217. Socio-economic impact of tuberculosis

P2500 LATE-BREAKING ABSTRACT
Cross-spot technology to quickly identify tuberculosis pleurisy
Aik Bossink1, Steven Thijsen2, 1Pulmonology and Tuberculosis, Diakonessenhuis, Utrecht, Netherlands; 2Division of Pulmonology, Internal Medicine, Diakonessenhuis, Utrecht, Netherlands

Background: Today, the elispot technique (T-Spot.TB) is used to identify subjects with both latent and active tuberculosis. However, differentiation between active and latent tuberculosis is not possible. Elispot is now also used on mononuclear cells obtained from pleural effusion and central nervous system fluid. However, a positive test result is no proof of active disease yet. Here we describe a novel technique to identify active disease.

In the Cross-Spot method, the cell-free supernatant of body fluids is incubated with cells of a donor known to be positive for a certain condition/disease. If the cell-free supernatant contains antigens specific for a condition or disease, the cells of the donor will be stimulated and an immune effector response can be measured. In this experiment, we used cells of a donor known to be positive for latent tuberculosis.

Methods: In patients with culture-confirmed tuberculosis pleural effusion, 20 mL of pleural fluid was collected. The fluid was centrifuged and the supernatant was incubated with mononuclear cells from a known tuberculosis-positive donor. After overnight incubation, the results were read using Elispot technique. Simultaneously, M. tuberculosis specific PCR was performed on the supernatant.

Results: 4 out of 7 patients (57%) with culture-confirmed tuberculosis pleurisy tested positive with Cross-Spot. PCR results were negative in these 4 subjects. The 3 patients with a negative Cross-Spot result tested positive (43%) with PCR.

Conclusion: Combining the two tests, Cross-Spot and PCR, resulted in a 100% sensitivity for the detection of active pleural tuberculosis. The results also suggest different stages in the presentation of tuberculosis antigens in pleural tuberculosis.

P2501 LATE-BREAKING ABSTRACT
The association of vitamin D deficiency and clinical manifestations of tuberculosis infection in South Korea
Jusang Kim1, Joong Hyun Ahn2, Chi Hong Kim3, Yong Hyun Kim4, Hwa Sik Moon5, Jin Woo Kim6, 1Division of Pulmonology, Internal Medicine, The Catholic University of Korea, Incheon St. Mary's Hospital, Incheon, Republic of Korea; 2Division of Pulmonology, Internal Medicine, The Catholic University of Korea, St. Vincent's Hospital, Suwon, Gyeonggido, Republic of Korea; 3Division of Pulmonology, Internal Medicine, The Catholic University of Korea, Holy Family Hospital, Bucheon, Gyeonggido, Republic of Korea; 4Division of Pulmonology, Internal Medicine, The Catholic University of Korea, St. Paul's Hospital, Seoul, Republic of Korea; 5Division of Pulmonology, Internal Medicine, The Catholic University of Korea, Uijeongbu St. Mary's Hospital, Uijeongbu, Gyeonggido, Republic of Korea; 6Division of Pulmonology, Internal Medicine, The Catholic University of Korea, Uijeongbu St. Mary's Hospital, Uijeongbu, Gyeonggido, Republic of Korea.

Introduction: The aim of study is to find the relationship of serum vitamin D3 level in infected patient with tuberculosis (TB) in Korea and susceptibility to tuberculosis.

Method: Serum 25(OH)vitD3 concentration was measured in 117 patients before treatment in patients with active TB and 42 healthy controls one time. The prevalence of VDD and VDI was observed in two groups. We observed whether serum 25(OH)vitD3 concentration is related to extrapulmonary TB (ExPTB), cavity, the extent of lung involvement, AFB positive results or not.

