

## ABSTRAK

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### **KORELASI KADAR *SERUM IRON* DENGAN HEMOGLOBIN PADA PASIEN GAGAL GINJAL KRONIK LEVEL V DI RSUD Dr. HARJONO S PONOROGO**

xv + 56 Halaman + 9 Tabel + 10 Lampiran

Gagal ginjal kronik (GGK) tidak hanya berkaitan dengan penurunan fungsi ginjal yang bersifat permanen, tetapi juga dapat memengaruhi secara signifikan kualitas hidup pasien, salah satunya adalah anemia. Kekurangan zat besi merupakan salah satu penyebab utama anemia pada pasien GGK, sering kali disebabkan oleh penurunan hormon eritropoetin, kehilangan darah selama hemodialisis, serta konsumsi zat besi yang tidak adekuat. Dalam penelitian ini, saya ingin mengetahui apakah terdapat kaitan antara kadar serum besi (iron dalam darah) dengan kadar hemoglobin pada pasien GGK stadium V yang menjalani hemodialisis secara rutin di RSUD Dr. Harjono S. Ponorogo.

Data sekunder dari Sistem Informasi Laboratorium (LIS) rumah sakit digunakan dalam penelitian deskriptif analitik kuantitatif. Sebanyak 24 pasien GGK yang menjalani hemodialisis dua kali seminggu selama periode Juli–Desember 2024 menjadi sampel penelitian. Pemeriksaan kadar *serum iron* diukur menggunakan metode ferrozine, dan kadar hemoglobin diukur dengan metode kolorimetri.

Hasil memperlihatkan jika seluruh penderita mengalami anemia. Meskipun kadar *serum iron* sebagian besar berada dalam rentang normal, kadar hemoglobin tetap rendah. Analisis statistik memperlihatkan adanya korelasi sedang antara kadar serum iron dan hemoglobin, dengan nilai signifikansi yang bermakna ( $p < 0,05$ ) pada kedua kali pemeriksaan.

**Kesimpulan:** Terdapat kaitan yang signifikan antara kadar serum besi dan hemoglobin pada penderita GGK stadium V, yang memperlihatkan jika pemantauan status zat besi dapat berkontribusi penting dalam penanganan anemia pada penderita dengan gagal ginjal kronik.

**Kata kunci:** Penyakit gagal ginjal kronik (GGK) stadium V, serum iron, hemoglobin, anemia, hemodialisis

Daftar bacaan : 9 buku + 26 artikel ( 2017 – 2024)

## **ABSTRACT**

Yulia Hermawati

### ***CORRELATION BETWEEN SERUM IRON LEVELS AND HEMOGLOBIN IN STAGE V CHRONIC KIDNEY DISEASE PATIENTS AT RSUD Dr. HARJONO S. PONOROGO***

*xv + 56 Pages + 9 Tables + 10 Appendices*

*Chronic kidney disease (CKD) is not only related to a permanent decline in kidney function but can also significantly affect the quality of life of patients, one of which is anemia. Iron deficiency is one of the main causes of anemia in CKD patients, often due to decreased erythropoietin hormone, blood loss during hemodialysis, and inadequate iron intake. In this study, I want to determine whether there is a correlation between serum iron levels and hemoglobin levels in stage V CKD patients undergoing routine hemodialysis at RSUD Dr. Harjono S. Ponorogo.*

*Secondary data from the Laboratory Information System (LIS) of the hospital was used in a quantitative descriptive analytical study. As many as 24 CKD patients undergoing hemodialysis twice a week during the period of July–December 2024 became the research sample. The serum iron levels were measured using the ferrozine method, and the hemoglobin levels were measured using the colorimetric method.*

*The results show that all patients have anemia. Although serum iron levels were mostly within the normal range, hemoglobin levels remained low. Statistical analysis shows a moderate correlation between serum iron levels and hemoglobin, with a significant value ( $p < 0.05$ ) in both examinations.*

*Conclusion: There is a significant relationship between serum iron levels and hemoglobin in stage V CKD patients, indicating that monitoring iron status can play an important role in managing anemia in patients with chronic kidney disease.*

*Keywords: Stage V chronic kidney disease (CKD), serum iron, hemoglobin, anemia, hemodialysis*

*References: 9 books + 26 articles (2017–2024)*