

ABSTRACT

Factors Contributing towards Loss to Follow Up among Tuberculosis Patients in Sabah

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Introduction: Sabah is a high tuberculosis (TB) burden area with incidence rate of 120 – 138 per 100,000 population. Until now, TB is still unable to control due to high loss to follow up rates. Loss to follow up TB treatment can cause to increase notification rate, prolonged infection, recurrent TB infections, increase multiple drug-resistance, and increase morbidity and mortality rates. To know the factors that contribute towards loss to follow up will better understand the epidemiology of treatment outcome and guide for appropriate strategies planning to improve the situation. Previous study by Liew et al. indicated that, incidence rate for loss to follow up in 2012 in Malaysia was 10.5%. **Objective:** This study was designed to determine factors contributing toward loss to follow up among TB patients in Sabah. **Methodology:** This was retrospective cohort study. Socio-demographic, lifestyle, TB related characteristics and healthcare facilities characteristics data were analyzed. Loss to follow up included patients' loss to follow up from treatment and transferred out of the country. Other treatment outcomes included cured, completed treatment, death, failed treatment and ongoing treatment. A total of 14,168 patients who registered under National TB Information System (TBIS) from 1st January 2014 to 31st December 2016 in Sabah were included in the study. **Results:** The mean age was 39.5 years old, median age was 37 years old and 7% incidence rate was loss to follow up (2.4% loss to follow from treatment and 4.6% transferred out from the country). On

multivariate analysis, age ≤ 37 years old (AOR: 2.69, 95% CI: 2.19 – 3.28), male (AOR: 1.29, 95% CI: 1.02 – 1.62), non-Malaysian (AOR: 4.79, 95% CI: 3.79 – 6.07), rural (AOR: 0.62, 95% CI: 0.51 – 0.75), smoker (AOR: 1.72, 95% CI: 1.39 – 2.14), Tb-HIV co-infection (AOR: 0.35, 95% CI: 0.19 – 0.68), extra-pulmonary TB (AOR: 0.53, 95% CI: 0.38 – 0.84), chest X-ray finding with far advanced (AOR: 0.38, 95% CI: 0.22 – 0.65) and DOT (AOR: 138.44, 95% CI: 108.04 – 177.40) were independently associated with loss to follow up. **Conclusion:** The most important risk factor

led to patient loss to follow up was directly observed therapy (DOT). The proper education and health promotion programme must be done to increase patients' initiative to proper concern about their health. International collaboration must be strengthened due to the individual patient might be missing while move abroad. The intervention need to be focused on young adult age group patients like education and counselling. The DOT must be strengthened in all the healthcare facilities.