Result: The mean serum 25(OH)vitD3 concentration was 47.5ng/ml (SD±13.7). There was no vitamin D3 deficiency (VDD) and the prevalence of vitamin D3 insufficiency (VDI) was 21.5%(147 person) in healthy group. The mean serum 25(OH)vitD3 concentration was 34.02ng/ml (SD±21.1). The prevalence of VDD was 24.7%(9/117 person), the prevalence of VDI was 23.9%(28/117 person) in TB group. Subnormal Vitamin D3 concentration in infected patient with TB is risk factor for progression to ExPTB (odds=2.2 CI: 1.2-3.8 P<0.04). But, although 25(OH)vitD3 concentration is below normal range in infected patient with TB, there is no association of VDD and clinical manifestations of TB infection in Korea - frequency of cavitation (odds=1.7 CI: 0.9-3.3), bilateral involvement (odds=1.0 CI: 0.7-1.4).

Conclusion: Considering the fact that the mean 25(OH)vitD3 concentration in TB group is lower than in healthy group, low serum 25(OH)vitD3 concentration could be one cause of susceptibility to TB. Among TB group, more lower serum 25(OH)vitD3 concentration in ExPTB group than in PTB may play a role to progress to ExPTB manifestation.

P2502
TB and socio-economic deprivation
Aravind Ponnapasamy, Matthew Shaw, P.D.O. Davies. TB Research and Resource Unit, Liverpool Heart and Chest Hospital, Liverpool, United Kingdom

Introduction: Socio economic deprivation has been long associated with TB and correlates well with previous indices of deprivation like Townsend, Jarman, and Carstairs indices of deprivation measured at ward level. To quantify deprivation more accurately, the Index of multiple deprivation (IMD) was published on the basis of a collection of post codes called lower super output areas (LSOA). Liverpool is one of the most deprived cities in the UK. We aimed to examine if deprivation scores correlated with previous deprivation scores.

Materials and methods: Anonymized data of TB cases from our database was extracted and the patient post codes correlated to IMD scores. The data was then grouped as per LSOA and their deprivation indices calculated. Eight groups based on deprivation scores were formed and number of cases and ethnic information was collected for each group. Group 1 was most affluent and group eight was most deprived.

Results: Between 2000-2008, 432 cases of TB (57% males) were treated. The total IMD scores ranged from 8.40 to 82.16. The proportion of White British cases was 37%, the Asians 24% and the black Africans formed 32% of the cases. We found a correlation (r = 0.821) between the number of cases and increasing deprivation. A similar correlation existed for the White British (r= 0.7709) group and black African group (r = 0.806) but not the Asian group (r=0.063).

Conclusions: We conclude that TB continues to be a disease very strongly associated with deprivation with the exception of the Asian population.

P2503
Impact of clinical and socio-economic factors on tuberculosis transmission rate in European cities: meta-analysis of molecular epidemiological studies
Stefania Greco1, Monica Sani Schepisi2, Claudio Angelelli2, Renata Mancini2, Enrico Girardi2, 1Dipartimento di Malattie Polmonari, Azienda Ospedaliera San Camillo-Forlanini, Roma, Italy; 2Dipartimento di Epidemiologia, Istituto Nazionale per le Malattie Infettive L. Spallanzani, Roma, Italy.

Mycobacterium tuberculosis (MTB) genotyping provides information on relative impact of TB transmission and reactivation within a community as well as on transmission-related factors. We meta-analysed population-based studies examining risk factors of clustering (a marker of recent transmission) in the European Union (EU). As TB spread dynamics depend on epidemiological context, we included only studies set in EU urban areas.

