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KAZAKHSTAN

FIRST PERSON

Xpert Machines Allow for Life-saving Rapid Diagnosis of MDR-TB

New machines provide a fast diagnosis of drug resistant TB



Photo: KNCV Foundation

Alexander wants to finish TB treatment to lead a healthier life.

“It was great that the AIDS center sent me for the GeneXpert test because I got on treatment immediately.”

– Alexander Trushkin

On July 4, 2012 Alexander felt weak and had a fever. The next day he went to the AIDS center in Almaty to get examined. Alexander is 28 years old. A drug user since the age of 20, he is also HIV positive. The AIDS center referred him to the city’s TB dispensary. TB often develops in people living with HIV and is the leading cause of death among HIV-positive people. Alexander was tested using the Xpert MTB/RIF system and diagnosed with MDR-TB. One week later, he was put on treatment and he is now feeling better.

For a country with a high burden of multidrug-resistant tuberculosis (MDR-TB), such as Kazakhstan, the ability to identify patients with resistance to first line drugs and put them on treatment is a critical component of a TB control program and of vital importance to patients. Conventional culture and drug sensitivity tests take weeks to complete. The recent availability of rapid diagnostic tools for MDR-TB detection significantly reduces the time between patient referral for testing and initiation of appropriate treatment.

USAID is supporting the introduction of the Xpert MTB/RIF system under the TB CARE I project. Xpert MTB/RIF has been endorsed by the World Health Organization for use in the countries with the highest rates of MDR TB in the European region. It is an automated diagnostic test that can identify Mycobacterium tuberculosis and resistance to rifampicin (RIF) in just two hours. Resistance to rifampicin, one of the main first line TB drugs, is a reliable marker of MDR-TB and is an indicator for MDR-TB treatment. TB CARE I procured four machines in April 2012 and installed them in four TB labs serving National TB Center, Almaty city, Akmola, and East Kazakhstan oblasts.

From July to October 2012, 415 patients at the four project sites were diagnosed with TB, of whom 229 were found to be resistant to RIF. Most of the MDR-TB patients were immediately put on treatment with second line drugs, including Alexander Trushkin.

This rapid diagnostic system provides vital opportunities for patients like Alexander to begin lifesaving treatment. Alexander heard about Xpert MTB/RIF for the first time at the TB dispensary. He was excited that he was able to know his diagnosis immediately and get the right treatment. “I feel better now and I will continue and finish my

treatment so I can lead a healthier life,” Alexander shared during a recent visit.