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the proportion of culture converters during anti-TB treatment was significantly higher in the European group (28/57, 49.1%, vs. 33/174, 19.0%; P<0.001). HIV co-infection was significantly associated with death, but not culture conversion, in the combined cohort (aOR: 2.37; P:0.008).

Conclusion: Unfavorable outcomes, although common in both settings, are more frequent in a resource-poor setting. These data can inform prevention and treatment strategies for XDR-TB in different settings.

P3317

The incidence of multi drug resistant tuberculosis among patients receiving standardized treatment regimen for suspected MDR-TB

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The LCP-PMDT started the implementation of Standardized treatment regimen for all smear positive Drug Resistant tuberculosis suspects. The appropriateness of these regimens need to be evaluated. This is a Descriptive prospective cohort study, the objective is to determine the Incidence of MDR-TB among patients receiving Standardized Treatment regimen for suspected MDR-TB.

256 patients received standardized treatment regimen,180 patients have available culture and DST results, 76 patients still have pending culture and DST results. Of the 180 patients with available culture and DST results, 113 were confirmed MDR-TB. 55 of 72 (76.3%) patients belonging to the others Non-DOTS multiple treatment group were confirmed MDR-TB compared to 7 (30.3%) patients with Non-DOTS with single treatment. 17 of 18(94%) patients who belonged to category I failure group were confirmed MDR-TB. 5 of 11 (45.5%) patients under Category I RAD, 8 (33.3%) of 24 patients under category I relapse were confirmed MDR-TB. 11 of 20 (55%) patients under category II relapse and 10 (90.1%) of 11 patients under category II failure were confirmed MDR-TB.

Conclusion: MDR-TB occurs more frequently among the standardized regimen B group (category I failure, category II failure, and other Non-DOTS with multiple treatment).

Recommendations: Initiation of standardized regimen for MDR-TB for patients with Category I failure, Category II failure, category II relapse and those with Non-DOTS with multiple treatment while awaiting the results of the DST. Category II treatment regimen, should be used in category I RAD and category I Relapse pending culture and DST results.

P3318

Non-pharmacological factors for the emergence of drug resistance in patients of pulmonary tuberculosis: An Indian overview

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Aim: To evaluate the impact of or non pharmacological factors on the emergence of drug resistant tuberculosis in eastern Uttar Pradesh.

Material and methods: 150 diagnosed cases of drug resistance pulmonary tuberculosis via culture and sensitivity were evaluated of their socio-economic background with special reference to their literacy, annual income, housing, reason of discontinuation of treatment, migration status etc. Data was collected and analysed statistically.

Observation: Prevalence of drug resistance was more in large families(76%), with lower housing area per person(62%), with at least one migration history(75.33%), having at least one member previously sputum positive(65.33%) and lower annual income(66%). Also was more in illiterates(58%). The reason of discontinuation were adverse effect(18%), resolution of basic symptoms/early asymptomatics(40%), advised by unqualified doctors(12%), social stigma(8%), and non affordable private treatment(15.33%).

Table 1. Reason of discontinuation of drugs

Factors	No. and percentage of total patients
No discontinuation	10, 6.66%
Adverse effects	27, 18%
Resolution of basic symptom (early asymptomatics)	60, 40%
Advised by unqualified doctors	18,12%
Fear of related social stigma	12, 8%
Can't afford expenditure of treatment	23, 15.33%

Conclusion: Role of socioeconomic factors can't be denied in emergence of drug resistance. Patient centered approach especially proper counselling may help in this regard.

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371. MDR- and XDR-TB: clinical and public health experiences

P3316

Poor treatment outcomes of XDR-TB patients in resource-limited settings

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Background: According to the last report of the World Health Organization 69, countries have diagnosed at least one case of extensively drug-resistant tuberculosis (XDR-TB). Treatment success rates for XDR-TB have been highly variable. To gain further insight into this issue we compared outcomes in a low (LI) versus middle/high income (MHI) countries.