Two investigators searched in OVID multi-database English-language articles up to January 2009. After screening 4500 citations and obtaining data from 1445 Authors contacted, 21 studies set in 20 EU cities between 1998 and 2008 were included. Overall, they examined 13,088 TB patients (median 272, range 83-4238) during 894 months (median 36, range 6-126), mostly using IS6110-based typing (19/21 articles). Median rate of TB clustering was 37% (range 15-59). Relative proportion of transmitted and reactivated cases was analysed per each risk group.
by pooled odds ratios (OR, random effect model). New infections were more common among males (OR 1.29, confidence interval [CI] 1.15-1.44), homeless people (OR 1.9, CI 1.32-2.73), prisoners (OR 1.65, CI 0.28-2.62), alcohol abusers (OR 1.49, CI 0.41-5.09), and patients with extrapulmonary TB (OR 1.62, CI 1.39-1.88), while reactivations were more common among foreigners (OR 0.51, CI 0.41-0.64). Multivariate meta-regression was unable to identify independent host-specific risk factors for TB, probably due to limited study power. Identifying social networks involved in disease spread can help to inform and strengthen TB control interventions in the EU.

P2504
Particular aspects of TB endemia in a district of Romania in 1998-2007
Mihaiela Cristoloiu, Mihaela Raduta, Arianna Nicolaeta, Ambulatory, Clinical Hospital of Pneumatology, Cluj Napoca, Cluj, Romania

The serious endemia of TB in Romania claim the adoption of DOTS strategy of WHO. 1998 was the year when this strategy was implemented in our country. In the present study we made an analysis of the main epidemiological indicators of WHO. 1998 was the year when this strategy was implemented in our country. In particular aspects of TB endemia in a district of Romania in 1998-2007. The incidence of notified cases, after DOTS implementation, declined in 1999; 3,2%000 in 2000; 3%000 in 2001; 1,8%000 in 2002; 1,5%000 in 2003; 49,4%000 in 2007. The percent of TB cases bacteriological confirmed was low in 1999- 92%000; in 2000 -100%000; in 2001 – 82,9%000; in 2002 -79%000; in 2003 -66,4%000; in 2004-57%000. In 2005- 52%000; in 2006- 50.5%000; and 49,4%000 in 2007. The percent of TB cases bacteriological confirmed was low in the first years: in 1998 -50,8%; in 1999 – 41,8%; 35,7% in 2002, but increase to 74% in 2006 and 67% in 2007. The TB mortality was 7,9%000 in 1998; 4,8%000 in 1999; 3,2%000 in 2000; 3%000 in 2001; 1,8%000 in 2002; 1,8%000 in 2003; 1,1%000 in 2004; 2,5%000 in 2005 in 2006 and 1,2%000 in 2007.

The assessment of TB treatment efficacy shows for the new cases a success treatment rate of 77% in 1999; 78% in 2000; 80% in 2001; 78% in 2002; 83% in 2003; 84% in 2004; 85% in 2005; 84% in 2006 and 88,2% in 2007.

Conclusion: The incidence of notified cases, after DOTS implementation, declined after approximate 5 years and the trend is maintain. The decline of mortality rate and the higher success rate of treatment every year demonstrate the effectiveness of TB treatment following this strategy.

P2505
Involving community partners in the management of tuberculosis among drug users
Raquel Duarte1, Alina Santos 2, Margarida Mota 3, Aurora Carvalho 1, Maria Simon2, Daniela Honorodolean1, 1Pneumology, University of Medicine and Pharmacy, Cluj-Napoca, Romania; 2Pneumology, University of Medicine and Pharmacy, Cluj-Napoca, Romania; 3Occupational Medicine, University of Medicine and Pharmacy, Cluj-Napoca, Romania

Since 2003, the incidence of tuberculosis had a slightly decreasing trend in our country. The aim of this retrospective study was to assess the dynamics of the clinical and epidemiological features of pulmonary tuberculosis (TB) in Cluj County over a decade. The study compared 2 groups, each with 100 patients, diagnosed between 1994-1997 (group 1) and between 2004-2007 (group 2). All medical records were analyzed. The disease had mostly affected: males (75%-group 1, 72%-group 2), active people, aged between 41-50 years (28%-group 1, 37%-group 2), living in urban areas (41%-group 1, 63%-group 2). Most patients were smokers (67% vs 64%), especially males (61% vs. 50%). Alcohol consumption increased over time: 60%-group 1, 71% of all the patients from group 2. The fibrocortical cavity type was predominant (63%-group 1, 75%-group 2). Followed by the infiltrative lesions (22%).

