## A decade of tuberculosis mortality and its determinants in Pasir Mas district, Kelantan

Nik Nur Liyana Che Hasan¹, Jusoh Awang Senik¹, Muhamad Yusof Zainal², Mohd Ihsan Mustapha Abdul Aziz³, Zulaikha Mat Jusoh³, Mohd Hazwan Baharuddin⁴, Nik Aida Nik Adib⁵

<sup>1</sup>Bandar Pasir Mas Health Clinic, Kelantan, Malaysia, <sup>2</sup>Tendong Health Clinic, Kelantan, Malaysia, <sup>3</sup>Rantau Panjang Health Clinic, Kelantan, Malaysia, <sup>4</sup>Kelantan State Health Department, Kelantan, Malaysia, <sup>5</sup>Pasir Mas Health District Office, Kelantan, Malaysia

## **ABSTRACT**

Introduction: Tuberculosis (TB) is a highly contagious and serious illness that necessitates appropriate treatment and care to prevent mortality. It is essential to comprehend the factors influencing TB mortality in order to enhance treatment outcomes. The study aims to determine the proportion of TB mortality and identify its determinants in Pasir Mas, Kelantan. Materials and Methods: A retrospective record review analysis was conducted by obtaining the relevant information from myTB database from 2012 to 2012. A total of 900 TB patients were selected using simple random sampling methods to be included in the study. Multiple logistic regression analysis was used to identify the determinants of TB mortality. Results: The proportion of TB mortality was 23% (95%CI: 0.20, 0.26). The factors associated with death among TB patients are patient being notified at hospital [AdjOR 2.58 (1.44, 4.64), p<0.05]; living in urban areas [AdjOR 0.38 (0.18, 9.78), p<0.001]; and had history of TB [AdjOR 0.45 (0.22, 0.94), p<0.05]. Conclusion: In short, nearly a quarter of deaths were recorded among TB patients in Pasir Mas and are contributed by hospital notification, rural residency, and newly diagnosed TB. Thus, comprehensive, and targeted intervention addressing these factors are needed. Implementing culturally relevant approaches in the management of TB patients can enhance the sustainability and effectiveness of the treatment program.