Objective: To compare XDR-TB-related treatment outcomes (i.e. culture conversion and mortality) in MHI vs. LI countries

Methods: A comparative retrospective evaluation of a European (Estonia and Italy) vs. South-African datasets, which included only culture-confirmed XDR-TB cases, was performed. Covariates, potentially associated to negative or positive treatment outcomes, were partially explored.

Results: A total of 235 XDR-TB patients were enrolled [61 from Europe (70.5%, males) and 174 (51.2% males) from South Africa]. Their mean (standard deviation) age was 47.0 (12.2) and 35.2 (11.2) years, respectively (P<0.001). HIV co-infection was significantly more frequent in the South-African cohort (82/174, 47.1%, vs. 2/58, 3.5%; P<0.001). A higher proportion of deaths was recorded among South-African XDR-TB cases (61/174, 35.1%, vs. 14/61, 23.0%; P:0.08). By contrast,

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The efficacy of a rifabutin-containing regimen for rifabutin-susceptible multidrug-resistant tuberculosis

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Objective: We investigated the efficacy of a rifabutin (RBU)-containing regimen for the treatment of RBU-susceptible multidrug-resistant tuberculosis (MDR-TB).
Methods: From 256 patients diagnosed with MDR-TB at Asan Medical Center in South Korea between January 2006 and December 2010, 39 patients (15.2%) were susceptible to RBU. Of these 39 patients, nine patients who were appropriately treated with a RBU-containing regimen were included. Twenty-seven MDR-TB patients who were resistant to RBU, were selected as a control group, and the outcomes of both groups were retrospectively compared.
Results: In the nine patients with RBU-susceptible MDR-TB, their mean age was 43.7 years and the proportion of extensively drug-resistant TB (XDR-TB) was 44.4% (4/9). Baseline characteristics and the drug resistance pattern (except RBU) did not differ between the two groups. Treatment success was achieved in all nine patients in the RBU group: cure in six (66.7%) and treatment completion in three (33.3%). On the other hand, the treatment success rate was 48.1% (13/27) and treatment failed in 14 (51.9%) of the 27 patients in the control group ($p = 0.012$).
Conclusions: RBU seems to be useful in the treatment of MDR-TB in patients who are susceptible to RBU.

P3320

Treatment outcomes of MDR-TB cases registered in Bucharest sector 4 during 2004-2008

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Introduction: Although the TB incidence rate declined significantly in Romania in the last decade, from 142.2%ooo in 2002 to 90.2%ooo in 2010, the MDR-TB remains at a rate of attention (2.9% in new and 10.9% in retreated cases).
Objective: To analyze the treatment outcomes of MDR-TB cases registered in the TB Dispensary of Bucharest Sector 4, in order to optimize the TB control in its territory.
Material and methods: We conducted an observational retrospective study of 78 MDR-TB cases registered in Bucharest Sector 4 since December 2004-December 2008. Data have been collected from the TB register of the dispensary, TB information system, treatment records and epidemiological surveys.
Results: Out of 78 patients 35 have been included in the DOTS Plus project financed by the Global Fund (GLC group) and 43 have been treated from NTP resources (NTP group). Chronic patients represented 11.5% in GLC group and 30.3% in NTP group. By treatment history, 20% from GLC group and 46.5% from NTP group have been treated with second line antiTB drugs in the past. Overall success rate was 3 times higher in the GLC group (82.8%) than in the other (27.9%).New cases had a success rate of 95% in the GLC and only 66.6% in the NTP group. The relapses had a success rate of 72.7% in the GLC compared to 36.8% in the NTP group. The cases with second line medication in them histories have a success rate of 57.1% in the GLC and just 5% in the NTP group.
Conclusion: The favorable outcome of MDR-TB patients in DOTS Plus project demonstrates the real benefit brought by this project and its extension to all MDR-TB patients in the country should be required.