Findings: TB infection (LTBI) rates, treatment success, compliance and abandonment before treatment were similar between groups. New infections were more common among males (OR 2.19, CI 1.32-3.60) and patients with extrapulmonary TB (OR 2.2, CI 1.32-3.62) and HIV (OR 1.62, CI 1.39-1.88), while reactivations were more common among foreigners (OR 0.51, CI 0.41-0.64). Multivariate meta-regression was unable to identify independent host-specific risk factors for TB, probably due to limited study power. Identifying social networks involved in disease spread can help to inform and strengthen TB control interventions in the EU.

P2507
Tuberculosis is there anything different over a decade?
 Roxandia Rajneovana1, Carmen Pop1, Armand Rajneovana1, Milena Man1, Maria Simon2, Daniela Honorodolean1, 1Pneumology, University of Medicine and Pharmacy, Cluj-Napoca, Romania; 2Pneumology, University of Medicine and Pharmacy, Cluj-Napoca, Romania

The aim of the present study was to evaluate the influence of migrants on formation...
of epidemiological situation of tuberculosis (TB) in a large district of St.-Petersburg (Russian Federation).

All the persons who addressed the Anti tubercular dispensary during 2008 were examined, examination included chest radiography and sputum examination. The causes for examination were symptoms of tuberculosis or casual radiological findings. A total of 418 persons were examined, of which 112 were migrants (26.8%).

Active tuberculosis was diagnosed in 119 person, 39 (33%) of which were migrants. Of the migrants, 21 persons (54%) were Russian citizens currently living in other regions of Russian Federation, and 18 (46%) were foreigners. Of foreigners citizens of southern republics of the CIS, former USSR, prevailed. Of all the patients, sputum-positive pulmonary TB was in 56 person, 21 (37.5%) of which were migrants.

In conclusion, the proportion of migrants among TB patients is significant. A proactive approach is needed to screen this category.

P2510

Accounting cost of TB inpatients in Iran, 2005 (in Masih Daneshvari hospital)

Hossein Zare1, Mojgan Azadi 2.

Research Deputy, Social Security Research Institute, Tehran, Islamic Republic of Iran; 2Research, National Institute for Tuberculosis & Lung Shuild be he shehuni, Teheran, Islamic Republic of Iran

Objectives: Accounting cost of TB in base of Sex, Age and Dia nosis.

- Distribution of Health Care Expenditure in TB
- Providing Strategies for Decreasing OOP in Patients with TB

Method: This cross sectional retrospective experimental study calculated hospital costs and analyzed the data in forms and tables designed especially for this purpose. Also data in regard to capital, current and overhead costs were collected. After calculation, the mean of total costs was assessed. In this Study 266 patients with TB from 2004 till 2005 have been follow in masih daneshvari Hospital.

Results: Total Cost: In base of finding this study, 132 of Patients were male and 134 were female. The average cost of each TB direct cost of inpatients in Males was 5185 and in female was 5605. From 266 patients 109 P infected by TB and average cost was 4782, 42 P infected to TB and Other disease and average of cost was 6285, 14P infected to MDR and average of cost was 850, 67P infected to the other disease with 548 average of cost.

Distribution of cost: Near 96.5% of Expenditure are for Hoteling (36%), Drugs (21.5%), physician (12.4%), laboratory (14%), C.T. Scan (6.3%),Radiology (1.9%), Consumable Material and tools (4.3%) and approximately 4.5% is for the other part of expenditures.

