



POOR TREATMENT SUCCESS RATE AMONGST DRUG RESISTANT TUBERCULOSIS PATIENTS IN UKRAINE: WHAT MUST CHANGE?



MULTI-DRUG RESISTANT TUBERCULOSIS (MDR-TB) IN UKRAINE: SITUATION AND CHALLENGES

With a population of 45 million, Ukraine is Europe's second largest country. It is one of the 27 high burden multi-drug resistant tuberculosis (MDR-TB) countries in the world with annual numbers of new TB cases constantly growing. In 2009, 2010, 2011, 2012, 2013 there were 3492, 5336, 4305, 6934, 9650 cases, respectively¹.

MDR-TB treatment in Ukraine has been based on a dual phase model. In 2006-2011 patients were hospitalized for the intensive phase of 6-8 months and discharged for an ambulatory continuation phase of 12-18 months delivered through TB dispensaries. In 2013 new bacteriologically confirmed cases tested for MDR-TB were 81%, re-treatment cases tested for MDR-TB were 22%, estimated MDR-TB cases were 20%².

INADEQUATE AMBULATORY TREATMENT COMPROMISES – QUALITY OF CARE

In 2013, the National Tuberculosis Institute (NTI) conducted a detailed assessment of MDR-TB patients starting treatment in their facility between 2006-2011. The research described outcomes after in-patient intensive phase at NTI (6-8 months) and at the end of treatment at regional TB dispensaries (ambulatory continuous phase). But treatment outcomes were not available for over one third of patients, because in those years there no National, only NTI electronic database³.

The national figures for MDR-TB treatment show treatment success rates only 34% in 2011 cohort², which coincides with the results of the research³. Possible reasons for this were some problems at regional TB dispensaries (ambulatory continuous phase): the absence of a full number of anti-tuberculosis drugs for MDR-TB treatment; insufficient patients social support services; poor National systems for monitoring Adverse Drug Reaction (ADR) to anti-tuberculosis drugs (ATD); prevailing centralized model of care with long-term hospitalization.

Detailed assessments of MDR-TB treatment and outcomes, however, have not been available to inform improvements in MDR-TB management and control: it was first of research in Ukraine, published at the peer-reviewed medical journal.

PRIORITY ACTIONS for new NTP in Ukraine: Step by step

First step:

To decide program problems

- 1 Evaluate the use of interventions for improving patient adherence to treatment by 2016.
- 2 Introduce at least one pilot phase for improved monitoring systems of adverse drug reactions by 2016
- 3 Accelerate, expand and improve quality of ambulatory care of MDR-TB patients through general practitioners, dispensaries and home care by 2016

Second step:

To use new approaches

- 4 Introduce new drug regimens for MDR-TB in pilot projects by end of 2016



EFFORTS BY THE NTP SHOW GREAT RESULTS. MORE NEEDS TO BE DONE

In 2013 Ukraine's national TB control programmer made laudable efforts to address the ADR problem by introducing a National electronic TB register system. This allows universal access to treatment outcomes from all decentralized sites. Without reliable and high quality information, Ukraine would not be able to analyze treatment outcomes with confidence. We must improve the system for recording MDR-TB treatment outcomes in the National TB Register by end of 2016.

The high rates of loss to follow-up (LTFU), death and failures, particularly during the continuation phase, may be due to a number of factors, including long periods of treatment, as well as adverse drug reactions. These have a negative effect on adherence, as do weaknesses in patient education and social support during the continuation phase. Until Ukraine provides specific social support for all TB patients the number of patients LTFU will not decrease. Similarly, if Ukraine does not develop an effective system of monitoring and management of ADR the country will not be able to improve pharmacovigilance and Ukraine will be unable to access the much-needed new drugs.

KEY FINDINGS³

1 At the end of the intensive phase, 67% of all MDR-TB patients were alive with negative TB cultures

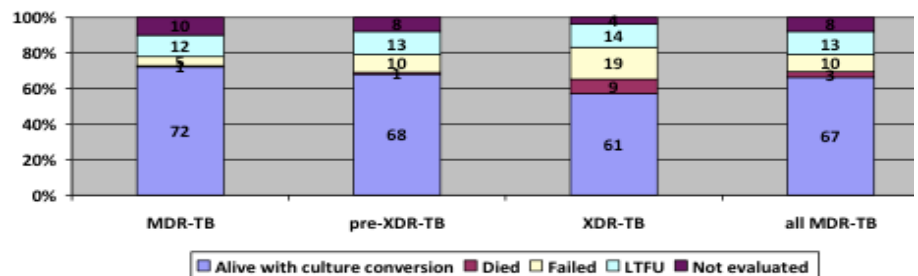
2 Treatment success at the end of the continuation phase was only 21%.

3 15% of patients were lost to follow-up.

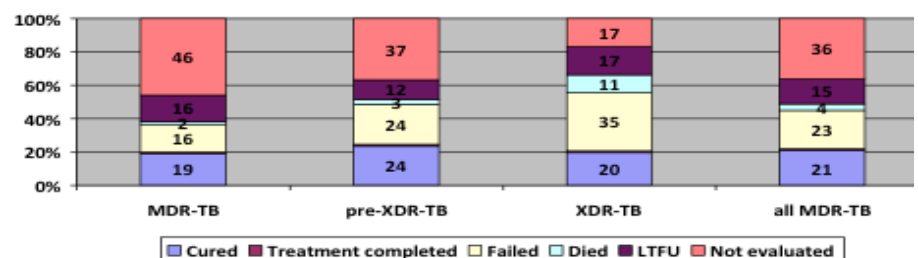
4 Around half of all MDR-TB patients reported at least one Adverse Drug Reaction to anti-tuberculosis drugs

REFERENCES

1. Ukraine Ministry of Health. National tuberculosis report, Ukraine Ministry of Health, 2015 <http://ucdc.gov.ua/pages/diseases/tuberculosis/surveillance/statistical-information>
2. World Health Organization. Global tuberculosis report 2013. http://apps.who.int/iris/bitstream/10665/137094/1/9789241564809_eng.pdf
3. Lytvynenko N. et al. Management of multi- and extensively drug-resistant tuberculosis in Ukraine: how well are we doing <http://dx.doi.org/10.5588/pha.14.0035>



Graphs 1. Treatment outcomes at the end of the intensive phase, National Tuberculosis Institute, Kiev, Ukraine, 2006–2011



Graphs 2. Treatment outcomes at the end of treatment, National Tuberculosis Institute, Kiev, Ukraine, 2006–2011

CONTACT:

Nataliia Lytvynenko
 State organization "NATIONAL INSTITUTE OF
 PHTHYSIOLOGY AND PULMONOLOGY named
 by F.G. Yanovsky Academy of medical
 sciences of Ukraine» (National TB Institute)
 Telephone: +380-50-011-03-33
 Address: M. Amosova str., Kyiv, Ukraine,
 03680

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