P3321

Treatment outcome of multi drug resistant tuberculosis patients in modified DOTS-PLUS: A new strategy

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Background: Multi Drug Resistant Tuberculosis is a global problem and growing threat to human health with notoriously difficult and challenging treatment.
Aims and objective: To study the treatment outcome with second line drugs in patients of MDR-TB in modified DOTS-PLUS strategy.
Methods: A prospective cohort study analyzing 98 consecutive patients with MDR-TB attending the Dept of Pulmonary Medicine, CSMMU, between June 2009 to Feb 2010 with follow-up till February 2012. All the patients were given medications free of cost as per DOTS PLUS Protocol of Revised National Tuberculosis Control Programme (RNTCP). Treatment included monthly follow up, adherence check up, radiological and bacteriological assessment (sputum smear advised monthly till conversion then quarterly; culture for MTB at 0,4,6,12,18,24 months),intense health education and monitoring of adverse effects. Patients outcome considered as cure when atleast 2 of the last 3 cultures were negative and as failure when the same were positive.
Results: All the patients had resistance to at least Isoniazid and Rifampicin with mean no. of 3.02 drugs and were seronegative for HIV. Default rate and

expiry rate at the completion of 24 months of treatment were observed to be 7(7.1%) and 10(10.2%) respectively. Mean smear and culture conversion time were 3.4±2.1 months (1-11) and 4.6±2.5 months (4-12) respectively. Sputum smear and culture conversion rate were 75/81(92.5%) and 71/81(87.7%) respectively with only 10(10.2%) patients remained culture positive. Significant side effects were experienced in only 17.4% patients.
Conclusions: Modified DOTS-PLUS strategy can be model for treatment of MDR-TB in private sector.

P3322

Failures in treatment of patients according DOTS-PLUS program: Medico-social predictors

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The problem of treatment patients who suffering from multi drug resistance tuberculosis of lungs (MDR TB) is one of actual problems of phthisiology now. Efficiency of treatment of this group patients according the program DOTS-PLUS fluctuates in a range 61%-77%, and failure in treatment is registered in 3%-14% of cases in different countries. The purpose of our research is revealing predictors of failure in treatment of the patients suffering MDR TB.
200 MDR TB patients who were treated under program DOTS-PLUS in the Tomsk region (from 2000 to 2008) have been included in case-control study. Patients with failure in treatment (n=100) were in the main group, and patients (n=100) who were cured were in the comparison group.
The age of patients varied from 16 till 75 years. The deficiency of body weight (IWB =15.99 and less) has brought the contribution to formation failures in treatment (OR 11.0). Revealing cavernous tuberculosis at the initial stage increased risk of failure more than in 5 times (OR 5.69). The complications increasing risk of failure in treatment were respiratory insufficiency (OR 3.25), anemia (OR 13.78) and hemoptysis (OR 3.80). For therapy failure following accompanying diseases had prognostic value: pathology of urinary system (OR 6.62), chronic not obstructive bronchitis (OR 2.43), pathology of gastrointestinal tract (OR 2.32) and alcoholism (OR 3.52).
Thus development of MDR TB and efficiency of its treatment depends from both social, and medical factors which are necessary to consider at the initial stage of treatment and to apply measures for their minimization.

P3323

Success of the patient-oriented approach to MDR-TB treatment in Tomsk Oblast, Russia, 2000-2009

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In 2000-2009, 1141 MDR TB patients were treated in Tomsk Oblast (civilian sector). MDR-TB treatment effectiveness: 63.1% - cured, 12.6% - failed, 8.3% - died, 15.9 - defaulted. Since 2005, a patient-oriented approach has been developed (daily food packages for patients' motivation, treatment at home, Red Cross volunteers, anti-alcohol campaign, searching for patients who miss treatment using social and psychological support - "Sputnik" program etc.). This approach resulted in default decrease from 29.3% (2003) to 10.4% (2009). MDR-TB reservoir decreased from 823 patients (2002) to 380 (2011), including 291 patients who are still on treatment. From 2004 to 2011: TB incidence among new cases (per 100 000) decreased from 105.6 to 75.3 (by 28.6%), TB prevalence - from 205.2 to 104.9 (by 48.9%), TB mortality - from 17.7 to 5.8 (by 67.2%). "Sputnik" (smear negative, without lung distruction) among new cases increased from 25% (2005) to 40% (2011).
Conclusions: The patient-oriented approach significantly improved TB situation in Tomsk Oblast. We are concerned that patients with "Sputnik" who are not provided with in-depth examination might be admitted to general health care settings and treated for pneumonia using fluoroquinolones.

