

Prevalence and characteristics of drug-resistant tuberculosis cases in Selangor and Wilayah Persekutuan Kuala Lumpur

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ABSTRACT

Introduction: Drug-resistant tuberculosis (DR-TB) poses a serious global health threat, leading to high morbidity and mortality rates. Malaysia has witnessed an increase in DR-TB cases, but there is a need for more research on the trends and characteristics of these cases in the country. This study aims to determine the prevalence and describe the characteristics of DR-TB cases in Selangor and Wilayah Persekutuan Kuala Lumpur from 2016 to 2020. **Materials and Methods:** A retrospective record review was carried out, utilising secondary data obtained from MyTB. All reported DR-TB cases in MyTB between 2016 and 2020 that met the study criteria were analysed. Descriptive statistics were performed to examine the sociodemographic and clinical characteristics. **Results:** This study examined 403 cases of drug-resistant tuberculosis (DR-TB) out of the 444 cases registered in the MyTB database for Selangor and WPKL over five years. The prevalence of DR-TB increased from 0.31 to 1.83 per 100,000 population between 2016 and 2020. Favourable treatment outcomes were observed in 58.0% of cases, while 42.0% had unfavourable outcomes, mainly due to loss to follow-up (21.0%), death (18.0%), and treatment failure (3.0%). The average age of the cases was 40.95 years, and the majority were male (71.2%) and Malaysian (79.7%), with Malays comprising 49.6%. Most patients had up to secondary school education, were married, and were employed. Among the DR-TB patients, 23.6% had diabetes, and 11.4% were HIV-positive. Retreatment cases accounted for half the total, and 82.8% had positive smear results. Minimal chest X-ray lesions were observed in 54.8% of cases. The majority (66.3%) received supervised treatment from healthcare providers, and 36.5% were classified as multi-drug resistant. Additionally, 35.7% of DR-TB cases were smokers. **Conclusion:** The rising cases of DR-TB call for comprehensive public health interventions and stakeholder commitment to reduce its occurrence and transmission. These findings can guide policymakers in developing strategies for DR-TB control and prevention.