

**HUBUNGAN ANTARA JUMLAH *PACKED RED CELL* DAN KADAR FE
SERUM PASIEN PENYAKIT GINJAL KRONIS DENGAN HEMODIALISIS
DI RSUD MARGONO SOEKARJO**

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ABSTRAK

Latar Belakang: Penyakit ginjal kronik (PGK) adalah proses penyakit mengakibatkan penurunan fungsi ginjal yang progresif. Pada stadium akhir, pasien memerlukan terapi pengganti ginjal seperti hemodialisis (HD). Pasien PGK dengan HD banyak ditemukan anemis, sementara kadar Hb yang terlalu rendah (<7 g/dL) menjadikan fungsi hemodinamik pasien tidak stabil, sehingga terlalu berisiko untuk dilakukan HD. Transfusi komponen *Packed Red Cell* (PRC) adalah salah satu terapi manajemen anemia dengan efek samping peningkatan kadar besi serum. Tubuh tidak memiliki sistem pengeluaran besi secara aktif, sehingga seiring bertambahnya jumlah PRC yang ditransfusikan akan terjadi akumulasi besi dalam darah.

Tujuan: Penelitian ini bertujuan untuk mengetahui hubungan antara jumlah *Packed Red Cell* (PRC) dan kadar besi serum pada pasien hemodialisis dengan transfusi berulang di RSUD Margono Soekarjo.

Metode: Desain penelitian ini adalah analitik observasional dengan pendekatan *cross sectional*. Metode pengambilan sampel menggunakan *probability sampling*. Hubungan antar variabel dianalisis dengan uji Pearson.

Hasil: Sampel adalah 45 pasien PGK yang melakukan tranfusi berulang. Hasil penelitian menunjukkan bahwa hubungan antara jumlah PRC dan kadar zat besi serum tidak signifikan ($p=0.190$). Rerata kadar besi pada penelitian ini adalah 79.13 ± 38.79 $\mu\text{g/dL}$.

Kesimpulan: Tidak terdapat hubungan antara jumlah PRC dengan kadar besi serum pada pasien PGK hemodialisis dengan transfusi berulang di RSUD Prof. Dr. Margono Soekarjo.

Kata kunci: Penyakit ginjal kronis, hemodialisis, besi serum, transfusi

**RELATIONSHIP BETWEEN THE AMOUNT OF PACKED RED CELL AND
SERUM FE LEVELS OF CHRONIC KIDNEY DISEASE PATIENTS WITH
HEMODIALYSIS IN MARGONO SOEKARJO REGIONAL HOSPITAL**

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ABSTRACT

Background: Chronic kidney disease (CKD) is a disease which process resulted in progressive decline of kidney function. In its final stage, patients need kidney replacement therapy such as hemodialysis (HD). Many CKD patients with HD are found anemic, yet low Hb levels (<7 g / dL) can make the hemodynamic function of the patient unstable, thus HD would be too risky to do. Packed Red Cell (PRC) transfusion is one of the anemia management therapies with side effects such as increasing serum iron levels. The body does not have an active iron removal system, so as the amount of PRC that is transfused increases there will be an accumulation of iron in the blood.

Objective: This study aimed to determine the relationship between the number of Packed Red Cells (PRC) and serum iron levels in hemodialysis patients with repeated transfusions in Margono Soekarjo Regional Hospital.

Methods: The design of the study was observational analytic with cross sectional findings. The sampling method uses probability sampling. The relationship between variables was analyzed by the Pearson test.

Results: The sample is 45 CKD patients who have had repeated transfusions. The results show that the relationship between the amount of PRC and serum iron levels is not significant ($p = 0.190$). The mean level of serum iron in this study is 79.13 ± 38.79 $\mu\text{g} / \text{dL}$.

Conclusion: There are no relationship between the number of PRC and serum iron levels in hemodialised CKD patients with repeated transfusions in Margono Soekarjo Regional Hospital.

Keywords: Chronic kidney disease, hemodialysis, serum iron, transfusion