

# Tuberculosis Diagnosis

## Xpert MTB/Rif®

### Xpert MTB/Rif®: New technology to diagnose TB and rifampicin resistance

Fully automated molecular test.

It simultaneously detects *Mycobacterium tuberculosis* and rifampicin resistance.

Results in less than two hours from sample reception, allows health personnel to prescribe proper treatment on the same day.

It has minimal bio-safety and training requirements for laboratory staff.

The test benefits outweigh its cost: early diagnosis allowing adequate treatment (shortens the transmission, reduces the risk of death and provides equity in diagnosis).

Countries using Xpert MTB/Rif® 2013



By 2013: Brazil, Colombia, Costa Rica, Haiti, Guatemala, Guyana, Paraguay, Surinam, Mexico, Panama, El Salvador and Venezuela implemented Xpert MTB/Rif®.

Countries with purchase order with differential prices\* for Xpert MTB/Rif® 2014



■ Xpert MTB/Rif® requested  
■ No Xpert MTB/Rif® requested  
■ Does not qualify for differential prices

\* Differential prices for low and middle income countries

## PAHO/WHO recommendations for Xpert MTB/Rif® use for the programmatic management of MDR-TB in the Americas

Patient characteristics	Xpert MTB/Rif® indication	Xpert MTB/Rif® location‡
<b>MDR-TB:</b> Adult or child** with suspected MDR-TB <b>Strong recommendation</b>	As diagnostic test for TB and MDR-TB	<ul style="list-style-type: none"> <li>• Hospitals</li> <li>• Health facilities with high demand</li> </ul>
<b>HIV:</b> Adult or child** with HIV and suspected TB or MDR-TB <b>Strong recommendation</b>	As 1 <sup>st</sup> diagnostic test for TB and MDR-TB	<ul style="list-style-type: none"> <li>• Health facilities with high demand</li> <li>• Healthcare centers for HIV patients and/or populations at high risk for TB</li> </ul>
<b>TB suspect* with:</b> <u>Negative smear and/or chest x-ray</u> with suspected abnormalities (without risk of MDR-TB or HIV) <b>Conditional recommendation</b>	As additional diagnostic test for TB after screening with sputum smear and/or chest x-ray	<ul style="list-style-type: none"> <li>• Health facilities with high demand.</li> <li>• Health facilities for patients in special situations (prisoners, indigenous populations)</li> </ul>
<b>Extrapulmonary TB Suspect</b> Meningitis: <b>Strong recommendation</b> Other: <b>Conditional recommendation</b> Pleural: not recommended	As initial diagnostic test in cerebrospinal fluid samples. As additional test for the diagnosis in lymph nodes and other tissues	<ul style="list-style-type: none"> <li>• Hospitals</li> <li>• Health facilities with high demand</li> </ul>

\*TB suspect: an individual with cough lasting more than two weeks

\*\* Includes gastric aspirate samples

‡ It is advisable to place at least one Xpert MTB/Rif® unit at the National Reference Laboratory

### Xpert MTB/Rif® REVOLUTIONIZES AND TRANSFORMS TUBERCULOSIS DIAGNOSIS



Xpert implemented in one TB laboratory in El Salvador



[www.paho.org/tuberculosis](http://www.paho.org/tuberculosis)

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