Pulmonary Tuberculosis: Treatment Outcomes and Factors Associated with Poor Treatment Outcome in Pahang, Malaysia.

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Introduction: Tuberculosis (TB) remains a formidable public health concern in Malaysia. Malaysia’s national treatment success rate is still below the ideal 90% positive outcome recommended by the End TB Strategy (2015-2035). In this study, we evaluated the treatment outcomes and associated predictors of smear or culture positive pulmonary tuberculosis (PTB) patients. Materials and Methods: This is a retrospective cohort study conducted in chest clinic of Hospital Tengku Ampuan Afzan (HTAA), Pahang from January 2012 to December 2016. PTB cases in HTAA were crosschecked with TB registry and patients who fulfilled the inclusion criteria were selected. Data was collected using a standardized clinical report form and analyzed using multiple logistic regression. Results: There were a total of 342 patients recruited. Majority were Malaysian (94.2%), male (67.8%) and Malay (80.0%). The treatment success rate was 55.26%, with a cure rate of 42.98%. The high portion of defaulters (21.05%) in our study population was amongst the most striking findings. Multiple logistic regression analysis revealed that the factors associated with unfavourable treatment outcome were time in treatment, case after treatment interruption or failure and poor compliance. Univariate analysis revealed that male, hepatitis, smoking and intravenous drug user were found to be significant factors associated with poorer treatment outcomes. Conclusion: Achieving a higher patient retention rate is a significant factor in increasing effectiveness of treatment services. Thus, our study recommends stricter Directly Observed Treatment, Short Course (DOTS) and an enhanced understanding of the real barriers to patients’ treatment regimen adherence in order to overcome them.