ABSTRACT

DRUG UTILIZATION STUDY OF ANTI-TUBERCULOSIS IN PATIENTS WITH MULTIDRUG-RESISTANT TUBERCULOSIS
(Study at MDR-TB Unit at Dr. Soetomo Teaching Hospital Surabaya)

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Backgrounds: Multidrug-Resistant Tuberculosis (MDR-TB) is tuberculosis which *Mycobacterium tuberculosis* develop resistance to Isoniazid and Rifampicin. The prevalence of MDR-TB in Indonesia is high since an estimated 6800 new cases report every year. Standard regimens are Pyrazinamide (Z)–Ethambutol (E)– Kanamycin (Km)–Levofloxacin (Lfx)–Cycloserine (Cs)–Ethionamide (Eto) for intensive phase and Pyrazinamide (Z)–Ethambutol (E)–Levofloxacin (Lfx)–Cycloserine (Cs)–Ethionamide (Eto) for continuation phase. MDR-TB therapy is complicated and leads to many problems such as side effects, additional resistance, and non-adherence since patients are exposed to many drugs in the long term. Combination of anti-tuberculosis, dosing regimentation, and drug-related problems must be concern in order to achieve successful therapy.
Objectives: The purposes of this study were to analyze the profiles of anti-tuberculosis combination, dosing regimentation, and therapeutic outcomes, also identifying the problems related to anti-tuberculosis.
Methods: It was a descriptive study using retrospective data of MDR-TB patients who completed the therapy from January 1st 2015 to December 31th 2015, and conducted from March to May 2016 at Unit of MDR-TB in Dr. Soetomo Hospital Surabaya in Indonesia.
Results: Based on the study of 40 medical records of MDR-TB patients that fulfilled the inclusion criteria, most patients received combination Z-E-Km-Lfx-Cs-Eto (intensive phase) and Z-E-Lfx-Cs-Eto (continued phase). In the middle of therapy, there were some patients were changed to other combination and doses regimentation because of anti-tuberculosis side effects and additional resistance. The most prevalence of side effects such as hearing loss (60%) and increasing of uric acid. In this study, there were found patients which completed their therapy on normal duration (from 22 until 24 months) and exceed normal duration (from 25 until 32 months). Almost all of patients (97%) completed MDR-TB therapy and cured.
Keyword: anti-tuberculosis, MDR-TB, drug utilization study, combination, dosing regimentation