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Long term treatment outcome in multi drug resistant tuberculosis

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Background: Multi Drug Resistant tuberculosis (MDR-TB) is an increasing worldwide problem which is difficult to treat and has greater risk of relapse.
Aims and objective: To analyze long term treatment outcome with second line drugs in patients with MDR-TB.

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Methods: A descriptive analyses of 93 consecutive patients with MDR-TB attending the Dept of Pulmonary Medicine, CSMMU, between June 1998 to February 2008 with follow-up till December 2010. All patients were admitted for average duration of 70 days and received a regimen chosen from Kanamycin, PAS, Ethionamide, Cycloserine, Flouroquinolone, Isoniazid, Ethambutol and Pyrazinamide. Patients outcome was considered as cure when atleast two of the last three (At 12, 18 & 24 m) cultures were negative and as failure when the same were positive.

Results: All the patients had resistance to at least Isoniazid and Rifampicin with mean no. of 3.38 drugs. Average duration of pretreatment chemotherapy was 34.5 (10-62) months. Out of 93 patients enrolled, 75 completed the treatment as planned, 5 patients died during treatment, and 13 patients abandoned it or lost to follow up. Considering the best scenario cure rate was 93.33% (70/75) and in worst scenario cure rate was 75.27% (70/93). Out of 75 cured, 68 came for follow-up for mean duration of 53.3 (10-98) months.Relapse rate was 9.33%(7/75). Significant side effects were experienced in 13 (13.98%) patients.

Conclusions: In MDR-TB patients, regimen consisting of Ethionamide, PAS, fluoroquinolone and Cycloserine with injection Kanamycin in initial 4-8 months appears to be safe and effective. MDR TB can be cured successfully with appropriate combination chemotherapy for an adequate duration requiring a strategic approach.

P3325
Peculiarities and results of treatment in XDR pulmonary tuberculosis (PTB)

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Objectives: There is no a single approach to the treatment of XDR PTB so the results of treatment are still unsatisfactory. The aims of the study are to examine its features and find optimal way of the treatment.

Materials and methods: Between 2004 and 2011, 58 patients completed the treatment. Average age was 30,6 years. Close contact with PTB was in 30 (51,7%). All the patients were with failure of previous treatment. There has been resistance to at least H,R,Fq and one of injectional second-line drugs. Initially MDR was in 17 patients, XDR in 8 (all from household death contact!). Amplification of drug resistance to XDR has been formed over three years. All patients received individualized therapy based on DST for at least 2 years. Later–generation fluoroquinolones – Lfx or Mfx. When resistance to Km we used Cm. Of oral bacteriostatic 2nd –line Pto, Cs, PAS. Of drug group 5 - Amx/Clv, Clr. Artificial pneumothorax and pneumoperitoneum was applied in 26 patients, surgery was performed in16.

Results: Sputum culture conversion was achieved in 37 (63,7%) patients including those subjected to collapse therapy and/or surgery. Late results were followed in 50 cases. Culture remains negative in 32 (64%) of patients including 22 of 26 after collapse therapy and 14 of 16 after surgery. That was confirmed by multiple sputum culture examination in terms of more than a year.

Conclusion: The development of XDR PTB resulted from close household contact, low adherence and lack of proper initial treatment. Application of collapse therapy and surgery along with individualized therapy can improve the outcome.

P3326
Evaluation of characteristics and treatment results of patients treated as multidrug resistant tuberculosis

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Multi-drug resistant tuberculosis (MDR-TB) is a disease that's treatment is more difficult, more therapeutic efficacy and toxicity of drugs used than drug-sensitive TB. Cure rates are very different in the treatment of MDR-TB. In this study, features and treatment outcomes of MDR-TB patients followed in two clinics of our hospital were reported.

