

***Correlation Between Mean Corpuscular Hemoglobin Concentration (MCHC) Value with Ferritin Level in Iron Deficiency Anemia  
RS PKU Muhammadiyah Yogyakarta***

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***ABSTRACT***

***Background:*** Anemia which mostly found is iron deficiency anemia. Iron deficiency anemia can be diagnosed by looking at ferritin levels and mean corpuscular hemoglobin concentration values (MCHC). Ferritin is a certain indicator to diagnose iron deficiency anemia. Mean Corpuscular Hemoglobin Concentration (MCHC) is one type of erythrocyte indices need to be considered to diagnose iron deficiency anemia, however the value of mean corpuscular hemoglobin concentration (MCHC) is often said to be no significant clinical information.

***Research Objectives:*** To determine the relationship between mean corpuscular hemoglobin concentration (MCHC) values with ferritin levels in iron deficiency anemia patients in PKU Muhammadiyah Hospital of Yogyakarta.

***Research Methods:*** This study connects the mean corpuscular hemoglobin concentration (MCHC) values with ferritin levels in iron deficiency anemia patients in 50 samples. This type of study is observational analytic. Retrieval of data used by a cross sectional approach. After the data obtained from each of the variables, Spearman statistical test was then performed.

***Research Result:*** The results of this study found the prevalence of iron deficiency anemia is most men as much as 54%. Spearman statistical analysis results showed a significant relationship between the mean corpuscular hemoglobin concentration (MCHC) with ferritin levels with a value of  $p = 0.000$ , which means  $p < 0.05$ , so we get the relationship decreasing mean corpuscular hemoglobin concentration (MCHC) values with ferritin levels in iron deficiency anemia.

***Conclusion:*** Based on the research results can be concluded that there is a significant relationship between decreasing of mean corpuscular hemoglobin concentration (MCHC) values with ferritin levels in iron deficiency anemia patients. ( $p < 0.05$ ,  $p = 0.000$ ).

***Keywords:*** Mean Corpuscular Hemoglobin Concentration (MCHC), Ferritin Levels, Iron Deficiency Anemia.

**Hubungan Nilai *Mean Corpuscular Hemoglobin Concentration* (MCHC)  
dengan Kadar Feritin pada Anemia Defisiensi Besi  
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**INTISARI**

**Latar Belakang:** Anemia yang sering dijumpai adalah anemia defisiensi besi. Anemia defisiensi besi (ADB) dapat didiagnosis dengan melihat kadar feritin dan indeks eritrosit. Feritin merupakan indikator yang pasti untuk mendiagnosis defisiensi besi. *Mean Corpuscular Hemoglobin Concentration* (MCHC) adalah salah satu jenis indeks eritrosit yang harus diperhatikan dalam mendiagnosis ADB, namun nilai *MCHC* sering dikatakan tidak memberikan informasi klinik secara signifikan.

**Tujuan Penelitian:** Untuk mengetahui hubungan nilai *Mean Corpuscular Hemoglobin Concentration* (MCHC) dengan kadar feritin pada pasien ADB di RS PKU Muhammadiyah Yogyakarta.

**Metode Penelitian:** Penelitian ini menghubungkan nilai *Mean Corpuscular Hemoglobin Concentration* (MCHC) dengan kadar feritin pada pasien ADB dengan 50 sampel. Jenis penelitian ini adalah observasional analitik. Pengambilan data yang digunakan dengan menggunakan pendekatan *cross sectional*. Setelah data didapat dari masing-masing variabel, kemudian dilakukan uji statistik *Spearman*.

**Hasil Penelitian:** Hasil analisis uji statistik *Spearman* menunjukkan hubungan yang signifikan antara nilai *MCHC* dengan kadar feritin dengan nilai  $p = 0.000$  yang berarti  $p < 0.05$ , sehingga didapatkan hubungan penurunan nilai *MCHC* dengan kadar feritin pada anemia defisiensi besi.

**Kesimpulan:** Berdasarkan hasil penelitian dapat disimpulkan bahwa terdapat hubungan yang cukup signifikan antara penurunan nilai *MCHC* dengan kadar feritin pada pasien anemia defisiensi besi. ( $p < 0,05$  ;  $p = 0,000$ ).

**Kata Kunci:** *Mean Corpuscular Hemoglobin Concentration* (MCHC), Kadar Feritin, Anemia Defisiensi Besi.