB-FQ & MTB-BDQ ● ● ● 2
- High-throughput molecular tests for FQ/LZD/AG/EMB resistance ● ● ● 2
 - LiquidArray MTB-XDR
- Targeted next-generation sequencing for comprehensive DST ● ● ● 2
 - From companies: CleanPlex, Tuberculini, etc.
- Line probe assays ● ● ● 2
 - Genoscholar FQ+KM-TB II

People on TB treatment

DISEASE PROGRESSION & TREATMENT MONITORING

- Host-response molecular tests ● ● ● 1
 - Xpert MTB-HR, RISK6 signature assay, ISIT-TB
- Host-response immunoassays ● ● ● 1
 - TAM-TB
- Quantitative bacterial load tests*** ● ● ● 1
 - TB-MBLA, Capilia TB-Neo, PATHFAST TB LAM Ag

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People
with TB
infection