

GeneXpert Pricing and the Need for Affordable TB Diagnostics

TAC/OXFAM Meeting
3rd South African TB Conference

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The GeneXpert MTB/RIF System

- Developers= Cepheid and FIND
- Test results in 2 hours
- New 2 year warranty
- Detects *M.tb* and rifampicin resistance simultaneously
- Automated molecular test
- By end of March 2012, 611 instruments and 863,790 cartridges procured in 61 countries (1/2 in SA)

QuickTime™ and a decompressor are needed to see this picture.

Source: Cepheid's GeneXpert Brochure

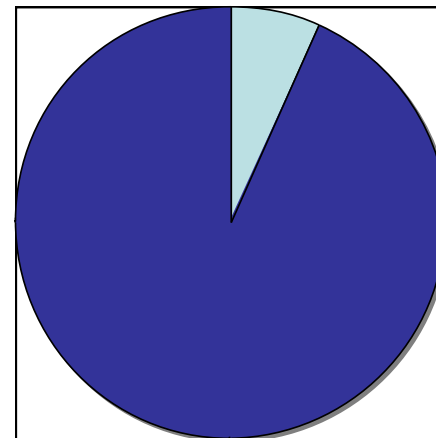
Costs of the GeneXpert MTB/RIF system

	Cartridge	Machine
Original cost (USD)	\$120	\$62,000
Public sector cost in 61 eligible countries (USD)*	\$16.86	\$17,000- \$17,500
Plus cost of water, electricity, calibration, shipping, maintenance, staff training, error reports, false positives		

*Current UNITAID Board Meeting likely to change this

South Africa versus Kenya

- South Africa: 478,980 cartridges procured (March 2012)
 - National Health Laboratory Services placed 30 instruments in 25 microscopy centers
 - By March 27, 2012 311,117 specimens processed
 - 16-17% *M.tb* in this cohort (national average 16.74%)-->52,068 positive TB tests through GeneXpert
 - Avg rifampicin resistance detection rates \approx 7%
- Kenya: 34,310 cartridges procured (March 2012)



■ Kenya
■ South Africa

Beyond GeneXpert

- Need for cheap, lab-free, point-of-care test
 - Researchers estimate that POC with 100% accuracy could save 625,000 lives per year
 - 85% sensitivity and 97% specificity might save 392,000 lives (22% of current TB death)
- Trunat by bigtec and Molbio?
 - sputum processing on semi-automated portable device
 - tested in-house using TDR screenbank
 - correctly identified all 233 *M.tb* strains (according to developers)
 - currently under clinical evaluation in India and South Africa