

Letter to Editor**geneXpert, is the India late?**

Sir,

The Xpert MTB/RIF – a rapid, fully-automated nucleic acid amplification test – is the first major breakthrough in tuberculosis (TB) diagnostics since sputum smear microscopy was developed more than 100 years ago. Further more in case of HIV positive patient's sputum microcopy has less sensitivity and culture takes three to six month while this test detects TB and Rifampicin resistance directly from untreated sputum in less than two hours. India is a country with a high burden of tuberculosis, multidrug-resistant tuberculosis and tuberculosis–HIV co-infection. By early diagnosis of resistance and at the pt care site only this intervention would reduce the transmission of primary drug resistance TB and would decrease mortality and morbidity.

To take the new test, patients produce a sputum specimen (fluid coughed up from the lungs) just as they do for microscopy and culture diagnostic methods. The specimen is mixed with a reagent and the mixture is put into the cartridge which is inserted into a module in the machine. The results are called up on a computer screen within two hours only. While WHO is playing a pivotal role in the rollout of this technology, in terms of policy and guidelines development, it was the Foundation for Innovative New Diagnostics (FIND), a non-profit Geneva-based outfit that works on improving diagnostics in poor countries, that first recognized the potential of this technology for tuberculosis control [1].

In India to fight the battle against TB, Revised National Tuberculosis Control Programme (RNTCP) expanded in several phases to cover the entire population by 2006 and is the largest TB programme

providing anti tubercular treatment for more than 1.5 million people annually.

RNTCP Programme screens nearly 25000 chest symptomatic persons per day for TB and registers 4800 TB cases of all forms for treatment out of which 3000 are smear-positive TB cases. Infrastructures for diagnosis include 13,000 peripheral laboratories with smear microscopy services and have examined more than 36 million persons through sputum smear microscopy and detected more than 7.5 million TB patients in the past five years [2].

However, the MTB/RIF test has intermediate sensitivity, better than smear microscopy but less than broth-culture and risking false-negative results, few weaknesses like the limited shelf-life of the diagnostic cartridges, some operating temperature and humidity restrictions, requirement for electricity supply, unknown long-term robustness, and the need for annual servicing and calibration of each machine are there but due to its benefits 77 countries including sub Saharan Africa has rolled out this technique in their control programme [1].

India is ethically obliged to phase-in the nationwide deployment of Xpert, a generic equivalent, or a quality lower-cost molecular diagnostic alternative, preferably made in India, as soon as reasonably possible. Further, India is ethically obliged to provide those diagnosed with first-line drug resistance universal access to second-line TB drugs. Doing so will reduce India's morbidity and mortality associated with diagnostic delay, dropout, and mistreatment of TB, and help stem the country's growing TB crisis [3].

Enrolling Xpert in national programme would provide a great boost to the programme activities. By having state of art technology in the government set up there is a chances of utilization of it by the private sectors (around 60%-70% drainage). So problem of gap in the TB case NOTIFICATION would be solved to the large extent.

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Corresponding Author

Dr Kapil Gandha
Assistant Professor
Department of Community Medicine
M P Shah Govt. Medical College
Jamnagar, Gujarat, India
E-mail: kapilgandha@gmail.com

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