

THE EFFECTS OF NUTRITIONAL STATUS AND DWELLING DENSITY ON THE RISK OF PULMONARY TUBERCULOSIS INCIDENCE IN MEDAN, NORTH SUMATERA

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ABSTRACT

Background: Tuberculosis (TB) remains a leading cause of morbidity and mortality in developing countries, including Indonesia. This study aimed to determine the effects of nutritional status and dwelling density on the risk of pulmonary TB incidence in Medan, North Sumatera.

Subjects and Method: This was a case control study conducted at Pulmonary Disease Hospital, Medan, North Sumatera, from January to June 2018. A sample of 116 patients was selected for this study, consisting 58 patients with TB and 58 patients without TB. The dependent variable was TB incidence. The independent variables were nutritional status and dwelling density. Data on TB case were obtained from the medical record. Nutritional status was measured by Body Mass Index (BMI). Dwelling density was measured by observation. The other data were collected by questionnaire. The data were analyzed by a multiple logistic regression.

Results: The risk of lung TB increased with low nutritional status (OR=3.07; 95% CI= 1.40 to 6.73; p= 0.005) and dense dwelling (OR= 2.83; 95% CI= 1.29 to 6.21; p= 0.009).

Conclusion: The risk of lung TB increases with low nutritional status and dense dwelling.

Keywords: nutritional status, dwelling density, lung tuberculosis

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