



Scientific evidence of the effectiveness of the EugeneBell program in DPRK has been recently published in a major medical journal

(<http://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1002062>). The DPRK Ministry of Public Health (MOPH) has expanded the MDR TB treatment program to over 1000 patients enrolled annually. But most of the population is still not covered, meaning that most North Korean MDR TB patients are neither diagnosed nor treated.

The MOPH recognizes the seriousness of this problem and has developed an ambitious plan to scale up the MDR TB program throughout the country. At the current time, the most critical challenge is the lack of access to laboratory diagnosis. Without laboratory diagnosis, it is impossible to determine which TB patients are infected with drug-resistant strains.

The MOPH plan focuses on Xpert MTB/RIF (http://www.who.int/tb/publications/Xpert_factsheet.pdf). Xpert MTB/RIF is a new diagnostic test that detects DNA in patient sputum. This test has quickly become the standard of care globally. EBF has used Xpert for the past few years on its delegation visits to diagnosis MDR TB patients at each site and start patients on effective treatment on the same day.

A national Xpert network based in hospital and clinics would indeed be capable of testing 15,000 patients annually. Several machines would be needed for each province, depending on the geography and population distribution. There are several models of the machine that differ by capacity, allowing them to be matched to the specific type of facility (district hospital, TB outpatient department, health center). Approximately 50-100 machines would be needed to cover the entire country.

Each Xpert cartridge is prepared with one sputum sample, and once loaded into the machine, returns a diagnosis of MDR TB in less than two hours. The disposable cartridges are then destroyed. Approximately 15,000 cartridges per year would be needed to test all patients at high risk for MDR TB.

This is a rational and feasible plan to expand access to MDR TB diagnosis to the entire country. In other developing countries, international donors such as the Global Fund for AIDS, TB and Malaria have funded the expansion of Xpert networks, resulting in a dramatic increase in the numbers of patients diagnosed with MDR TB. Unfortunately, in the case of DPRK, similar international support has been lacking. In fact, restrictions on the export of Xpert have hindered efforts to implement this technology.

Support from ROK and permission by the US to allow the use of this effective and widespread technology could result in a huge number of lives saved.

A handwritten signature in black ink, appearing to read "KJ Seung".

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