CONDITIONS CONTRIBUTING TO CHRONIC CO-MORBIDITY OF TUBERCULOSIS: EVIDENCE FROM INDONESIAN FAMILY LIFE SURVEY 5 YEAR 2014

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ABSTRACT

Background: Tuberculosis (TB) and HIV/AIDS persist as global emergencies. Non-communicable diseases interact adversely with TB by increasing both individual vulnerabilities to disease and the likelihood that the epidemic will be sustained within a population. Individual vulnerability is affected by the number and severity of co-morbid disorders. This study aimed to estimate the likelihood of some conditions to contribute to the chronic co-morbidity of TB.

Subjects and Method: This was a cross sectional study. A sample of 31,185 study subjects aged ≥ 18 years old with TB was selected for this study. The dependent variable was chronic co-morbidity. The independent variables were chronic pulmonary disease, asthma, diabetes, and hypertension. The data were obtained from Indonesian family life survey 5 (IFLS 5) year 2014. The data were analyzed by a multiple logistic regression run on Stata 13.

Results: The three highest contributors of chronic co-morbidity in TB patients were: (1) hypertension (19.1%), (2) chronic pulmonary disease (14.9%), and (3) asthma (13.7%). The lowest contributors of chronic co-morbidity were: (1) stroke (1.0%) and (2) hyperlipidemia (6.0%). The risk of chronic co-morbidity in TB patient increased with chronic pulmonary disease (OR= 8.21; 95% CI= 5.52 to 12.21; $p < 0.001$), asthma (OR= 5.64; 95% CI= 3.86 to 8.25; $p < 0.001$), diabetes (OR= 5.49; 95% CI= 2.27 to 13.26; $p < 0.001$), and hypertension (OR= 2.12; 95% CI= 1.11 to 4.04; $p = 0.023$).

Conclusion: The three highest contributors of chronic co-morbidity in TB patients are: (1) hypertension, (2) chronic pulmonary disease, and (3) asthma. The lowest contributors of chronic co-morbidity were: (1) stroke and (2) hyperlipidemia. The risk of chronic co-morbidity in TB patient increases with chronic pulmonary disease, asthma, diabetes, and hypertension.

Keywords: tuberculosis, co-morbidity, chronic pulmonary disease, asthma, diabetes

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