above-listed characteristics could be effective in further reducing the MDR-TB trans-
mission 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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Session: 70. Tuberculosis and Other Mycobacterial Infections
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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 col-
lected data on TB screening practice. We then performed descriptive analysis and mul-
tivariate 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 base-
line (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 prac-
tice 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 prac-
tice 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 epi-
demiology 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 pop-
ulation (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 tubercu-
losis 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 tubercu-
losis resistant which was observed in our study compared with previous national sur-
veys (Illustrated in Figure 1), all should alter physicians’ Attention when investigating
patients in Saudi Arabia and high clinical suspicion should be considered.
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779. Mycobacterium tuberculosis Prosthetic Joint Infections: A Case Series and Literature Review
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Background. Mycobacterium tuberculosis is a rare cause of prosthetic joint infection (PJI), as most countries with high prevalence of tuberculosis have limited access to arthroplasty. We aimed to characterize the diagnosis, the management, and the outcome of M. tuberculosis PJI.

Methods. All cases of M. tuberculosis PJI documented in a network of 7 referral centers in France were retrospectively reviewed. Data were collected from medical files on a standardized questionnaire, including diagnosis, management, and outcome. In addition, we performed a systematic literature review using the keywords "prosthetic joint," and "tuberculosis." The risk factors were analyzed using univariate and multivariate logistic regression analysis.

Results. During years 1997–2016, we managed 13 patients (8 males, 5 females, median age 79 years [range, 60–86]) with documented M. tuberculosis PJI, involving hip (n = 6), knee (n = 6), or shoulder (n = 1). Median time from arthroplasty to PJI diagnosis was 9 years [0.4–20]. The diagnosis was obtained on joint aspirates (n = 9), or synovial tissue (n = 4). PCR was positive in all cases tested (5/5). Median duration of antituberculosis treatment was 14 months (6–32). Nine patients underwent surgery: debridement (n = 4), definitive resection arthroplasty (n = 3), and revision arthroplasty (1-stage exchange, n = 2). PJI was controlled in 12 patients. One patient died of disseminated tuberculosis. The literature review identified 70 additional cases of documented M. tuberculosis PJI, with a favorable outcome in 79% (11/14) of patients with no surgery, 85% (11/13) with debridement and prosthesis retention, 86% (19/22) with revision arthroplasty, and 81% (17/21) with definitive prosthesis resection (NS).

Conclusion. M. tuberculosis PJI can be controlled with prolonged antituberculosis treatment in most cases, with or without surgical treatment. This case series and literature review suggest that the paradigms for the management of M. tuberculosis PJI may differ from PJI related to other pathogens, for which surgery is required.

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780. Incidence and Prevalence of Nontuberculous Mycobacterial Lung Disease in US Medicare, 2008–2015
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Background. Previous research has reported nontuberculous mycobacterial lung disease (NTMLD) prevalence of 47 per 100,000 among Medicare beneficiaries 265 years in 2007, with an average increase of 8.2% annually between 1997 and 2007. In this study, we have evaluated NTMLD incidence and prevalence in Medicare between 2008 and 2015.

Methods. Patients diagnosed for NTMLD with an ICD9 031.0 were identified from the Medicare database (N=30 million yearly), not including the Part C portion. Individuals who incurred at least 2 medical claims ≥30 days apart between 2007 and 2015 were considered as a positive NTMLD case, yielding 58,294 patients. All individuals fulfilling the case definition each calendar year were considered as prevalent cases. Incident cases included those meeting case criteria and who did not have a Medicare claim for NTMLD in the prior year. Poisson regression was used to estimate yearly confidence intervals. ARIMA models were used to forecast incidence and prevalence over 2016–2025.

Results. Patients with NTMLD in the Medicare database had a mean age of 74 (standard deviation: ±10) years. Sixty-nine percent were women and 89% white. Yearly NTMLD incidence increased from 20.7 (95% CI: 20.2–21.3) in 2008 to 28.1 (27.5–28.7) in 2013 per 100,000 Medicare beneficiaries and leveled to 27.6 (26.9–28.2) in 2014 and 25.9 (25.3–26.5) in 2015 per 100,000. Yearly NTMLD prevalence increased throughout the observation period from 41.6 (40.9–42.3) in 2008 to 63.1 (62.2–64.0) in 2015 per 100,000 Medicare beneficiaries. Incidence was 28.1 vs. 14.7 per 100,000 in 2015 in Medicare beneficiaries 265 years vs. those <65 years, respectively. Prevalence was 70.2 vs. 27.9 per 100,000 in 2015 in Medicare beneficiaries 265 years vs. those <65 years, respectively. In 2015, incidence and prevalence were higher in women than men (33.9 vs. 27.9/100,000 in 2015 in Medicare beneficiaries versus 13.9 vs. 11.5/100,000 in 2015 in Medicare beneficiaries 70 years vs. those <65 years, respectively). The 10-year incidence and prevalence forecasts were presented in figures.

Conclusion. In US Medicare beneficiaries, NTMLD incidence increased from 2008 through 2013 and leveled off in more recent years, while NTMLD prevalence continued to rise through 2015.

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