

ANALISIS HASIL *QUALITY CONTROL* PEMERIKSAAN DARAH RUTIN  
MENGUNAKAN *HEMATOLOGY ANALYZER SYSMEX XN-350* DI RSUD  
SITI FATIMAH PROVINSI SUMATERA SELATAN

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**ABSTRAK**

**Latar Belakang:** *Quality Control* merupakan proses yang dilakukan untuk mengevaluasi pengujian dan memastikan bahwa sistem mutu berjalan baik dengan tujuan menjamin hasil pemeriksaan laboratorium, meminimalkan penyimpangan serta mengetahui sumber dari kesalahan sehingga diperoleh hasil pemeriksaan yang tepat dan dapat dipercaya.

**Tujuan:** mengetahui hasil *quality control* pemeriksaan darah rutin menggunakan *hematology analyzer XN-350* di RSUD Siti Fatimah Provinsi Sumatera Selatan.

**Metode:** Penelitian observasional analitik, *cross sectional*. Penelitian dilaksanakan pada bulan Desember 2022. Populasi penelitian adalah data QC *hematology analyzer XN-350*, berjumlah 450 data dalam satu bulan, dianalisis menggunakan rumus *statistical quality control*.

**Hasil:** QC *low level* parameter Hemoglobin CV 1,4%, (d%) 1,6%, sigma 4,9, Eritrosit CV 1,29%, (d%) 0,11%, sigma 4,57, Leukosit CV 3,14%, (d%) 0,36%, sigma 4,66, Hematokrit CV 1,1%, (d%) 0,30%, sigma 5,1, Trombosit CV 2,5%, (d%) 10,4%, sigma 5,8. QC *normal level* parameter Hemoglobin CV 0,8%, (d%) 1,5%, sigma 7,2, Eritrosit CV 0,61%, (d%) 0,79%, sigma 8,56, Leukosit CV 1,97%, (d%) 0,48%, sigma 7,38, Hematokrit CV 0,6%, (d%) 0,3%, sigma 10,1, Trombosit CV 2,2%, (d%) 7,2%, sigma 8,0. QC *high level* parameter Hemoglobin CV 0,7%, (d%) 2,7%, sigma 5,9, Eritrosit CV 0,75%, (d%) 1,17%, sigma 6,44, Leukosit CV 1,20%, (d%) 0,30%, sigma 12,24, Hematokrit CV 0,6%, (d%) 1,3%, sigma 7,4, Trombosit CV 1,4%, (d%) 7,2 %, sigma 12,9.

**Kesimpulan:** Hasil QC *low level*, *normal level* dan *high level* parameter eritrosit, leukosit, hematokrit mendapatkan presisi, akurasi tinggi dan *six sigma level good performance-world class performance*. Sedangkan parameter hemoglobin dan trombosit mendapatkan presisi tinggi, akurasi rendah dan *six sigma level good performance-world class performance*.

**Kata Kunci:** *quality control*, *hematology analyzer*, darah rutin

ANALYSIS OF QUALITY CONTROL RESULTS IN ROUTINE BLOOD  
EXAMINATION USING HEMATOLOGY ANALYZER SYSMEX XN-350 AT  
SITI FATIMAH HOSPITAL, SOUTH SUMATERA PROVINCE

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**ABSTRACT**

**Background:** Quality Control is a process carried out to evaluate testing and ensure that the quality system is running well with the aim of guaranteeing laboratory examination results, minimizing deviations and knowing the source of errors so as to obtain precise and reliable examination results..

**Objective:** to found out the quality control results of routine blood tests using the XN-350 hematology analyzer at Siti Fatimah Hospital, South Sumatera Province.

**Method:** Analytical observational research, cross sectional. The study was conducted in December 2022. The study population was XN-350 hematology analyzer QC data, totaling 450 data in one month, analyzed using the quality control statistical formula..

**Results:** QC low level parameters Hemoglobin CV 1.4%, (d%) 1.6%, sigma 4.9, Erythrocytes CV 1.29%, (d%) 0.11%, sigma 4.57, Leukocytes CV 3.14%, (d%) 0.36%, sigma 4.66, Hematocrit CV 1.1%, (d%) 0.30%, sigma 5.1, Platelets CV 2.5%, (d%) 10.4%, sigma 5.8. Normal QC parameter level Hemoglobin CV 0.8%, (d%) 1.5%, sigma 7.2, Erythrocytes CV 0.61%, (d%) 0.79%, sigma 8.56, Leukocytes CV 1, 97%, (d%) 0.48%, sigma 7.38, Hematocrit CV 0.6%, (d%) 0.3%, sigma 10.1, Platelets CV 2.2%, (d%) 7.2%, sigma 8.0. QC high level parameters Hemoglobin CV 0.7%, (d%) 2.7%, sigma 5.9, Erythrocytes CV 0.75%, (d%) 1.17%, sigma 6.44, Leukocytes CV 1, 20%, (d%) 0.30%, sigma 12.24, Hematocrit CV 0.6%, (d%) 1.3%, sigma 7.4, Platelets CV 1.4%, (d%) 7.2%, sigma 12.9.

**Conclusion:** On the results of low level QC, normal level and high level parameters of erythrocytes, leukocytes, hematocrit got precision, high accuracy and six sigma level good performance-world class performance. While the parameters of hemoglobin and platelets got high precision, low accuracy and six sigma level good performance-world class performance.

**Keywords:** *quality control, hematology analyzer, routine blood*