

ABSTRAK

Hubungan Antara Indeks Eritrosit (MCV, MCH, MCHC) Dengan Kadar Hemoglobin Pada Pasien Anemia Di Rumah Sakit Windu Husada

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Anemia merupakan penyebab anemia tersering di dunia dan menjadi masalah kesehatan masyarakat yang signifikan di Indonesia. Diagnosis anemia umumnya mengandalkan indeks eritrosit berupa *Mean Corpuscular Volume* (MCV), *Mean Corpuscular Hemoglobin* (MCH), dan *Mean Corpuscular Hemoglobin Concentration* (MCHC) yang mencerminkan morfologi eritrosit secara kuantitatif, namun hubungannya dengan kadar hemoglobin pada pasien anemia belum dikaji secara lokal. Penelitian ini bertujuan menganalisis hubungan antara indeks eritrosit (MCV, MCH, MCHC) dengan kadar hemoglobin pada pasien anemia di Rumah Sakit Windu Husada. Penelitian menggunakan desain analitik korelasional dengan pendekatan *cross-sectional*. Sampel berjumlah 65 pasien anemia yang diperoleh melalui teknik *total sampling* dari data rekam medis periode Juli – Desember 2025. Data dianalisis menggunakan uji korelasi Spearman Rank. Hasil penelitian menunjukkan tidak terdapat hubungan yang signifikan antara MCV dengan kadar hemoglobin ($p = 0,075$; $r = 0,222$), antara MCH dengan kadar hemoglobin ($p = 0,140$; $r = 0,185$), maupun antara MCHC dengan kadar hemoglobin ($p = 0,367$; $r = 0,114$). Indeks eritrosit (MCV, MCH, MCHC) tidak dapat digunakan sebagai prediktor tunggal kadar hemoglobin pada pasien anemia, sehingga interpretasinya perlu dikombinasikan dengan parameter status besi yang lebih spesifik seperti ferritin serum dan TIBC.

Kata Kunci: *Anemia, Hemoglobin, Indeks Eritrosit*

ABSTRACT

The Relationship Between Erythrocyte Indices (MCV, MCH, MCHC) and Haemoglobin Levels in Anaemic Patients at Windu Husada Hospital

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Anaemia is the most common cause of anaemia worldwide and represents a significant public health problem in Indonesia. The diagnosis of anaemia generally relies on erythrocyte indices such as Mean Corpuscular Volume (MCV), Mean Corpuscular Haemoglobin (MCH) and Mean Corpuscular Haemoglobin Concentration (MCHC), which quantitatively reflect erythrocyte morphology; however, their relationship with haemoglobin levels in anaemic patients has not yet been studied locally. This study aims to analyse the relationship between erythrocyte indices (MCV, MCH, MCHC) and haemoglobin levels in patients with anaemia at Windu Husada Hospital. The study employed an analytical correlational design using a cross-sectional approach. The sample comprised 65 patients with anaemia, selected using total sampling from medical records for the period July–December 2025. The data were analysed using Spearman's rank correlation test. The results of the study showed that there was no significant correlation between MCV and haemoglobin levels ($p = 0.075$; $r = 0.222$), between MCH and haemoglobin levels ($p = 0.140$; $r = 0.185$), or between MCHC and haemoglobin levels ($p = 0.367$; $r = 0.114$). Red blood cell indices (MCV, MCH, MCHC) cannot be used as standalone predictors of haemoglobin levels in patients with anaemia; their interpretation must therefore be combined with more specific parameters of iron status, such as serum ferritin and TIBC.

Keywords: *Anaemia, Haemoglobin, Red blood cell indices*