Among 79 MDR-TB patients, 58 (%73.4) were male, 21 (%26.6) were female; the mean age was 36.24±13.75 (17-70) and all were HIV(-). 64 patient's treatment were completed and 15 patients are still under treatment. In 27 cases (34.2%) had tuberculosis contact and 7 cases (9%) had a family history of MDR-TB. 25 (31.6%) cases had comorbid disease. 35 patients (44.3%) were evaluated as primary and 44 (55.7%) were evaluated as secondary MDR-TB. The average day of hospitalization was 162.76 (30-436). Radiologically, 11 (14%) cases had common, 68 (86%) patients had limited disease. A mean number of 5.18±0.5 (5-7) second line drugs were administered, adverse effects of drugs were identified in 36 (%45.5) patients. Sputum and culture conversion were provided at mean 1.8±1.3and 1.9±1.03 months in patients completed treatment, respectively. Of the patients completed treatment, %84.4 (n=54) were classified as cured, %7.8 (n=5) were defaulters and %7.8 (n=5) died during treatment. Surgical resection was applied in 2 patients. Treatment of 14 patients is still going on and sputum conversions were provided mean 1.6. months.

Conclusion: At the end of the study, very high cure rate found in MDR-TB cases young and had limited disease radiologically.

P3327
Use of linezolid in complex MDR-TB cases

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Introduction: The control of tuberculosis is facing challenges with the development of drug resistance as more drugs are used. Complex MDR-TB has recently emerged as a global public health issue. In Taiwan, there are around 600-800 MDR-TB cases with 1.0% new TB cases, 6.2% retreatment cases and 10.0% XDR-TB. Treating MDR-TB has become much more difficult, a new treatment regimen is mandatory.

Aims: Our aim is to investigate the use of linezolid in treating complex MDR-TB.

Methods: For subjects with persistent positive sputa after a prolonged use of 2nd line drugs or resistance to more than 7 medications, linezolid was utilized. Clinical, epidemiological and microbiological characteristics of all subjects were collected. Drug tolerance, side effects and treatment outcomes of linezolid were also recorded.

Results: Nine MDR-TB patients (6 men and 3 women with a median age of 47 years) received linezolid. The *M. tuberculosis* strains were resistant to a median of 7 drugs. Culture conversion occurred in 5 cases at a median of 21 days. Six out of 9 (69%) cases had side effects including mild to moderate-severe anemia, thrombocytopenia, optic neuropathy, and peripheral neuropathy. Most side effects resolved after linezolid was reduced or ceased. Linezolid was tolerated well by most patients. However, one patient stopped due to severe side effects and one died from non-TB caused co-morbidity.

Conclusions: Treatment for complex MDR-TB is complicated and time-consuming, linezoid has appeared to be a potential drug with a high sputum conversion rate and good tolerance. However, further study is required to determine the effect of linezolid in MDR-TB since the present study is limited by its small size.

P3328
Treatment outcome and factors associated with unfavourable treatment results in cases with multidrug-resistant tuberculosis in Bulgaria for the period 2009-2010

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A retrospective study of all patients with MDR-TB in Bulgaria who started treatment for the period September 2009-March 2010 was performed.

Aim: To make treatment outcome analysis and to determine the factors associated with unfavourable treatment results in cases with MDR-TB.

Materials and methods: Medical records, recording and reporting forms for the MDR-TB cases included in treatment and TB registries of the NRL-TB were examined.

Results: A total of 50 MDR-TB patients with mean age 45.8 years started treatment during the period. The male to female ratio was 2.3:1. Nineteen patients (38%) were new, and the other 31 cases were previously treated: 12 relapses (24%), after failure – 8 (16%), after default – 10 (20%). The median duration of recorded disease before treatment was 3.1 years (range, 0-13). None of all the patients tested for HIV had a positive result. Eight cases were found with XDR-TB during the treatment: 4 in 2010, and 4 – in 2011. Treatment was given for 18-24 months, including at least 12 months after culture conversion. Twenty four months after beginning of treatment, 24 patients (48%) were cured, 19 patients (38%) died, and one patient (2%) interrupted treatment. The cases with XDR-TB had higher mortality rate than the other MDR-TB cases (75% vs. 30.9%).

Conclusion: This study shows high mortality rate in MDR-TB cases during two years after treatment initiation. XDR-TB is the strongest predictor of poor treatment outcomes. Previous TB treatment, weight loss and positive smears for acid-fast bacilli at the start of treatment are the other important factors associated with unfavourable treatment results.

