ANTI-TB DRUG PROCUREMENT AND DISTRIBUTION SYSTEM IN THE REPUBLIC OF BELARUS

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19 Territories: With MDR Among New TB Cases > 6% (1994-2007)

- Dominican Republic*
- Heilongjiang Province, China
- Inner Mongolia Autonomous Region, China
- Henan Province, China
- Orel Oblast, RF
- Donets Oblast, Ukraine
- Tomsk Oblast, RF
- Tashkent, Uzbekistan
- Kazakhstan*
- Estonia
- Mary El Oblast, RF
- Ivanovo Oblast, RF*
- Latvia
- Liaoning Province, China
- Lithuania
- Armenia
- Orel Oblast, RF
- Donetsk Oblast, Ukraine
- Republic of Moldova
- Baku City, Azerbaijan
- RB, surveillance data
TB in General Population (per 100,000), DR and MDR Rates Among New and Previously Treated Cases

TB Incidence

MDR PT

MDR NC
Sources of Funding of Anti-TB Drugs

- Republican budget
- Local budgets
- Global Fund to Fight AIDS, Tuberculosis and Malaria
Centralized Procurement of Selected Anti-TB Drugs

- Funds allocated in the republican budget by the Ministry of Health in 2014, per Order of the MH of the RB of 08.11.2013, No. 1140
- Z, Eto (H, R – excluded based on leftover quantities)
- Cm, PAS, Pto, Cs, Lzd – included for the first time
Forecasting and Estimating Need for First-Line Anti-TB Drugs

Peculiarities:

- Treatment duration shorter than standard procurement period
- Standardized treatment regimens
- Availability of fixed-dose combination drugs (FDCs)
- Maintenance of significant buffer stock
  - With correction for shelf life
Forecasting and Estimating Need for Second-Line Drugs

Peculiarities:

• Duration of MDR-TB diagnostics
  – Express tests (Xpert, Hein): days
  – DST on liquid media (Mgit): weeks
  – DST on solid media: months

• Duration of treatment is longer than procurement period and shelf life of some drugs
  – Regimens change during treatment
  – Drug resistance patterns change
  – Adverse reaction or lack of treatment effect
  – Intolerable side effects
Peculiarities:

• High rates of loss to follow-up patients due to defaults or deaths
• Actual number of patients on treatment is less/more than documented
• Actual drug intake does not correspond to the treatment regimen (incomplete, missed doses, etc.)
• Excessive “individualization” of treatment regimens leading to frequent, unjustified treatment
Who Performs Needs Estimation?

Various specialists at different stages:

- Ministry of Health of the Republic of Belarus
- RSPC of Pulmonology and Phthisiatry
- Distribution network: specialists of BelPharmacia
- Treatment facilities: doctors, nurses, pharmacists
- Consultants: donors, STOP TB partnership, Global Fund
Members of Drug Supply System

- Transnational suppliers
- Local manufacturers
- Pharmacies
- State Procurement Departments (MHRB, BelPharmacia) NTP
- Regional treatment facilities
- Districts treatment facilities
- Primary health care
- Donors Global Fund
- RSPC of Pulmonology and Phthisiatry

Monitoring and evaluation of anti-TB drug stock leftovers in facilities and warehouses – monthly.
Situational Analysis (SWOT Analysis)

SWOT – analyses of:

- Strengths
- Weaknesses
- Opportunities
- Threats
Strengths

• Availability of all good quality anti-TB drugs
• Centralization of the order for anti-TB drugs at the Republican level
• Support from the international organizations
• State TB Program
• Availability of a 6-month buffer stock of anti-TB drugs
Weaknesses

• Imperfection of MDR-TB patient registration
• Lack of staff properly trained on drug management
• Quantification of anti-TB drugs not based on the number of patients, but on average annual consumption
• Poor coordination in the drug management system (several sources of funding)
• Logistics issues
• Difficulty of re-allocation between regions and institutions
• Difficulty of calculation: defaults and treatment failures, regimen changes, new courses of treatment
• High cost of second-line anti-TB drugs
Opportunities

- Staff training on drug management
- New state TB program
- Procurement of anti-TB drugs using local budget funds
- Monitoring and evaluation, operational studies, analyses, decision making
- “Drug management” component of the TB register
Threats

- Amplification of XDR-TB, development of TDR-TB
- Limited funding
- Limited manufacture of second-line anti-TB drugs
Conclusions

• Precise and well-functioning management information system for the program, patients, and drugs is the key component of the process of needs quantification and drug supply planning

• Continuous analyses of the experience and process to define weaknesses and tendencies of the program is needed

• Continuous monitoring of anti-TB drug stock to prevent shortages or overstock and losses due to shelf-life expiration is needed