

## **ABSTRAK**

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**HUBUNGAN KADAR GLUKOSA DARAH, KADAR HbA1c DENGAN MIKROALBUMIN URINE PADA PASIEN PENDERITA DIABETES MELITUS TIPE 2 DI UPTD LABKESDA KAB. MAGETAN**  
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Diabetes melitus merupakan penyakit metabolik kronis yang ditandai oleh tingginya kadar glukosa dalam darah. Penderita diabetes melitus tipe 2 memiliki risiko tinggi mengalami komplikasi mikrovaskuler, salah satunya nefropati diabetik, yang ditandai dengan peningkatan kadar albumin urine dan dapat merusak ginjal. Untuk mendeteksi nefropati diabetik secara dini, penderita disarankan memeriksa glukosa darah, HbA1c, serta mikroalbumin urine. Penelitian ini bertujuan menganalisis hubungan kadar glukosa darah dan HbA1c dengan mikroalbumin urine pada pasien diabetes melitus tipe 2. Penelitian menggunakan desain analitik observasional dengan pendekatan cross sectional. Sampel terdiri dari 50 pasien diabetes melitus tipe 2 yang menjalani pemeriksaan laboratorium di UPTD Labkesda Kabupaten Magetan pada Januari–Maret 2025. Analisis data dilakukan memanfaatkan uji korelasi non parametrik (Spearman). Hasil penelitian memperlihatkan adanya hubungan sedang antara kadar glukosa darah dan mikroalbumin urine ( $r = 0,473$ ), serta antara HbA1c dan mikroalbumin urine ( $r = 0,483$ ) pada pasien diabetes melitus tipe 2.

Kata kunci: diabetes melitus tipe 2, glukosa darah, HbA1c, mikroalbuminuria, nefropati diabetik

## **ABSTRACT**

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THE RELATIONSHIP OF BLOOD GLUCOSE LEVELS, HbA1c LEVELS WITH URINE MICROALBUMIN IN PATIENTS WITH TYPE 2 DIABETES MELLITUS IN UPTD LABKESDA KAB. MAGETAN  
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*Diabetes mellitus is a chronic metabolic disease characterized by elevated blood glucose levels. Patients with type 2 diabetes mellitus are at high risk of developing microvascular complications, one of which is diabetic nephropathy. This condition is marked by increased urine albumin levels that can lead to kidney damage. Therefore, patients are advised to undergo blood glucose, HbA1c, and urine microalbumin tests for early detection of diabetic nephropathy. This study aimed to analyze the relationship between blood glucose and HbA1c levels with urine microalbumin in patients with type 2 diabetes mellitus. The research used an observational analytic design with a cross-sectional approach. The sample consisted of 50 type 2 diabetes mellitus patients who had laboratory tests at UPTD Labkesda, Magetan Regency, during January–March 2025. Data analysis was performed using a non-parametric correlation test (Spearman). The results showed a moderate correlation between blood glucose levels and urine microalbumin ( $r = 0.473$ ), as well as between HbA1c levels and urine microalbumin ( $r = 0.483$ ) in type 2 diabetes mellitus patients.*

*Keywords: type 2 diabetes mellitus, blood glucose, HbA1c, microalbuminuria, diabetic nephropathy*