

PERBEDAAN NILAI HEMATOKRIT DARAH KAPILER MENGGUNAKAN HEMATOLOGI ANALIZER DENGAN MANUAL MIKROHEMATOKRIT

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ABSTRAK

Hematokrit dapat diukur dengan teknik makro atau mikrohematokrit, dan otomatis (*hematology analyzer*). Metode mikrohematokrit teknik yang cepat dan sederhana, namun pemusingan harus dikontrol agar sentrifugalnya optimal, dan tabung harus diletakkan dengan hati-hati. Pemeriksaan nilai hematokrit di Puskesmas Ngaringan Kabupaten Grobogan menggunakan *hematology analyzer*, namun pemeriksaan secara manual menggunakan sampel darah kapiler masih dilakukan. Hal ini disebabkan adanya kesulitan pengambilan darah vena pada pasien anak-anak, alat sedang dikalibrasi atau keterlambatan pengiriman reagen. Hal ini menjadi latar belakang penelitian yang bertujuan untuk mengetahui perbedaan nilai hematokrit darah kapiler menggunakan hematologi analizer mikrokapiler dengan manual mikrohematokrit. Jenis penelitian analitik dengan sampel penelitian 48 pasien di Laboratorium Ngaringan Kabupaten Grobogan bulan Juli - Agustus 2018. Setiap pasien mendapat perlakuan dua kali tusukan untuk mendapatkan darah kapiler, dan dua kali pembacaan nilai hematokrit. Darah dalam mikrokapiler diperiksa secara manual dan hematologi analizer. Rerata nilai hematokrit hematologi analiser pada pasien anak, laki-laki dan perempuan dewasa 34,13%, 42,73%, dan 36,30%. Rerata nilai hematokrit manual mikroheamatokrit anak-anak, dewasa laki-laki, dan dewasa perempuan 37,50%, 46,75%, dan 39,81%. Hasil uji beda diperoleh nilai hematokrit darah kapiler menggunakan manual mikrohematokrit lebih tinggi dari hematologi analizer.

Kata kunci : hematokrit, manual mikrohematokrit, *hematology analyzer*

THE DIFFERENCE OF HEMATOCRIT VALUE IN CAPILLARY BLOOD USING HEMATOLOGY ANALYZER WITH MANUAL MICROHEMATOCRIT

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ABSTRACT

Hematocrit could be measured by macro or microhematocrit, and automatic technique (hematology analyzer). The microhematocrit method is fast and simple technique, but the centering must be controlled so that the centrifugal is optimal, and the tube must be placed carefully. An examination of hematocrit value at Puskesmas Ngaringan Kabupaten Grobogan is using a hematology analyzer, but manual examination uses capillary blood sample was still done. This matter is due to the difficulty of taking venous blood in children patients, the tool was being calibrated or delays in sending reagent. This matter become research background which aims to know the difference in value of capillary blood hematocrit on children, men and women, using a hematology microcapillary analyzer with microhematocrit manual. The research type is analytic with research sample of 48 patients in the Ngaringan Laboratory of Grobogan District on July - August 2018. Each patient received treatment of two punctures to get capillary blood, and two readings of hematocrit values. Blood in microcapillary is checked manually and hematology analyzer. The average hematocrit value of hematology analyzer on children patients, men and women was 34,13%, 42,73%, and 36,30%. Manual hematocrit value on children patients was averaged 37,50%. The average hematocrit value of microheamatocrit manual for children, men and women was 37,50%, 46,75%, average 39,81%. The result of different test is statistically concluded that there was significant difference in hematocrit value of capillary blood using hematology analyzer with manual microhematocrit.

Keywords: hematocrit, manual microhematocrit, hematology analyzer