DEVELOPING PREDICTOR INDEX OF MULTI-DRUG RESISTANT TUBERCULOSIS IN SURAKARTA, CENTRAL JAVA

Putri Pamungkas[1], Setyo Sri Rahardjo[2], Bhisma Murti[1]

[1]Masters Program in Public Health, Universitas Sebelas Maret
[2]Faculty of Medicine, Universitas Sebelas Maret

ABSTRACT

Background: TB remains a leading cause of morbidity and mortality in developing countries, including Indonesia. Annual incidence of lung Tuberculosis in 2015 was 10.4 million worldwide. One of the challenging problems in TB control is the development of Multi Drug Resistant Tuberculosis (MDR-TB). There were an estimated 15,380 TB cases in Indonesia by 2015 with 1,860 positive TB cases and 1,566 cases successfully treated. This study aimed to examine the predictor index for MDR-TB.

Subjects and Method: This was a case-control study conducted at Dr. Moewardi Hospital, Surakarta, Central Java, from August to November 2017. The study subjects were selected by fixed disease sampling including 75 MDR-TB patients and 75 TB patients. The dependent variable was MDR-TB. The independent variables were medical history, co-morbidity (Diabetes Mellitus), drug side effect, drug-taking supervisor, and regularity of treatment. The data were collected by questionnaire and medical record. The data were analyzed by a multiple logistic regression.

Results: MDR-TB Predictor Index increased with drug-taking supervisor (b = 2.33; 95% CI= 3.83 to 27.91; p<0.001), drug-side effect (b= 0.73; 95% CI= 0.58 to 7.45; p= 0.026), medical history (b= 2.35; 95% CI= 3.80 to 29.38; p<0.001). MDR-TB Predictor Index decreased by absence of type 2 Diabetes Mellitus (b = -0.56; 95% CI= 0.18 to 1.78; p=0.033), regular treatment (b= -1.73; 95% CI= 0.06 to 0.46; p<0.001).

Conclusion: MDR-TB Predictor Index is determined by drug-taking supervisor, drug-side effect, medical history, Type 2 Diabetes Mellitus, and regular treatment.

Keywords: MDR-TB Predictor Index, medical history, drug-taking supervisor, drug-side effect, Type 2 Diabetes Mellitus, regular treatment

Correspondence:
Putri Pamungkas. Masters Program in Public Health, Universitas Sebelas Maret. Jl. Ir. Sutami No. 36 A, 57126, Surakarta, Central Java.
Email: pamungkasputri95@gmail.com.