Conclusions: In base of Modeling Cost of Expenditure in TB we can find that if it is related to Sex, Age, Kind of TB, Insurance coverage. If we consider mean of annually Income in Households near 8000 $ (PPP) in 2008 the Expenditure of TB can be introduced Catastrophic Payment for any families. We need to determining Suitable Health Insurance coverage for families with TB especially MDR.

P2511

Illness perception in tuberculosis (TB) patients by implementation of the brief illness perception questionnaire (BIPQ) – a multi-centre study

Draga Pesic1, Bogdana Bursuc2, Milica Balajic, Ivan Solovcic3, Sonokhabam Bhagyabati1, Maria Zlates-Ionescu4, Raquel Duarte5, Adriana Sorete Arbore9, Maria Zlatev-Ionescu6, Raquel Duarte7, Irina Strambu8, Adriana Sorete Arbore9, Govind Narayan Srivastava10, Baranas Hindu University, Varanasi, India

Aim: To investigate a group of pulmonary TB patients in terms of their perception of the illness in the correlation with demographic features and TBscore.

Design: An observational multi-centre questionnaire based study. The questionnaire contained a self-created part with TBscore table and the BIPQ. The total of 61 patients was enrolled by mid February 2009. Each item of the BIPQ assessed one dimension of illness perceptions like the consequences, timeline, personal control, treatment control, identity, coherence, emotional representation and concern. We used original instructions to score, and SPSS for Windows Version 16.0 to perform the analysis.

Results: The group of 57 patients with valid questionnaires (the average age 44.29±13.41 years) consisted of 74.3% males; 88.6% were smokers when active TB was not detected; 34% would not tell anybody about illness. The average clinical TBscore was 5.8±2.48. The overall BIPQ score = 40.89±8.21 (in 50% patients, it ranged from 34-46). The highest item-related scores were found for treatment control (8.11), consequences (7.57) and concern (6.17), and the lowest for identity (5.02). The top listed causes of TB were stress, smoking and malnutrition.

No significant correlation between clinical TBscore and BIPQ score was found (p=0.311).

Conclusion: The preliminary results of the implementation of the BIPQ in TB patients require further research with a larger sample size aimed to confirm specific fields for proper intervention.


P2512

The evolution of TB among economic immigrants in Greece the last 11 years

Eipida Theodorakopoulou1, Georgios Koulouris2, Panagiotis Theodorakopoulou3, 1Ministry of Health, Research Institute of Lung Diseases Hygiene and Safety of Work, Athens, Greece; 3ERGOEREVNITIKI N G O. Kymi, Euboea, Greece

Aim: Evolution of TB rates among economic immigrants who visited Greece the last 11 years.

We studied 4 groups of economic immigrants (18-68 yrs) coming from 80 countries who were subjected into obligatory x-ray screening, for the issue of residence permit. The 1st group consisted of 22.416 persons (14.199 men, 8.217 women), reviewed from 1997-2001; the 2nd 36.546 persons (20.302 m, 16.244 w) from 2001-2002, the 3rd 17.717 persons (11.812 m, 5.905 w) from 2002-2006 and the 4th group 3.617 persons (2.73 2m, 885 w) from 2007-2008.

We revealed some cases of active TB. In the 1st group we found 51 persons (38 men, 13 women) coming from 14 countries. The incidence was 228/100.000. In the 2nd group, 88 persons (52 m, 36 w) from 21 countries, incidence: 241/100.000. In the 3rd group, 32 persons (23 m, 9 w) from 12 countries, incidence: 181/100.000. In the 4th group 5 persons (4 m, 1 w) from 14 countries, incidence: 138/100.000.

Among the 4 groups we observed fluctuations to the rates of incidence. The countries presenting increasing rates of active TB among to 1st and 2nd group (1997-2000) were accordingly: Georgia, Ukraine, Albania, Poland, Rumania, Russia, Armenia, Moldavia, Bulgaria, Bangladesh, Pakistan, Ethiopia, India. By the 3rd and 4th group (2003-2008) the countries with increasing rates of active TB were: Bangladesh, Pakistan, Afghanistan, India, Georgia, Russia, Ukraine, Armenia, Moldavia, Poland, Rumania, Bulgaria & Albania.

