

INTISARI

Estu Sami Asih¹, dr. M. I. Diah Pramudianti, Sp.PK (K)., M.Sc², dr. Lucia Sincu Gunawan, M.Kes³, 2017. Perbandingan Hasil Pemeriksaan Hemoglobin Metode *Azidemethemoglobin* dan *Cyanide-free*. Program Studi D-IV Analisis Kesehatan Fakultas Ilmu Kesehatan Universitas Setia Budi¹, Instalasi Patologi Klinik RSUD dr. Moewardi². Dosen Universitas Setia Budi Surakarta³.

Hemoglobin (Hb) adalah komponen utama sel darah merah atau eritrosit yang terdiri dari *heme* dan *globin*. Pemeriksaan Hb otomatis dapat dilakukan diantaranya dengan metode *AzidemetHb* pada alat *Point Of Care Testing (POCT)* dan metode *Cyanide-free* pada alat *Hematology Analyzer*. Penelitian untuk mengetahui perbedaan hasil pemeriksaan Hb metode *AzidemetHb* dan *Cyanide-free*.

Penelitian bersifat observasi analitik *cross sectional*, dilakukan pada 78 sampel menggunakan alat *Quick Chek* dan *Cell Dyn Ruby* di Instalasi Patologi Klinik Rumah Sakit Umum Daerah (RSUD) dr. Moewardi di Surakarta pada bulan Mei - Juni 2017, digunakan uji perbedaan *Independent Sample T-Test* dan *Paired Sample T-Test* dengan signifikansi 0,05 dan interval kepercayaan (IK) 95%.

Karakteristik subjek penelitian *mean ± Standard Deviation (SD)* umur $51,6 \pm 12,89$ tahun, perempuan 50 (64,1 %), laki-laki 28 (35,9 %). Hasil *mean ± SD* kadar Hb metode *AzidemetHb* (darah kapiler), *Cyanide-free* (darah vena), dan *Azidemethb* (darah vena) adalah $11,75 \pm 1,65$ g/dl, $11,57 \pm 1,77$ g/dl, dan $11,43 \pm 1,65$ g/dl.

Tidak ada perbedaan yang signifikan ($p = 0,51$) hasil pemeriksaan Hb metode *AzidemetHb* (darah kapiler) dan *Cyanide-free* (darah vena). Ada perbedaan yang signifikan ($p = 0,01$) hasil pemeriksaan Hb metode *Azidemethb* (darah vena) dan *Cyanide-free* (darah vena). Metode *AzidemetHb* disarankan hanya digunakan untuk sampel darah kapiler, perlu penelitian lebih lanjut dengan metode dan jenis sampel yang lain.

Kata kunci : *Hb, metode AzidemetHb, metode Cyanide-free*

ABSTRACT

Estu Sami Asih¹, dr. M. I. Diah Pramudianti, Sp.PK (K), M.Sc², dr. Lucia Sincu Gunawan, M.Kes³, 2017. The Comparison of Hemoglobin Examination Results Using Azidemethemoglobin and Cyanide-free Methods. The Study Program of Four-Year Diploma (D-IV) in Medical Laboratory Technology. The Faculty of Health Sciences. Setia Budi University¹. Clinical Pathology Installation of dr. Regional Public (RSUD) of dr. Moewardi². Lecturer at Setia Budi University, Surakarta³.

Hemoglobin (Hb) is the main component of red blood cells or erythrocyte which comes from heme and globin. Hb examination can be automatically done using AzidemethHb method on Point of Care Testing (POCT) device and Cyanide-free method on Hematology Analyzer. This study aims at investigating the difference of Hb examination results using AzidemethHb and Cyanide-free methods.

The research belongs to analytical cross sectional observation carried to 78 samples using Quick Check and Cell Dyn Ruby device in Clinical Pathology Installation of Regional Public Hospital (RSUD) of dr. Moewardi in Surakarta from May to June 2017, Independent Sample T-Test and Paired Sample T-Test were carried out with significance level 0.05 and 95 % confidence interval (CI)

The characteristics of research subject indicated that the mean \pm SD age was $51,6 \pm 12.89$ years, including 50 (64.1 %) female and 28 (35.9 %) male. The mean \pm SD of Hb level using AzidemethHb (capillary blood), Cyanide-free (venous blood), and AzidemethHb (venous blood) methods are 11.75 ± 1.65 g/dl, 11.57 ± 1.77 g/dl, and 11.43 ± 1.65 g/dl.

There is no significant difference ($p = 0.51$) of Hb examination result using Azidemethb (capillary blood) and Cyanide-free (venous blood) methods. There is significant difference ($p = 0,01$) of Hb examination result using AzidemethHb (venous blood) and Cyanide-free (venous blood) methods. It is suggested that AzidemethHb method is only used for capillary blood. Further research using other method and sample type is required.

Keywords : *Hb, AzidemethHb method, Cyanide-free method*