**Title:** Epidemiology of effect of drug resistance in 630 pulmonary TB in Belarus in 2010

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**Abstract:** Background & objective: World Health Organization in 2006 prepared TB country profiles for most countries and indicated case notifications by sex and age. Aim of this work was determination epidemiology of drug resistance in a study population included all cases of active tuberculosis with culture-positive that have been referred to Belarusian state medical university from January 2009 through January 2010.

**Matherials & Methods:** The anti-microbial drug susceptibility tests (AMST) were performed for all of first and secondary line drugs using CDC standard for all isolates. In this study, we divided the patients in 5 group based on resistance to principal anti mycobacterium drugs. Multidrug-Resistants (MDR), Extensively drug-resistant (XDR), monoresistant (Mono) to one of the isoniazid or rifampicin and First Line Drugs resistant (FLR) isolates were determined.

**Results:** From 630 pulmonary TB patients, 185(29.3%) were women. The differences mainly were seen in age group of 25-65 years. The Male/Female ratio was increased by increasing of age and it was maximum in 45-54 then was lower. Approximately 60% of all of patients were MDR and FLR that resistant at minimum to isoniazid and rifampicin. We found interesting data about untreated patients (primary tuberculosis) in XDR group (11 patient-1.77%) and MDR (104 patient-16.48%). In XDR group not found any patient less than 15 year. The rate of TMDR (MDR plus FLR) was been at maximum in age group of 25-44 and in this case Male/female ratio was 3.17. Overall, 3% of all patients were under 15 years and 8.56% above 65 years. In both groups, the Male/female ratio was unity. In this way we found that in susceptible group women patients under15 and above 65 years were rather than men. In age group under 15 year, MDR tuberculosis, and in above 65 year, XDR have the highest M/F ratio.

**Conclusion:** This study was planned to define drug resistance patterns for monitoring drug resistant TB in Belarus. It is suggested that a close collaboration between academic researchers and TB system workers would be organized for further studies.

**Key words:** Tuberculosis, Multidrug-Resistant's (MDR), Extensively drug-resistant (XDR)

**Presentation:** Poster