

ABSTRAK

HUBUNGAN KADAR KREATININ DENGAN *Estimated Glomerular Filtration Rate (eGFR)* PADA PASIEN DIABETES MELITUS TIPE 2 DI PROLANIS dr. JANI TEDJO KABUPATEN SINTANG

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Diabetes Melitus tipe 2 merupakan penyakit metabolik kronis yang dapat menyebabkan komplikasi ginjal berupa nefropati diabetik. Penilaian fungsi ginjal dilakukan melalui kadar kreatinin serum dan nilai estimated Glomerular Filtration Rate (eGFR). Peningkatan kadar kreatinin umumnya menunjukkan penurunan kemampuan filtrasi ginjal yang ditandai oleh menurunnya nilai eGFR. Kondisi ini dipengaruhi hiperglikemia kronis yang memicu glikosilasi non-enzimatik, stres oksidatif, dan inflamasi sehingga menyebabkan kerusakan glomerulus. Penelitian ini bertujuan mengetahui hubungan kadar kreatinin dengan nilai estimated Glomerular Filtration Rate (eGFR) pada pasien Diabetes Melitus tipe 2 di Prolanis Fasilitas Kesehatan dr. Jani Tedjo Kabupaten Sintang.

Penelitian dilakukan pada 20 Januari 2026 menggunakan desain analitik dengan pendekatan cross sectional. Sampel penelitian adalah pasien Diabetes Melitus tipe 2 peserta Prolanis yang dipilih menggunakan teknik purposive sampling sesuai kriteria inklusi dan eksklusi. Pemeriksaan kadar kreatinin serum dilakukan dengan metode Jaffe menggunakan kimia analyzer, sedangkan nilai eGFR dihitung menggunakan rumus Chronic Kidney Disease Epidemiology Collaboration (CKD-EPI).

Analisis data menggunakan uji Shapiro-Wilk dan dilanjutkan uji korelasi Spearman. Hasil menunjukkan koefisien korelasi (r_s) -0,870 dengan p-value 0,000 ($p < 0,05$), sehingga terdapat hubungan negatif yang kuat dan signifikan antara kadar kreatinin dan nilai eGFR, yang mencerminkan penurunan fungsi filtrasi ginjal.

Kata kunci : Diabetes Melitus tipe 2, *estimated Glomerular Filtration Rate* (eGFR), Kreatinin, Fungsi Ginjal.

ABSTRACT

THE RELATIONSHIP BETWEEN CREATININE LEVELS WITH ESTIMATED GLOMERULAR FILTRATION RATE (EGFR) IN PATIENTS WITH TYPE 2 DIABETES MELLITUS IN THE PROLANIS DR. JANI TEDJO, SINTANG REGENCY

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Type 2 diabetes mellitus is a chronic metabolic disease that can cause kidney complications in the form of diabetic nephropathy. Kidney function is assessed through serum creatinine levels and estimated glomerular filtration rate (eGFR). Increased creatinine levels generally indicate a decrease in renal filtration capacity, characterized by a decrease in eGFR. This condition is influenced by chronic hyperglycemia, which triggers non-enzymatic glycosylation, oxidative stress, and inflammation, resulting in glomerular damage. This study aims to determine the relationship between creatinine levels and estimated glomerular filtration rate (eGFR) in type 2 diabetes mellitus patients at the Prolanis Dr. Jani Tedjo Health Facility in Sintang Regency.

The study was conducted on January 20, 2026, using an analytical design with a cross-sectional approach. The study sample consisted of type 2 diabetes mellitus patients participating in the Prolanis program, selected using a purposive sampling technique based on inclusion and exclusion criteria. Serum creatinine levels were measured using the Jaffe method using a chemistry analyzer, while eGFR values were calculated using the Chronic Kidney Disease Epidemiology Collaboration (CKD-EPI) formula.

Data analysis used the Shapiro-Wilk test and continued with the Spearman correlation test. The results show a correlation coefficient (r_s) -0.870 with a p-value of 0.000 ($p < 0.05$), so there is a strong and significant negative relationship between creatinine levels and eGFR values, which reflects a decrease in kidney filtration function.

Keywords : Creatinine, *estimated Glomerular Filtration Rate* (eGFR), Kidney Function, Type 2 Diabetes Mellitus.