

ABSTRACT

**HEMATOLOGICAL SIDE EFFECTS ANALYSIS OF LINEZOLID IN
MDR-TB PATIENTS WITH INDIVIDUAL THERAPY**

**(The research was carried out at MDR TB Outpatient Clinic at Dr. Soetomo Hospital
Surabaya)**

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Linezolid is an effective drug for MDR TB therapy, but it is also a drug that has a high frequency of side effects in the form of anemia, thrombocytopenia and leukopenia. Decreased kidney function and low body weight are presumed to be the risk factors of the side effects. The objective of this study was to see the prevalence of hematological side effects and to analyze the risk factors for side effects induced by linezolid.

Data were collected retrospectively on the medical records of MDR TB patients who received linezolid at the MDR TB outpatient at Dr. Soetomo Hospital Surabaya. 104 medical records that met the inclusion criteria were obtained, however, there were 11 patients who entered the exclusion criteria because of HIV with zidovudine as treatment, had acute kidney injury, and patients had melena while undergoing linezolid therapy. So that the total sample was 93 patients.

There were 32 cases of side effects in 27 patients (29.03%). The highest was anemia in 27 cases (3 with life-threatening degree), thrombocytopenia in 3 cases, and leukopenia in 2 cases. Side effects began to appear when treatment was more than 2 weeks. The results of the statistical analysis showed that 4 variables were significantly different in the group affected by side effects including body weight, dose per kilogram of body weight per day (DPKD), creatinine clearance, and initial hemoglobin levels, but only 1 variable was a risk factor in the multivariate analysis, namely $DPKD > 11 \text{ mg / kg / day}$ with an adjusted odd ratio of 5.509 (95% CI 1.51-20.2).

Keywords : Adverse Effect, Hematologic, Linezolid, Risk Factor, TB MDR.