Conclusions: The rates of active TB were tremendous comparing to other de veloped countries. An impressive turnover to the rates of active TB is observed in countries from 3rd and 4th group comparing to 1st and 2nd group, hence the change of the migration course to our country form Eastern European countries to Asiaic.
P2514

A cost-benefit analysis of the value of third sputum smear for the diagnosis of tuberculosis in India

Lameres-Pinto L1, Zarif Farokh Udawida S, Shabhabha Shenai2, Camilla Rodrigues3, 1Department of Respiratory Medicine, P.D.Hinduja Hospital and Medical Research Centre, Mumbai, Maharashtra, India, 2Department of Microbiology, P.D.Hinduja Hospital and Medical Research Centre, Mumbai, Maharashtra, India

Introduction: India bears a third of the burden of tuberculosis (TB) cases worldwide. The country’s Revised National Tuberculosis Control Programme (RNTCP) mandates analyzing 3 sputum smears for diagnosing TB. An overburdened health workforce and limited financial resources warrant an audit of the need for the third smear.

Aim: To analyze the incremental yield of the third sputum smear (Y3) in diagnosing TB.

Methods: 400 consecutive adult patients with clinical and/or radiological suspicion of TB enrolled, and consented to submitting 3 sputum smears. A diagnosis of smear-positive TB was made if a single smear was found positive.

Results: 243 males and 157 females with a median age of 34 years were included in the study. 245 subjects (61.2%) were found to be smear-positive for TB using smear-positive cases as the denominator. 86.93% (213 patients) were diagnosed by the 1st smear. The incremental yield of the 2nd smear (Y2) was 10.2% (25 patients), and Y3 was 2.87% (7 patients). Analysis of 57 additional third smears was needed to diagnose one additional case of TB. This came at a cost of 153 € approx. and a work-time of 3 to 5 person-hours. The cost to the patient for the added visit, including lost wages and travel were not included in the analysis.

Conclusion: The marginal increase in yield with analysis of the 3rd sputum smear for the diagnosis of TB may not justify the significant burden that it imposes on both the patients and the Indian healthcare system. The RNTCP should consider revising its guidelines and accept two sputum smears as adequate for diagnosing TB, a view endorsed and recommended by the World Health Organization to the Strategic and Technical Advisory Group on TB (STAG).

P2515

Tuberculosis disease in a cohort of asylum seekers in Norway

Ingunn Harstad1, Sigurd Steinshamn2,1, Einar Heldal4, Helge Garåsen1,1, Geir Jacobson1, 1Department of Public Health and General Practice, Norwegian University of Science and Technology, Trondheim, Norway, 4Department of Circulation and Medical Imaging, Norwegian University of Science and Technology, Trondheim, Norway. 2Department of Pulmonary Medicine, St. Olavs University Hospital, Trondheim, Norway, 3Norwegian Institute of Public Health, Oslo, Norway. 5Department of Health and Social Welfare, City of Trondheim, Trondheim, Norway

Background: About 80% of new tuberculosis cases in Norway affect people from high risk countries. All asylum seekers are screened for tuberculosis on arrival.

Aim: To assess characteristics for tuberculosis disease identified at screening and follow-up of screening results in a cohort of asylum seekers.

Methods: We included all asylum seekers aged 18 and over who arrived in Norway between January 2005 and June 2006 and had Mantoux ≥6mm and/or x-ray findings that could be related to tuberculosis. Screening results were collected from the data base at the National Receptation Centre. Follow-up results were collected from public health authorities in the municipality to where the asylum seekers had moved, and from a hospital internist in case they were referred. Names and dates of birth were matched with the National TB Register, which includes all active TB.

