

## **ABSTRACT**

**Background :** *Chronic Renal Failure (CRF) is a serious global public health problem that requires hemodialysis as a therapy for replacing the functions of the kidney. Decreases in erythropoietin production due to kidney damage can cause anemia and it requires EPO supply therapy. This study aims to determine the relation in EPO therapy frequency towards the iron status of chronic kidney failure patients who undergo hemodialysis.*

**Method :** *This research used an analytic observational research method through a cross-sectional approach with correlation test analysis. The number of samples in this research were 30 patient medical records. The independent variable of research was the EPO supply frequency and the dependent variable was the level of iron status. After the data was obtained, then it was analyzed by the Spearman correlation test.*

**Result :** *The results showed that the patient with chronic kidney disease distributed into Fe levels normal 20% and decreased by 80%. Whereas the TIBC level increased by 6.7%, normal by 43.3%, and decreased by 50%. Furthermore, the SAT level increased by 6.7%, normal by 23.3%, and decreased by 70%. The analysis results of Spearman test obtained significance value  $p = 0.020$  to Fe, significance value  $p = 0.257$  to TIBC, and significance value  $p = 0.010$  to SAT.*

**Conclusion :** *Based on these results, it can be concluded that there are significant correlations between the frequency of EPO therapy with Fe, SAT but not with TIBC.*

**Keywords :** *Fe, TIBC, SAT, frequency of EPO therapy, hemodialysis, chronic renal failure*

## INTISARI

**Latar Belakang:** Gagal ginjal kronik (GGK) merupakan masalah kesehatan masyarakat global serius yang memerlukan terapi pengganti fungsi ginjal berupa hemodialisa. Adanya penurunan produksi eritropoietin (EPO) akibat kerusakan ginjal menyebabkan kondisi anemia dan membutuhkan terapi pemberian EPO. Penelitian ini bertujuan untuk mengetahui adanya hubungan antara frekuensi terhadap status besi pada pasien gagal ginjal kronis yang menjalani hemodialisa.

**Metode Penelitian:** Penelitian menggunakan metode observasional analitik melalui pendekatan *cross sectional* dengan analisis uji korelasi. Jumlah sampel pada penelitian ini adalah 30 rekam medis pasien. Variabel bebas penelitian adalah frekuensi pemberian EPO dan variabel terikatnya adalah kadar status besi. Setelah data didapat dari masing-masing variabel, dilakukan analisis data dengan uji korelasi *Spearman test*.

**Hasil Penelitian:** Hasil penelitian didapatkan pasien gagal ginjal kronis dengan kadar Fe normal 20%, dan menurun 80%. Sedangkan pada kadar TIBC meningkat 6,7%, normal 43,3%, dan menurun 50%. Selanjutnya pada kadar SAT meningkat 6,7%, normal 23,3%, dan menurun 70%. Hasil analisis dengan uji *Spearman* didapatkan nilai signifikansi  $p = 0,020$  terhadap Fe, nilai signifikansi  $p = 0,257$  terhadap TIBC, dan nilai signifikansi  $p = 0,010$  terhadap SAT.

**Kesimpulan:** Terdapat hubungan yang signifikan antara frekuensi pemberian EPO terhadap Fe dan SAT namun tidak terdapat hubungan yang signifikan terhadap TIBC.

**Kata kunci:** Fe, TIBC, SAT, frekuensi pemberian EPO, hemodialisa, gagal ginjal kronis