Conclusions. A simple score (CRD-45 TB-score) based on 4 clinical variables was highly predictive for the in-house mortality in patients with tuberculosis from this cohort. Generability of this score to predict in-house morbidity of patients with tuberculosis should be prospectively evaluated in a larger multicenter cohort.
Key words: tuberculosis, in-hospital death, risk evaluation, CRD-45 TB-score

103. COMPARISON OF MOLECULAR DRUG RESISTANCE TESTING AND PHENOTYPIC DRUGRESISTANCE TESTING IN MULTI- AND EXTENSIVELY DRUG-RESISTANT TUBERCULOSIS

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Introduction. For the treatment of MDR and XDR tuberculosis, it is important to select the most suitable drug regimen. The resistance testing procedure should be as fast and accurate as possible. Within the framework of personalized medicine, the most suitable therapy approach for the individual patient should be found. With the faster available information from a new form of susceptibility testing, the best regimen could be created in a shorter period of time and the appropriate therapy for the patient could be initiated.
Aim of the study. With our study we want to compare the genotypic drug resistance testing with phenotypic drug resistance testing. It will demonstrate to what extent the measured resistance results overlap and where there may be differences.
Materials and methods. We compared the utility of genotypic DST assays with phenotypic DST (pDST) using Bactec 960 MGIT or Löwenstein-Jensen to construct M/XDR-TB treatment regimens for a cohort of 25 consecutive M/XDR-TB patients and 15 possible anti-TB drugs. Genotypic DST results from Cepheid GeneXpert MTB/RIF (Xpert) and line probe assays (LPAs; Hain GenoType MTBDRplus 2.0 and MTBDRsl 2.0) and whole-genome sequencing (WGS) were translated into individual algorithm-derived treatment regimens for each patient. We further analyzed if discrepancies between the various methods were due to flaws in the genotypic or phenotypic test using MIC results.
Results. Compared with pDST, the average agreement in the number of drugs prescribed in genotypic regimens ranged from just 49% (95% confidence interval [CI], 39 to 59%) for Xpert and 63% (95% CI, 56 to 70%) for LPAs to 93% (95% CI, 88 to 98%) for WGS. Only the WGS regimens did not contain any drugs to which pDST showed resistance. Importantly, MIC testing revealed that pDST likely underestimated the true rate of resistance for key drugs (rifampin, levofloxacin, moxifloxacin, and kanamycin) because critical concentrations (CCs) were too high.
Conclusions. With the analysis of the genome, even in M/XDR strains with complex resistance patterns it is possible to characterize these resistances. The procedure is fast and the results are very similar to those of phenotypic testing. Only for some drugs, the susceptibility test has to be carried out phenotypically in order to compile the final regimes.
Key words: Mycobacterium tuberculosis; drug resistance testing; molecular genetics

104. ADDITIONAL SECOND LINE TB DRUG RESISTANCE IN HIGH BURDEN MDR TB SETTING

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Introduction. Standard treatment regimen containing 4 second line tuberculosis drugs (SLD) is currently prescribed in multidrug resistant tuberculosis (MDR TB) patients while drug sensitivity test (DST) results are pending. However, potential additional resistance to SLD could lead to exposure of these patients to non-efficient toxic regimen during 2-4 weeks of pending period. Therefore, data on frequency of additional SDL resistance in MDR TB patients is crucial for programmatic decision on treatment policies in this group of patients.
Aim of the study. To assess the frequency and spectrum of additional SLD resistance in MDR TB patients in a high burden Eastern European setting.
Materials and methods. We have retrospectively analyzed routinely collected solid culture-based drug sensitivity test (DST) results from samples used for MDR TB diagnosis available in national electronic TB database (SIME TB) for year 2011 in the Republic of Moldova. A comparative analysis of additional SLD resistance in new and retreatment MDR TB patients was performed.
Results. 791 DST results from unique MDR TB cases were included in to the analysis (520 primary and 269 retreatments). The combine rate of additional resistance to fluoroquinolone alone, injectables alone or both was 14.2 %. In case of retreatment cases the rates of fluoroquinolones and combined fluoroquinolones + injectables resistance were significantly higher than those in primary patients (9.4% vs 4.4%; p=0.008 and 4% vs 1.3%; p=0.02 correspondingly). No significant differences were found in injectables resistance rate in retreatments compared with the primary cases (6.9 vs 5.6%; p=0.5). Additional resistance to other second line TB drugs (ethionamide, cycloserine, PAS) was registered in 24.9% of cases. Similarly, a higher resistance rate was found for these drugs in retreatments than in primary cases (29.7 vs 22.3; p=0.02). An important rate (69.3%) of ethambutol resistance was observed, with an unexpected higher rate in primary versus retreatment cases (72.1% vs 64.1%; p=0.02).
Conclusions. At least one fourth of MDR TB patients in the studied setting have additional resistance to at least one SLD that put them at risk to receive an inappropriate treatment when a standard MDR treatment regimen is started.
Key words: tuberculosis, DST, resistance, second line drug

105. PARTICULARITIES OF TB IN PREGNANT WOMEN

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Introduction. TB most commonly affects women during their reproductive years, being recognized as an important cause of morbidity and mortality in pregnancy.
Aim of the study. Studying the particularities of pulmonary TB evolution in pregnant women; identifying the TB risk factors; assessing the results of antituberculosis treatment and pregnancy in women suffering from TB.
Materials and methods. There have been examined the in-patient observation checklists and out-patient medical histories of 74 pregnant women aged from 17 to 39, recorded as having active TB identified in the territory of the RM, from 2012 to 2017.
Results. There has been stated that the majority of cases of TB were identified through the passive method - 60.8%. In 54% of cases, pregnancy occurred on the background of Bathe most frequent clinical forms were infiltrative pulmonary TB - 72.9% and exudative pleurisy - 8.1%. The process developed with complications in 20.2%, and the most widespread were hemoptysis and pleurisy, each constituting 40%. New cases of TB were recorded in 78.3%. Drug resistance was identified in 50%, 75.6% of which were the cases of MDRTB. The tuberculosis risk factors include: comorbidities - 63.5%, 8.1% of which is HIV/AIDS; contacts with TB patients - 48,6%; unsatisfactory life conditions - 43.2%; unhealthy habits - 33.7%. The rate of successful treatment