P16.23 CLINICAL AND EPIDEMIOLOGICAL CHARACTERISTICS ASSOCIATED WITH UNFAVOURABLE TUBERCULOSIS TREATMENT OUTCOMES IN TB-HIV CO-INFECTED PATIENTS IN BRAZIL: A HIERARCHICAL POLYTOMOUS ANALYSIS

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Introduction TB-HIV co-infected patients have worse treatment outcomes than non-coinfected patients. How clinical characteristics of TB and patient socioeconomic characteristics influence these outcomes is poorly understood. We identified clinical and epidemiological characteristics associated with unfavourable treatment outcomes in TB-HIV co-infected patients in Brazil.
Methods TB-HIV cases reported in the Brazilian information system (SINAN) between January 1, 2001 and December 31, 2011 were identified and categorised by TB treatment outcome (cure, default, death and development of MDR TB). We modelled treatment outcome as a function of clinical characteristics of TB and patient socioeconomic characteristics using polytomous regression. For each possible outcome (default, death from TB, death from other case, death from MDR-TB) the reference outcome was cure.
Results Patients aged 15–19 (OR = 2.86; 95% CI: 2.09–3.91) and 20–39 years old (OR = 2.30; 95% CI: 1.81–2.92) were more likely to default on TB treatment than those aged 0–14 years old. In contrast, patients aged ≥60 years were more likely to die from TB (OR = 2.22; 95% CI: 1.43–3.44) or other causes (OR = 2.86; 95% CI: 2.14–3.83). Black patients were more likely to default on TB treatment (OR = 1.33; 95% CI: 1.22–1.44) and die from TB (OR = 1.50; 95% CI: 1.29–1.74). Patients with ≥8 years of education were less likely to default on TB treatment (OR = 0.68; 95% CI: 0.63–0.74), die from TB (OR = 0.82; 95% CI: 0.71–0.94) and die from other causes (OR = 0.78; 95% CI: 0.71–0.84). Finally, alcoholism was associated with all unfavourable outcomes: default (OR = 1.94; 95% CI: 1.73–2.17), death due to TB (OR = 1.46; 95% CI: 1.25–1.71), death due to other causes (OR = 1.38; 95% CI: 1.21–1.57) and MDR-TB (OR = 2.29; 95% CI: 1.46–3.58).
Conclusion Socio-economic vulnerability has a significant effect on treatment outcomes among TB-HIV co-infected patients in Brazil. Enhancing social support and incorporation of alcohol abuse screening and counselling into current TB surveillance programs and targeting interventions to specific age groups are specific interventions that could improve treatment outcomes.
Disclosure of interest statement Nothing to declare.

P16.24 A 20-YEAR RETROSPECTIVE COHORT STUDY OF TB INFECTION AMONG THE HILL TRIBE HIV/AIDS POPULATIONS, THAILAND

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Background A retrospective cohort study was conducted to determine the situation, trend, and possible risk factors of TB infection, and factors related to the health status among the HIV/AIDS hill tribe in northern Thailand.
Methods A systematic data-reviewing approach was used to identify the information from the rosters of ARV clinics, OPD cards, and laboratory reports from 16 hospitals in Chiang Rai Province, Thailand. The data were collected from the first reported HIV/AIDS case of the hill tribe to the end of 2010. A chi-square test and logistic regression models were used to identify associations at the significance level of alpha = 0.05.
Results A total of 3,130 cases were included in the study. The majority of patients were Akha (46.0%) followed by Lahu (19.7%), 54.6% were males, 44.6% were 26–35 years old, and 25.2% were 36–45 years old. The peak period of HIV/AIDS infection among the hill tribes was from 2001–2005, during which occurred in 43.9% of all cases, followed by 33.7% from 2006–2010. The recorded occupations were 44.8% agricultural and 32.2% traders. The major risk factor of HIV infection was sexual intercourse (91.7%); 33.3% were still alive at the date of data collection, 30.7% were diagnosed with pulmonary TB, 76.0% did not receive ARV and 9.1% had been checked for CD4 level. The Lisu hill tribe HIV/AIDS individuals had a greater risk of TB infection than did Lahu individuals (OR_{adj} = 1.50, 95% CI = 1.04–2.16). Females had a greater risk of TB infection than did males (OR_{adj} = 1.22, 95% CI = 1.01–1.49); being classified as symptomatic HIV group was a protective factor of TB with OR_{adj} = 0.18 (95% CI = 0.11–0.29); and not having received the ARV was also a protective factor with OR_{adj} = 0.06 (95% CI = 0.05–0.08). The patients who had been diagnosed with HIV infection during 2001–2005 and 2006–2010 had a greater risk of TB infection than did those who were diagnosed from 1990–1995, with OR_{adj} = 21.39 (6.59–69.42) and 13.70 (4.19–44.73), respectively.
Conclusions Thailand needs to create a TB and HIV/AIDS surveillance system for hill tribe populations to determine the situation and trend and to develop an appropriate model for providing care at the earlier stage of HIV/AIDS infection to prevent later TB infection.

P16.25 THE INCIDENCE AND ASSOCIATED FACTORS OF HERPES ZOSTER AMONG HIV INFECTED PATIENTS: A POPULATION-BASED RETROSPECTIVE COHORT STUDY IN TAIWAN, 2000 THROUGH 2010

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Introduction Highly active antiretroviral therapy (HAART) has been demonstrated to be effective in decreasing the incidence of opportunistic infections, AIDS, and death among patients with HIV infection. Herpes zoster (HZ) infection is common among patients with HIV infection. However, the impact of HAART on the incidence of HZ infection is not well understood.
Methods This nationwide, population-based, retrospective cohort study was conducted using Taiwan National Health Insurance Research Database (NHIRD) from 2000–2010. The NHIRD identified 15,112 patients with HIV infection. The incidence rates were standardised according to age based on the 2000 WHO standard population. Cox proportional hazards models were used to assess the effect of HAART on the incidence of HZ infection among patients with HIV infection.
Results The average incidence of the first episode of HZ after the diagnosis of HIV infection was estimated at 5.07 people/100 person-years. Multivariate Cox proportional hazards model showed that history of HZ infection (adjusted hazard ratio