

PERBEDAAN JUMLAH LEKOSIT, *NEUTROPHIL-LYMPHOCYTE RATIO*, DAN *ABSOLUTE LYMPHOCYTE COUNT* PADA PASIEN COVID-19 YANG DIRAWAT DI RUANG INTENSIF DIBANDINGKAN NON INTENSIF DI RSUD PROF. DR. MARGONO SOEKARJO

ABSTRAK

Latar Belakang – COVID-19 merupakan penyakit yang disebabkan oleh virus SARS-CoV-2. Pemeriksaan hematologi yang dapat dilakukan pada pasien COVID-19 adalah jumlah lekosit, *Neutrophil Lymphocyte Ratio* (NLR), dan *Absolute Lymphocyte Count* (ALC) yang berkaitan dengan derajat keparahan penyakit. Penelitian ini bertujuan untuk melihat perbedaan jumlah lekosit, NLR, dan ALC pada pasien COVID-19 yang dirawat di ruang intensif dan non intensif.

Metode – Penelitian ini merupakan penelitian analitik observasional dengan desain *cross sectional*. Penelitian menggunakan data sekunder pasien rawat inap di RSUD Prof. Dr. Margono Soekarjo dalam rentang waktu 1 Januari – 31 Desember 2021. Data dianalisis menggunakan uji Mann-Whitney dengan program IBM SPSS 22.

Hasil – Jumlah data adalah 2.608 dengan 45 pasien di rawat di ruang intensif dan 2.563 di ruang non intensif. Terdapat perbedaan signifikan antara jumlah lekosit ($p=0,000$) dan NLR ($p=0,000$) pada pasien yang dirawat di ruang intensif dan non intensif. Tidak terdapat perbedaan signifikan antara ALC ($p=0,473$) pasien yang dirawat di ruang intensif ($1.317/\mu\text{L}$) dan non intensif ($1.414/\mu\text{L}$).

Simpulan – Jumlah lekosit dan NLR pada pasien COVID-19 yang dirawat di ruang intensif lebih tinggi bermakna dibandingkan di ruang non intensif. Tidak ditemukan perbedaan bermakna antara ALC pasien COVID-19 yang dirawat di ruang intensif dan non intensif.

Kata Kunci: ALC, COVID-19, Ruang Intensif, Jumlah Lekosit, NLR, Ruang Non Intensif

**DIFFERENCES IN THE LEUCOCYTE COUNTS, NEUTROPHIL-
LYMPHOCYTE RATIO, AND ABSOLUTE LYMPHOCYTE COUNT IN
COVID-19 PATIENTS BETWEEN INTENSIVE VERSUS NON-INTENSIVE
CARE WARDS AT PROF. Dr. MARGONO SOEKARJO HOSPITAL**

ABSTRACT

Background – COVID-19 is a disease caused by the SARS-CoV-2 virus. Hematological examinations that can be performed on COVID-19 patients are leukocyte count, Neutrophil Lymphocyte Ratio (NLR), and Absolute Lymphocyte Count (ALC) which are related to the severity of the disease. This study aims to look at differences in leukocyte count, NLR, and ALC in COVID-19 patients treated in intensive versus non-intensive wards.

Method – The study was an observational analytic study with a cross sectional design. The study used secondary data of inpatients at Prof. Dr. Margono Soekarjo Hospital within the period January 1 – December 31, 2021. Data were analyzed using the Mann-Whitney test with the IBM SPSS 22 program.

Results – The total number of data collected was 2.608 with 45 patients treated in intensive care and 2.563 patients treated in non-intensive care. There was a significant difference between leukocyte count ($p=0,000$) and NLR ($p=0,000$) in patients treated in intensive versus non-intensive wards. There was no significant difference between ALC ($p=0,473$) of patients treated in intensive (1.317/ μ L) versus non-intensive wards (1.414/ μ L).

Conclusion – The leukocyte count and NLR in COVID-19 patients treated in the intensive wards is significantly higher than in the non-intensive wards. There is no significant difference between ALC of COVID-19 patients treated in intensive versus non-intensive wards.

Keywords: ALC, COVID-19, Intensive Wards, Leukocyte Count, NLR, Non-Intensive Wards