Results: From 4643 eligible asylum seekers, 2237 were included. By May 2008, 28 cases of active tuberculosis were diagnosed, 13 males and 15 females, 12 of the females came from Somalia. The time interval between arrival and diagnosis was 0-27 months (mean 7; sd 7.8 – median 4). Eighteen of the diagnosed cases had pulmonary TB and 21 had a verified positive culture.

A positive x-ray, Mantoux ≥15 mm and being female were the characteristics that were associated with tuberculosis. Information about previous TB treatment, TB exposure last two years, a perceived ill health, a persistent cough, other specific TB symptoms, and positive clinical findings were also associated to TB disease.

Conclusions: Females, in particular if they came from Somalia had an increased risk for being diagnosed with TB. A positive x-ray on arrival was significantly associated with active TB.

P2516

Homeless tuberculosis – our three year experiences in bydgoszcz, poland

Grzegorz Przybylski1, Dorota Krawiecka2, Aleksandra Gadzinska1, 1Department of Respiratory Medicine, P. D. Hinduja Hospital and Medical Research Centre, Mumbai, Maharashtra, India, 2Department of Microbiology, Regional Center of Pulmonology, Bydgoszcz, Poland

Pulmonary tuberculosis is contagious disease caused Myc. tuberculosis. The prevalence of TB in the homeless is a rising problem. Several factors combine are make it difficult tuberculosis in the homeless. The homeless, people without a permanent address for a variety of reasons completely eludes any medical or sociological evaluations. The study attempted to evaluate homeless patients treated of pulmonary tuberculosis in the Kujawy Poméranian province in three years. The material was based about the computer base Regional Center of Pulmonology in Bydgoszcz. The data were analysed statistically. According to the given statistical office province counts 2.1 millions citizens. It was notified 42 cases of tuberculosis among homeless from the of the Kujawy Poméranian province years 2006-2008 (14 + 16 + 12). Men made up in this group 90%. The ratio of morbidity on tuberculosis in this population was in 2006y - 604,3/100000 and in 2007y - 758.65. For the general population carried out 23,6 in 2006y and 25,4 in 2007y. We do not yet possess full given statistical for 2008. All cases were confirmed growing the strain M. tuberculosis complex and in 80% also the investigation by sputum smear positive AFB. Radiological image showed advanced changes (bilateral changes, numerous cavities, infiltrates crossing two lobes). The numerous coexistence of diseases accompanied tuberculosis (alcoholism, psychiatric illness et al). This patients interrupted treatment many times. There were 5 deaths among them a cause extreme cachexy. The data show that the homeless not only run a higher risk of contracting tuberculosis, but are also a source of potential infections and follow up and treatment present unique difficulties.

P2517

Socio-economic status of TB inpatients in Iran (new case and MDR)

Mojgan Azadi1, Payam Tabarsi2, Parvane Baghhti3, Mohammad Reza Masjedi4, Mohmmad Tajibakhsh4, 1Research, National Research Institute of Tuberculosis and Lundy Diseases, Tehran, Islamic Republic of Iran, 2Tuberculosis, National Research Institute of Tuberculosis and Lundy Diseases, Tehran, Islamic Republic of Iran

Introduction: One of the most important factors in diagnosis, treatment and follow up the TB patients, especially MDR-TB, is their level of knowledge and revenue. This study investigates the pattern of socio-economic status of TB inpatients.

Aim: To determine the pattern of socio-economic status of TB inpatients and compare between MDR-TB and New-case TB inpatients in NRITLD (referral center for MDR inpatients in Iran).

Materials and methods: This study was applied an retrospective cross-sectional study conducted in the 2008 year in National Research Institute of Tuberculosis and lung disease (Referral center for MDR TB in Iran). A questionnaire has been designed to collect the data.

