

Eyes and ears

New technologies vital to TB fight: Are programmes ready to adopt them?

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Everything from failing smear microscopy techniques to new high-tech innovations are being discussed by experts attending the 38th Union World Conference on Lung Health in Cape Town as they attempt to tackle the many obstacles facing the fight against tuberculosis (TB).

Dr Saidi Egwaga, the head of Tanzania's TB programme, told delegates at the conference that previously trusted techniques, such as smear microscopy, were now recording sensitivity failure rates of up to 50 percent.

The failure of the drugs that are widely used in Africa and other developing regions, has led to the development of multi-drug resistant (MDR) TB and conference delegates have focused heavily on discussions over the way to tackle this crisis.

"New means of ensuring that new technologies reach people through re-tooling—the process of preparing health systems at country and global levels for the uptake of new TB tools—are urgently needed," Dr Egwaga said.

According to the Stop TB Partnership, today's first-line anti-TB medicines are more than 40-years-old and must be taken for between six and nine months. Erratic or inconsistent treatment generates drug resistance.

The most commonly used TB diagnostic tool, sputum smear examination with a light microscope, is more than 100 years old and is relatively insensitive (particularly in the presence of HIV co-infection), and giving no indication of drug sensitivity whatsoever. The bacilli Calmette–Guérin (BCG) vaccine is more than 85-years-old, and only provides acceptable protection against some forms of the disease in infants, and may actually pose a risk to children living with HIV.

But there is some good news. Progress is being made towards the development of new medicines, diagnostics and vaccines to combat TB. The Global Plan to Stop TB 2006-2015 estimated that there were 27 new anti-TB medicines in the production pipeline, along with 15 new diagnostic tests and eight new TB vaccines. Since the publication of the Global Plan in 2006, the number of candidate technologies has increased.

With the launch of the first of these new technologies expected within the next two years, the Stop TB Partnership says the time is right to start preparing to use them, in order to minimise the delay between licensure, availability and adoption. The goal is to spread these new tools rapidly and widely so they can be used to care for the people who will benefit from them most.

But Egwaga cautioned that the manner in which these tools were delivered would determine whether or not new technologies under development elsewhere would be adopted or rejected by patients and healthcare workers, who may be subject to preferences and prejudices of their own.

Egwaga also said that efforts should now be directed towards preparing and planning for the introduction of new technologies in the countries and communities that could be considered 'recipients'. This would involve analyses of the stakeholders to be engaged and studies of country-based health systems and the rules and procedures they work under.

He said the global community should begin asking questions about the availability of the necessary human resources in these countries and procurement processes, and start to identify areas in which technical assistance or training would be needed.

Egwaga said this was particularly important given the fact that in countries such as Tanzania, with long and tedious procurement procedures, supply orders could be placed in March but come December there would still be no sign of the products.

He called for transparency on the part of those seeking to promote new technologies and said that recipient countries often shied away from adopting new technologies the moment some issues appeared unclear.

"Often recipient countries discover that not all the necessary information was made available and hidden costs only get known once the technology has been adopted," Egwaga said. The result is that few people get excited about announcements of new breakthroughs."

It is imperative that the procurement and running costs of new technologies and treatments should be declared early and Egwaga recommended that adequate time should be set aside to allay fears over new technologies, as apprehension was often expressed as a resistance to new developments, particularly among health workers with few qualifications.

"They fear that the adoption of new technologies would render them jobless, particularly where no prior on-the-job training was not offered and where the tools are not easy to use," said Egwaga.

Lyn Vianzon, Manager of the National Tuberculosis Programme in The Philippines, suggested that widening the group of stakeholders involved in the development process could help hasten the adoption of new TB intervention and prevention technologies.

"Once the new tools have been pilot-tested, key individuals or groups most likely to be affected by the retooling process should be identified to champion it," she said.

Ikushi Onozaki, Director of the International Programs Research Institute of TB in Japan and member of the Anti-TB Association of Tokyo, said cultural considerations would also be important while planning retooling efforts.

More information on the Task Force on retooling: www.stoptb.org/retooling