P3329
The individual-tailored treatment regimens for multidrug-resistant tuberculosis

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Background: MDR-TB treatment based, in common case, on K/Cap, Ofl/Lev, Pt, Cs, PAS and, depend on the drug-resistance pattern (DRP), E and/or Z. But the adequate chemotherapy regimen (min 3-4 drugs) is often impossible due to the DRP and/or drugs intolerance.

Aims: To evaluate the effectiveness and safety of the individual-tailored regimens (ITR) for new and re-treatment TB patients, based on total both express and liquid and solid media DST and accessibility to TB drugs of the all lines (the present Moscow TB Control Center setting).

Methods: The prospective unblinded non-randomized one-centered study includes 66 pulmonary TB patients, 18-71 y.o., 40 male and 26 female. MDR-TB in 38 pts (14 new and 24 re-treatment), XDR-TB in 28 (4 and 24). The ITR included in all cases first/second-line TB drugs (accordingly DRP and drug tolerance) and linezolid (Lz), in 42 pts moxifloxacin (Mox) was used and azithromycin (Az)/clarithromycin (Cl), meropenem (Mrn)/imipenem + cilastatin must be added.
Results: The sputum smear conversion for MDR-TB pts - 97,4% (37/38, 36 - at the end of the 8th week) and for XDR-TB - 82,1% (23/28, 20 - at the end of the 16th week). The severe side-effects, attributed to Lz, were obtained in 5 pts (7,6%): peroneal neuropathy (3 pts, Lz excluded in 1), obstinate vomiting (1 pts, Lz excluded) and anemia (2 pts, Lz continued). The severe tachycardia, attributed to Az, were obtained in 1 pts (Az excluded).
Conclusion: The regimens, based on second-line TB-drugs (include Mox) and drugs from the WHOs "fifth group" are well-tolerated and high effective in MDR- and XDR-TB, but require the timely drug susceptibility testing and the full set of the expensive drugs.

P3330
Study of isoniazid-resistant tuberculosis including outcomes in a high prevalence area in London
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Background: Isoniazid resistance is the most common form of mono drug resistance in tuberculosis (TB). There has been an outbreak of isoniazid-resistant TB in North London. An outbreak committee has made recommendations[1].
Aim: To study isoniazid resistant TB patients attending Newham community chest clinic.
Methods: The notes of 31 isoniazid-resistant TB patients treated between 2004 to 2009 were studied. The reference laboratory gave confirmation of resistance.
Results: The age range was 17 to 73 (median 32). Male: female - 2.1:1. 7(23%) patients had the North London outbreak strain. Of the 31 patients, 20(65%) had pulmonary involvement, 11(35%) had extensive disease and 8(26%) were sputum smear positive. The extra-pulmonary presentations were lymphadenopathy, abscesses and miliary TB. 10(32%) patients had risk factors for resistance - HIV, previous TB, alcohol, drug abuse and being in prison. 14(45%) patients with risk factors for non-adherence were given directly observed therapy. 17(55%) had treatment supervised weekly by community pharmacists. Patients received a 12month regime containing rifampicin, pyrazinamide and ethambutol, or a 9-month regime that also included moxifloxacin. 7 (23%) patients had drug adverse effects. 30(97%) patients completed treatment successfully.
Conclusion: The majority of our patients were not associated with the outbreak. Treatment completion rates were satisfactory, and exceeded the target (90%) set by the TB outbreak control committee. There was no difference in treatment completion rates between the two regimes.
Reference:
[1] Maguire H, Forrester S, Adam S. Progress report and updated recommendations of the London Outbreak Control Committee May 2006.

