



# WORK CONFERENCE XVI

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theme :  
INCREASING PULMONOLOGY COMPETENCE  
TO STRENGTHENING  
COMPETITIVENESS IN SDGs ERA

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# PROFILE OF NEUTROPHIL-TO-LYMPHOCYTE RATIO (NLR) AND PLATELET-TO-LYMPHOCYTE RATIO (PLR) IN PATIENTS WITH MULTI-DRUG RESISTANT TUBERCULOSIS (MDR-TB) IN ULINGENERAL HOSPITAL BANJARMASIN

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## ABSTRACT

**Introduction :** TB and MDR-TB are the major health problems in the world. For diagnostic support, many inflammatory markers are known to increase in TB patients. Currently, there are many studies about NLR and PLR as markers of inflammation. However, only a small amount of research has been carried out regarding the value of NLR and PLR in MDR-TB patients. The aim of this study is to evaluate the value of NLR and PLR in MDR-TB patients based on the characteristics of age and sex in Ulin General Hospital Banjarmasin.

**Methods :** This is an observational study with retrospective cross-sectional approach from November 2015 to May 2017. The parameters observed were leukocyte differential count and platelet count to obtain NLR and PLR.

**Result :** The study included 35 patients (24 men, mean age 43.79±14.42 years; 11 women, mean age 44.64±12.65 years). Based on gender, the average value of NLR in men ranged from 5.48±4.26 and the PLR value ranged from 248.71±204.23. For women, the average value of NLR ranged from 5.23±5.33 and the PLR value ranged from 243.17±115.28. NLR value was highest in the 25-34 year age group (7.01±5.58) and the lowest value in the >64 year age group (2.24±2.11). Meanwhile, PLR value was highest in the 35-44 year age group (332.19±295.43) and the lowest value in the >64 year age group (154.26±98.03).

**Conclusion :** In this study, it was found that NLR and PLR value was not influenced by gender. Most MDR-TB patients were in the productive age group, ranging from 35-44 years (28.6%). For NLR

values, it was found to be highest in the 25-34 year age group and for PLR values, in the 35-44 year age group. Whereas, the lowest NLR and PLR values were found in the > 64 year age group.

**Keywords :** Neutrophil-to-Lymphocyte Ratio, Platelet-to-Lymphocyte Ratio, inflammatory markers, Multi-drug Resistant Tuberculosis