

## ABSTRAK

### PERBEDAAN KADAR HEMOGLOBIN DENGAN MENGGUNAKAN METODE POCT DAN ALAT HEMATOLOGY ANALYZER PADA IBU HAMIL

Ni Luh Eka Wulandari<sup>1</sup>, Ni Luh Gede Puspita Yanti<sup>2</sup>, Lia Cahya Sari<sup>3</sup>  
<sup>1,2,3</sup> Program Studi Teknologi Laboratorium Medis Program Sarjana Terapan,  
STIKES Wira Medika Bali  
Email: weka47478@gmail.com

Anemia pada ibu hamil masih menjadi masalah kesehatan yang signifikan di Indonesia dan berisiko menimbulkan berbagai komplikasi maternal maupun perinatal, sehingga deteksi dini melalui pemeriksaan kadar hemoglobin merupakan bagian penting dari pelayanan antenatal care. Penelitian ini bertujuan untuk menganalisis perbedaan kadar hemoglobin antara metode *Point of Care Testing* (POCT) dan alat *hematology analyzer* pada ibu hamil trimester 3 di UPTD Puskesmas Tejakula I. Jenis penelitian ini adalah penelitian komparatif analitik dengan pendekatan *cross-sectional* pada 57 ibu hamil yang dipilih secara *accidental sampling*. Hasil penelitian menunjukkan kadar hemoglobin pada ibu hamil trimester 3 yang diperiksa menggunakan metode POCT menunjukkan nilai rata-rata sebesar 12,4 g/dL, dengan nilai minimum 9,0 g/dL dan nilai maksimum 15,2 g/dL. Kadar hemoglobin pada ibu hamil trimester 3 di UPTD Puskesmas Tejakula I yang diperiksa menggunakan alat *Hematology Analyzer* menunjukkan nilai rata-rata sebesar 12,1 g/dL, dengan nilai minimum 9,5 g/dL dan nilai maksimum 15,0 g/dL. Rerata hasil pemeriksaan dengan metode POCT lebih tinggi daripada dengan alat *hematology analyzer*. Hasil analisis perbedaan kadar hemoglobin menggunakan uji Independent t-test menunjukkan nilai p value sebesar 0,197 ( $p > 0,05$ ), yang menandakan bahwa tidak terdapat perbedaan kadar hemoglobin yang bermakna secara statistik antara pemeriksaan menggunakan metode POCT dan alat *Hematology Analyzer* pada ibu hamil trimester 3 di UPTD Puskesmas Tejakula I. Tidak adanya perbedaan yang signifikan dapat disebabkan karena kedua metode memiliki prinsip pengukuran hemoglobin yang relatif sebanding, serta kondisi fisiologis ibu hamil trimester 3 yang relatif stabil, sehingga variasi hasil pemeriksaan masih berada dalam batas yang dapat diterima secara klinis.

**Kata kunci:** *Hematology analyzer*, Ibu Hamil, Kadar hemoglobin, *Point of Care Testing* (POCT)

## ABSTRACT

### DIFFERENCES IN HEMOGLOBIN LEVELS USING POCT METHODS AND HEMATOLOGY ANALYZER IN PREGNANT WOMEN

Ni Luh Eka Wulandari<sup>1</sup>, Ni Luh Gede Puspita Yanti<sup>2</sup>, Lia Cahya Sari<sup>3</sup>  
<sup>1,2,3</sup> Applied Bachelor's Degree Program In Medical Laboratory Technology  
Wira Medika Bali Collage Of Health Sciences  
Email: weka47478@gmail.com

*Anemia in pregnant women remains a significant public health problem in Indonesia and is associated with various maternal and perinatal complications; therefore, early detection through hemoglobin level examination is an essential component of antenatal care services. This study aimed to analyze differences in hemoglobin levels between the Point of Care Testing (POCT) method and a hematology analyzer in third-trimester pregnant women at UPTD Puskesmas Tejakula I. This research employed a comparative analytic design with a cross-sectional approach involving 57 pregnant women selected through accidental sampling. The results showed that hemoglobin levels measured using the POCT method in third-trimester pregnant women had a mean value of 12.4 g/dL, with a minimum of 9.0 g/dL and a maximum of 15.2 g/dL. Meanwhile, hemoglobin levels measured using a hematology analyzer showed a mean value of 12.1 g/dL, with a minimum of 9.5 g/dL and a maximum of 15.0 g/dL. The mean hemoglobin level obtained using the POCT method was higher than that measured using the hematology analyzer. The analysis of differences in hemoglobin levels using the Independent t-test yielded a p-value of 0.197 ( $p > 0.05$ ), indicating that there was no statistically significant difference in hemoglobin levels between measurements obtained using the POCT method and the hematology analyzer in third-trimester pregnant women at UPTD Puskesmas Tejakula I. No statistically significant difference was observed, which is presumably due to the relatively comparable principles of hemoglobin measurement employed by both methods, as well as the relatively stable physiological condition of third-trimester pregnant women, resulting in measurement variations that remain within clinically acceptable limits.*

**Keywords:** Hematology analyzer; Hemoglobin level; Point of Care Testing (POCT); Pregnant Women