

**POLITEKNIK KESEHATAN TANJUNGKARANG**  
**JURUSAN TEKNOLOGI LABORATORIUM MEDIS**  
**PROGRAM STUDI TEKNOLOGI LABORATORIUM MEDIS**  
**PRODI SARJANA TERAPAN**  
Skripsi, Juni 2024

Ari Warsito

**EVALUASI HASIL PEMERIKSAAN KADAR GLUKOSA DARAH PUASA  
MENGGUNAKAN *POINT OF CARE TEST* DENGAN *Clinical Chemistry Analyzer* DI LABORATORIUM RSUD SUKADANA**

xvi + 26 halaman, 3 tabel, 6 gambar, 15 lampiran

**ABSTRAK**

Pemeriksaan glukosa darah puasa dapat dilakukan dengan menggunakan alat POCT dan *Clinical Chemistry Analyzer*. Pemilihan alat pemeriksaan ini berdasarkan tujuan pemeriksaan Untuk tujuan skrining menggunakan POCT dengan sampel darah kapiler, waktu yang diperlukan lebih cepat bila dibandingkan dengan menggunakan alat *Clinical Chemistry Analyzer*. Namun demikian *gold standart* pemeriksaan glukosa darah adalah menggunakan *Clinical Chemistry Analyzer*. Tujuan penelitian ini untuk mengetahui perbedaan kadar glukosa darah puasa menggunakan POCT dengan *Clinical Chemistry Analyzer* di laboratorium RSUD Sukadana. Jenis penelitian ini adalah analitik dengan pendekatan *cross sectional*. Penelitian ini dilakukan di RSUD Sukadana pada bulan Januari sampai dengan Mei 2024. Responden penelitian berjumlah 37 orang. Analisa data yang digunakan adalah uji T Test berpasangan. Hasil penelitian didapatkan rata-rata kadar glukosa puasa menggunakan alat POCT adalah 144,57 mg/dL dengan kadar terendah 93 mg/dL dan kadar tertinggi 319 mg/dL, sedangkan kadar rata-rata glukosa puasa menggunakan alat *Clinical Chemistry Analyzer* adalah 136,41 mg/dL dengan kadar terendah 83 mg/dL dan kadar tertinggi 298 mg/dL. Hasil uji statistik terdapat perbedaan yang signifikan antara pemeriksaan kadar glukosa darah puasa menggunakan *Point Of Care Test* dan *Clinical Chemistry Analyzer* dengan *p value* 0,00 (*p* < 0,05).

Kata Kunci: Glukosa darah puasa, POCT, *Clinical Chemistry Analyzer*  
Daftar Bacaan: 16 (2010 – 2023)

**TANJUNGPINANG MINISTRY OF HEALTH POLYTECHNIC  
DEPARTMENT OF MEDICAL LABORATORY TECHNOLOGY  
MEDICAL LABORATORY TECHNOLOGY STUDY PROGRAM  
APPLIED GRADUATE PROGRAM**

*Undergraduate Thesis, June 2024*

Ari Warsito

**EVALUATION OF THE RESULTS OF EXAMINATION OF FASTING BLOOD GLUCOSE LEVELS USING POINT OF CARE TEST WITH CLINICAL CHEMISTRY ANALYZER IN THE RSUD SUKADANA LABORATORY**

*xvi + 26 pages, 3 tables, 6 picture, 15 attachments*

**ABSTRACT**

*Fasting blood glucose examination can be done using a POCT and Clinical Chemistry Analyzer. The selection of this examination tool is based on the purpose of the examination. For screening purposes using POCT with capillary blood samples, the time required is faster when compared to using the Clinical Chemistry Analyzer tool. However, the gold standard for checking blood glucose is using a Clinical Chemistry Analyzer. The aim of this study was to determine differences in fasting blood glucose levels using POCT with a Clinical Chemistry Analyzer in the Sukadana Regional Hospital laboratory. This type of research is analytical with a cross sectional approach. This research was conducted at Sukadana Regional Hospital from January to May 2024. There were 37 research respondents. The data analysis used was a paired T test. The research results showed that the average fasting glucose level using the POCT tool was 144.57 mg/dL with the lowest level being 93 mg/dL and the highest level being 319 mg/dL, while the average fasting glucose level using the Clinical Chemistry Analyzer tool was 136.41 mg/dL with the lowest level being 83 mg/dL and the highest level being 298 mg/dL. The statistical test results showed a significant difference between examining fasting blood glucose levels using the Point Of Care Test and Clinical Chemistry Analyzer with a p value of 0.00 ( $p < 0.05$ ).*

**Keywords:** *Fasting blood glucose, POCT, Clinical Chemistry Analyzer*

**Reading List:** *16 (2010 – 2023)*