Results: This study revealed these main results: 1- Average income in MDR-TB inpatients (9.3%) was 775 and in new-case was 1055, 2- 10.1% of MDR-TB inpatients and 16.5% of New-case were unemployment, 3- The higher frequency of family number was 164% in 4 people in a house, 4- The percentage of education in MDR-TB was 60% illiterate and in New case TB is 59.6%. 5- The high rate of inpatient (27.6%) didn’t have any insurance support, 6- Femal frequency were 42% and the mean age of was year 49 age.

Discussion: The strengthened and enhanced financial support in TB patients has got the essential role to help these patients to treat and follow up their problems. Nearly more than half of TB inpatients are illiterate so socio-economic factors being important correlates in TB patients. The findings can be used to advance the argument in support for financial and insurance among TB patients in Iran.

P2518

Pulmonary tuberculosis in occupational health – 5 years experience at the pulmonary diagnostic centre of Coimbra, Portugal

Gilberto Silva1,2, Sandro Gomes1,2, Celeste Alcobá1, Cravo Roxxo Paulo1, Bagana Manuel1,1 Pulmnonology and Allergology, University Hospital of Coimbra, Coimbra, Portugal, 2Pulmonary Diagnostic Centre of Coimbra, Pulmonary Diagnostic Centre of Coimbra, Coimbra, Portugal

Introduction: Health care professionals are in constant exposure to Mycobacterium tuberculosis. It is important to know the incidence of infection in these workers, the forms of exposure and contamination to develop means to control the transmission in hospitals.

Objective: To evaluate the incidence of Tuberculosis among health care profession- als focusing on parameters such as biotype, smoking habits, occupation, disease site, sensitivity to antibiotics, results of treatment, complications, recurrence and survival.

Methodology: Retrospective analysis of clinical case notes of health care professionals treated at the Pulmonary Diagnostic Centre of Coimbra for Tuberculosis during a 5 year period (2002-2006).

Results: We included 16 patients, 68.75% were female, with a mean age of 41.65±12.8 years. Half of the patients were nurses, 31.25% were doctors, 12.5% and 6.35% were Administrative workers and nurse helper respectively. Pulmonary tuberculosis occurred in 81.25%, pleural tuberculosis in 12.5% and Nodal tuberculosis in 6.25%. Mycobacterium tuberculosis complex was identified in all cases and antibiogram showed sensitivity for all antibiotics.

Conclusion: The incidence of new cases/year of tuberculosis among health work- ers is higher than in the general population. More studies are needed, to develop new measures of prevention and control of transmission.

445s
Role of different risk factors in development of recurrent tuberculosis of the lungs in conditions of Uzbekistan
Ravshan Hamrakulov. Department of Therapy, Institute of Pulmonology 
Aim: was to elucidate causes of development of recurrent tuberculosis of the lungs in different regions of Republic of Uzbekistan.
Material and methods: Ambulance histories of disease of 1538 patients of the II (A, B) of the group of the follow-up account in antituberculous hospitals in different regions of the Republic were studied. Of them were 528 from Tashkent, 276 – from Termez, 387 – from Nukus, and 347 – from Fergana. Of the total number of patients during 3 years 973 persons were underwent the repeated examination, of them recurrent tuberculosis was established in 63 (6,5%) subjects.
Results: recurrent tuberculosis of the lungs was more often noted in Nukus (11%) and Fergana (8,0%). There prevailed men (67,5%) and subjects of the young age up to 40 years. Recurrent tuberculosis was more often developing in patients with major residual changes in the lungs (34,3%), as well as in patients with minor residual changes with risk factors (presence of concomitant pathology - 48,3%). Analysis of dispensary histories of disease of patients with recurrent tuberculosis showed that 82,9% of patients had not received a full course of antituberculous treatment on account of different causes.
Conclusion: Complex of B the following factor: age, sex, concomitant diseases, character of process, residual changes in the lungs, social conditions are of importance in development of recurrent tuberculosis of the lungs in the Republic of Uzbekistan.