

## ABSTRAK

Nabilah Priandini Salsabil

KORELASI ANTARA KADAR UACR (*URINE ALBUMIN TO CREATININE RATIO*) DENGAN NILAI eGFR (*ESTIMATED GLOMERULAR FILTRATION RATE*) PADA PASIEN DIABETES MELITUS TIPE 2

1x + 123 halaman + 14 tabel + 17 lampiran

Diabetes melitus tipe 2 merupakan penyakit kronis yang berisiko menimbulkan komplikasi mikrovaskular, salah satunya nefropati diabetik yang dapat mengganggu fungsi ginjal. Monitoring dini fungsi ginjal penting dilakukan menggunakan parameter seperti rasio albumin-kreatinin urin (UACR) dan estimasi laju filtrasi glomerulus (eGFR). Penelitian ini bertujuan untuk menganalisis korelasi kadar UACR dan nilai eGFR pada pasien DM tipe 2 di Puskesmas Pucang Sewu Surabaya.

Jenis penelitian yang digunakan yaitu observasional dengan pendekatan *cross-sectional*. Penelitian dilaksanakan pada 2 April – 2 Mei 2025 di Puskesmas Pucang Sewu Surabaya yang melibatkan 30 pasien diabetes melitus tipe 2 yang tergabung dalam Program Pengelolaan Penyakit Kronis (Prolanis). Pemeriksaan kadar UACR dan nilai eGFR dilakukan menggunakan alat TMS 50i dengan metode *Latex-Immunoturbidimetric* dan enzimatik .

Berdasarkan penelitian diperoleh kadar albumin urin dan kreatinin urin pada pasien DM tipe 2 menunjukkan nilai rata-rata masing-masing sebesar 19,7 mg/dL dan 0,14 g/dL, sedangkan rata-rata kadar kreatinin serum pasien DM tipe 2 menunjukkan nilai rata-rata 0,98 mg/dL. Hasil menunjukkan rerata kadar UACR pasien DM tipe 2 sebesar 154.3 mg/g Cre dengan kategori mikroalbuminuria dan rerata nilai eGFR sebesar 75.3 mL/menit/1,73 m<sup>2</sup> dengan kategori penurunan ringan. Hasil uji korelasi *spearman* antara kadar UACR dengan nilai eGFR didapatkan nilai signifikansi (*p-value*) = 0,0230 dan koefisien korelasi (*r*) = -0,415. Hasil penelitian menunjukkan terdapat korelasi dengan arah hubungan negatif berkekuatan sedang antara kadar UACR dengan nilai eGFR pada pasien diabetes melitus tipe 2, artinya semakin tinggi kadar UACR maka semakin rendah nilai eGFR.

Kata kunci : Diabetes mellitus tipe 2, UACR, eGFR, nefropati diabetik

## ABSTRACT

Nabilah Priandini Salsabil

THE CORRELATION BETWEEN *URINE ALBUMIN-TO-CREATININE RATIO* (UACR) AND *ESTIMATED GLOMERULAR FILTRATION RATE* (eGFR) IN TYPE 2 DIABETES MELLITUS PATIENTS

1x + 123 Pages + 14 Tables + 17 Appendices

*Type 2 diabetes mellitus is a chronic disease that poses a risk of microvascular complications, one of which is diabetic nephropathy, potentially impairing kidney function. Early monitoring of kidney function is crucial and can be carried out using parameters such as the urine albumin-to-creatinine ratio (UACR) and estimated glomerular filtration rate (eGFR). This study aims to analyze the correlation between UACR levels and eGFR values in patients with type 2 diabetes mellitus at Pucang Sewu Public Health Center, Surabaya.*

*This research employed an observational study with a cross-sectional approach. The study was conducted from April 2 to May 2, 2025, at Pucang Sewu Public Health Center, Surabaya, involving 30 patients with type 2 diabetes mellitus enrolled in the Chronic Disease Management Program. UACR and eGFR measurements were carried out using the TMS 50i device with the Latex-Immuno-turbidimetric and enzymatic methods, respectively.*

*The results showed that the average urinary albumin and urinary creatinine levels in type 2 diabetes patients were 19.7 mg/dL and 0.14 g/dL, respectively, while the average serum creatinine level was 0.98 mg/dL. The mean UACR was 154.3 mg/g Cre, categorized as microalbuminuria, and the mean eGFR was 75.3 mL/min/1.73 m<sup>2</sup>, indicating a mild decrease in kidney function. Spearman correlation test results showed a significance value of 0.0230 and a correlation coefficient of -0.415. These findings indicate a moderate negative correlation between UACR levels and eGFR values in patients with type 2 diabetes mellitus, meaning that higher UACR levels are associated with lower eGFR values.*

*Keywords : Type 2 diabetes mellitus, UACR, eGFR, diabetic nephropathy*