above-listed characteristics could be effective in further reducing the MDR-TB transmission among Tibetan refugees in India.

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776. Tuberculosis Screening Among People Living With HIV in Arkansas: A Ryan White Program Evaluation

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Background. The current TB screening practice among people living with HIV in the United States is understudied. In our preliminary study, we found that only 6 (12%) US states recommended TB screening in their HIV guidelines; and only half of the Ryan White Programs capture client TB status. In this ongoing project, we aim to determine the prevalence of TB screening among people living with HIV in Arkansas, inform policy revisions, and ultimately reduce the burden of TB-HIV comorbidity.

Methods. We generated a sample of patients who received Ryan White service during the last grant year (April 1, 2016 to March 31, 2017) from CAREWare (Ryan White client database). We reviewed these patient files in multiple site visits and collected data on TB screening practice. We then performed descriptive analysis and multivariate logistic regression to analyze TB screening patterns in Arkansas.

Results. To date, we reviewed 728 patient records from 22 clinics across Arkansas during a 6-month study period. Three hundred sixty-seven (50%) patients have baseline (HIV diagnosis) TB status. On the basis of the multivariate logistic regression model (adjusting for age, gender, race, and patient residence), TB screening among Ryan White patients vary significantly by clinical regions in Arkansas ($P < 0.0001$). As compared with the central region, HIV patients in the North Central clinical region are more likely to be screened for TB (OR, 23.28; 95% CI, 5.29, 102.49); and HIV patients in the Northeast clinical region are less likely to be screened (OR, 0.05; 95% CI, 0.01, 0.30).

Conclusion. We observed in Arkansas (1) low adherence to recommendations for TB screening among people living with HIV and (2) insufficient HIV surveillance infrastructure to capture TB status, and (3) geographic variations in TB screening practice among people with HIV, indicating the need for (1) clearer guidelines, (2) stronger TB education among providers, and (3) program collaboration and service integration between TB and HIV. In our next steps, we want to explore further into the regional variations in TB screening among people with HIV, in order to tailor interventions to different geographic regions. We also want to examine changes in TB screening practice after implementation of the new contract, and to determine the optimal frequency of TB screening among people living with HIV.

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777. Ten-Year Experience of Tertiary Hospital Regarding Epidemiology, Diagnostic Method, and Drug Resistance of Tuberculosis—Jeddah, Saudi Arabia

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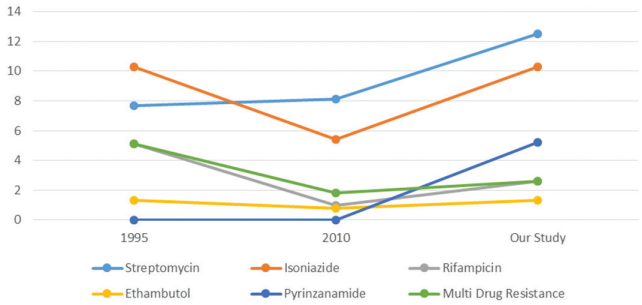
Background. The prevalence of tuberculosis across Saudi Arabia is variable with western provinces have the highest incidence. This study aimed to determine the epidemiology of tuberculosis in Jeddah, the age and gender distribution and the accuracy of conventional diagnostic method, for better understanding of tuberculosis-resistant pattern in the country.

Methods. Three hundred forty-four culture proven tuberculosis where collected from November 2006 to November 2016 in KFSHRC. AFB smear and nucleic acid amplification test (NAAT) were conducted in all positive cultures, and all data were analyzed using SPSS. Mean days number to culture positivity was 12.79.

Results. TB showed young age predominant (59.5%) compared with older population (37.0%) and pediatrics (3.5%), with 55.4% males and 44.6% females, 54.8% of samples were taken from pulmonary and 45.2% from extra pulmonary site of infection. 68.3% and 5.9% of the tuberculosis proven culture were negative by using AFB smear and NAAT, respectively, and only 68.8% were positive for mycobacterium tuberculosis complex by using NAAT. Resistant level to first-line anti tuberculosis of 12.5%, 10.3%, 5.2%, 2.6%, 1.3%, 2.6% to Streptomycin, isoniazid, pyrazinamide, Rifampicin, Ethambutol and multidrug-resistant, respectively, was observed in our study.

Conclusion. Young age predominance, high values of negative smear and NAAT increased incidence of extra pulmonary site of infection and Re-emergence of tuberculosis resistant which was observed in our study compared with previous national surveys (Illustrated in Figure 1), all should alter physicians' Attention when investigating patients in Saudi Arabia and high clinical suspicion should be considered.

Figure 1 : Trend of Drug Resistance and Multidrug Resistance in Jeddah , Saudi Arabia



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778. Trend of Tuberculosis Meningitis and Associated Mortality in Texas, 2010–2017, A Large Population-Based Analysis

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Background. As the most severe form of tuberculosis (TB), TB meningitis (TBM) is still associated with high mortality even in developed countries. In certain US states more than 50% of the TBM patients eventually die or have neurological complications despite having advanced healthcare settings. This population-based analysis aimed to determine the risk factors and trends associated with TBM morbidity and mortality using state-wide surveillance data.

Methods. De-identified surveillance data of all confirmed TB patients from the state of Texas reported between January 2010 and December 2017 to the National TB Surveillance System was analyzed. Spatial distribution of TBM cases was presented by Stata's Geographic Information Systems mapping. Univariate and multiple logistic regression were used to identify risk factors associated with meningitis morbidity and mortality. Non-parametric trend testing was used for the morbidity and mortality trends.

Results. Among 10,103 TB patients reported from Texas between 2010 and 2017, 192 (1.9%) had TBM. Over the 8-year period, TBM proportion fluctuated between 1.5% and 2.7% with peaks in 2011 (2.7%) and 2016 (2.1%) and an overall trend $z = -1.32$, $P = 0.19$. TBM had higher mortality at diagnosis (8.9%), during treatment (20.3%) and overall (22.9%) than non-TBM (1.9%, 6.8%, and 7.2%, respectively, $P < 0.001$). While the mortality during treatment was unchanged overtime in non-TBM patients ($z=0.5$, $P = 0.62$), it has consistently increased in TBM patients since 2013 ($z=3.09$, $P = 0.002$). TBM patients had more than 7 times the odds for overall death in multivariate analysis [OR 7.25 (95% CI 4.64, 11.33), $P < 0.001$]. TBM patients were younger, more likely to present with miliary TB or HIV(+). Age ≥45 years, resident of a long-term care facility, IDU, diabetes, chronic kidney disease, abnormal chest radiograph, positive AFB smear or culture, culture not converted from positive to negative, and HIV(+) were independently associated with a higher mortality.

Conclusion. TBM remains a challenge in Texas with significantly higher mortality. Risk factors determined by multivariate modeling will inform health professionals and lay a foundation for the development of more effective strategies for TBM prevention and management.

Spatial distribution of TB meningitis in Texas, 2010-2017