

**PENGARUH VARIASI KONSENTRASI ERITROSIT
PADA PASIEN GAGAL GINJAL KRONIK TERHADAP
HASIL PEMERIKSAAN *CROSSMATCH* METODE TABUNG**

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ABSTRAK

Pasien penyakit ginjal kronik (PGK) yang menjalani hemodialisa memiliki resiko tinggi mengalami anemia karena ginjal tidak cukup untuk memproduksi hormon *eritropoetin* yang berfungsi dalam mengatur produksi sel darah merah di sumsum tulang belakang. Selain harus melakukan hemodialisa tetapi harus juga melakukan tindakan transfusi darah. Salah satu pemeriksaan yang harus dilakukan sebelum darah ditransfusikan yaitu pemeriksaan *crossmatch*. Pasien PGK yang telah menjalani transfusi berulang besar kemungkinan membentuk alloantibodi. Salah satu faktor yang mempengaruhi reaksi antigen dan antibodi yaitu konsentrasi suspensi sel darah merah. Tujuan penelitian ini untuk mengetahui gambaran dan pengaruh variasi konsentrasi eritrosit 5%, 3%, dan 1% pada penderita gagal ginjal kronik terhadap hasil pemeriksaan *crossmatch* metode tabung. Jenis penelitian yang dilakukan dalam penelitian ini yaitu *quasy experimental*. Dalam penelitian ini menggunakan 9 sampel pasien gagal ginjal kronik bergolongan darah A+ yang terdiri dari 5 pasien laki-laki (56%) dan 4 pasien perempuan (44%) dan kemudian dilakukan pembuatan suspensi dengan konsentrasi eritrosit 5%, 3%, dan 1%, lalu dilakukan pemeriksaan *crossmatch* metode tabung. Hasil data penelitian menunjukkan semua data kompatibel (100%). Hasil uji *Kruskal Wallis* diperoleh nilai signifikansi $1.000 > P (0,05)$ sehingga dapat disimpulkan tidak terdapat pengaruh yang bermakna pada variasi konsentrasi eritrosit dengan pemeriksaan *crossmatch* metode tabung sampel pasien gagal ginjal kronik.

Kata kunci : *Crossmatch*, Konsentrasi Eritrosit, Gagal Ginjal Kronik.

**THE EFFECT OF VARIATIONS IN ERYTHROCYTE CONCENTRATION
IN PATIENTS WITH CHRONIC RENAL FAILURE AGAINST
FOR RESULT CROSSMATCH EXAMINATION TUBE METHOD**

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ABSTRACT

Patients with chronic kidney disease (CKD) who undergo hemodialysis have a high risk of anemia because the kidneys do not produce enough erythropoietin hormone which functions in regulating the production of red blood cells in the spinal cord. In addition to having to do hemodialysis but must also do blood transfusions. One of the tests that must be done before blood is transfused is crossmatch examination. CKD patients who have undergone repeated transfusions are more likely to form alloantibodies. One of the factors that affect the reaction of antigens and antibodies is the concentration of red blood cell suspension. The purpose of this study was to determine the description and effect of variations in erythrocyte concentrations of 5%, 3%, and 1% in patients with chronic renal failure on the results of the tube method crossmatch examination. The type of research conducted in this study is quasy experimental. In this study using 9 samples of chronic renal failure patients with blood type A + consisting of 5 male patients (56%) and 4 female patients (44%) and then made a suspension with erythrocyte concentrations of 5%, 3%, and 1%, then carried out crossmatch examination tube method. The results of the research data showed that all data were compatible (100%). The results of the Kruskal Wallis test obtained a significance value of $1,000 > P (0.05)$ so that it can be concluded that there is no significant influence on variations in erythrocyte concentration by crossmatch examination of the sample tube method of chronic renal failure patients.

Keyword : *Crossmatch, Erythrocyte Concentration, Chronic Renal Failure.*