P3331
Drug resistance trends and patterns of mycobacterium tuberculosis isolates from pulmonary tuberculosis patients at a tertiary care hospital in Turkey
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Objective: To determine the proportions and patterns of resistance to commonly used tuberculosis (TB) drugs (isoniazid [INH], rifampicin [R], ethambutol [E] and streptomycin[S]) among pulmonary TB patients and assess potential risk factors for drug resistance.
Methodology: Strains were collected from 1584 sputum smear negative or positive pulmonary TB patients with culture positive in tertiary care hospital of Turkey. Specimens were cultured in liquid and solid media, and drug susceptibility tests were performed for first-line drugs including isoniazid, rifampin, streptomycin, ethambutol and pyrazinamide.
Results: Drug susceptibility testing (DST) has been obtained from all samples 442 (27.9%) of 1584 isolates were resistant to at least one of five antibiotics tested. 300 (18.9%) isolates were resistant to isoniazid; 168 (10.6%) to streptomycin; 137 (8.6%) to ethambutol; 220 (13.9%) to rifampin. 146 isolates (9.2%) were multidrug resistant, Results also showed 49% of patients were below the age of 40 years.
Conclusion: Regardless of previous treatment history, the high resistance observed in isoniazid, which is a first-line drug. Treating culture-positive TB patients based on DOTS together with strengthened control programs should therefore be considered in the management of TB patients.

P3332
How big is the problem with MDR-TB cases in Macedonia?
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Background: Multi-drug resistance tuberculosis (MDR-TB) is one of the most challenging problems in the National Strategy for control tuberculosis in Macedonia. The aim of this study was to present all patients with MDR-TB who were registered in the National MDR-TB Register in Macedonia from 2001 till 2011.
Material: 32 patients who were treated with individualized therapeutic regimes were enrolled in the study. Patients follow-up ended when an outcome was recorded or, in December 2011 for those still on treatment.
Results: 29 patients were with bacteriological confirmation, and 3 cases were suspected for MDR-TB. MDR-TB cases participate with 0,5-4,6% in the total resistant strain obtained from positive culture during the last six year. 30 patients (93, 75%) had acquired resistance and only 2 patients (6, 25%) had primary MDR resistance. Time to culture conversion was two months or less in the most of patients. The results of treatment outcome are: 9 patients were cured (28, 12%), 13 patients (40, 62%) died, 5 patients interrupted the treatment (15,62%) and 5 patients (15,62%) are still on treatment. No one patient had XDR-TB initially, but only one cases emerged XDR-TB during the treatment.
Conclusion: To improve management and treatment results of MDR-TB patients in Macedonia, we need more efforts in providing necessary medications, clinical conditions and treatment under direct control.

P3333
Comparison of moxifloxacin and ofloxacin in treatment of multidrug resistant pulmonary tuberculosis
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Multidrug resistant tuberculosis (MDR-TB) is defined as pulmonary tuberculosis caused by isoniazid and rifampicin resistant. Fluoroquinolones must be involved in standart treatment regimen of MDR-TB. Effect of old and the new generation fluoroquinolones are compared on sputum conversion to treat MDR-TB.
63 MDR-TB patients included. Patients were divided into two groups according to usage of ofloxacin and moxifloxacin. 26 patients used moxifloxacin and 37 patients used ofloxacin. Mean age was 32.7±12.3 in moxifloxacin group and was 38.1±14.9 in ofloxacin group. Gender distribution(F/M) in moxifloxacin and ofloxacin group was 2/24, 14/23, respectively. All patients were HIV negative. Sputum conversion, culture conversion and treatment period were compared between two groups.

Table 1. Comparison of sputum conversion, culture conversion and treatment time with use of Moxifloksacin and Ofloxacin

	Moxifloxacin group (mean ± SD)	Ofloxasin group (mean ±SD)	p
Sputum conversion	1.81±1.58	1.78±1.08	0.276
Culture conversion	1.96±1.31	1.81±0.81	0.857
Treatment time	21.12±7.05	21.68±5.43	0.545

Mann-Whitney U test 95% confidence interval.

There was no significant difference in sputum and culture conversion and treatment time between two group (p>0,05).
Conclusion: In spite of the declared information that moxifloxacin is more efficient than ofloxacin in treatment of MDR-TB; in this study there was no significant difference in sputum conversion, culture conversion and treatment time. Although patient number is not a lot, this result can make us think that economic reasons are important when selecting the qouinolone group for the treatment.