

# PROFICIENCY TESTING REPORT

ISHTM-AIIMS EXTERNAL QUALITY ASSURANCE PROGRAMME NABL accredited program as per ISO/IEC 17043:2010 standard Organized By Department of Hematology, AIIMS, New Delhi-110029



Duration of stability testing - minimum upto 8 days at ambient temp. after dispatch of specimens

**EQAP CODE No.:** 2399 **Distribution No.:** 160-E Month/Year: May/2023

Instrument ID: Mindray BC-5130 (TR-0C005114)

Name & Contact No. of PT Co-ordinator: Dr. Seema Tyagi (Prof.), Hematology, AIIMS, Delhi,

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## **CBC** and Retic Assessment

				Among Lab (Accuracy Testing)				Within Lab (Precision Testing)				
Test Parameters	S.No.	Your Result 1		Your Results Sum of 2 Value	Consensus result sum of 2 values (Assigned Value)	Uncertainty		Results	Consensus Result Diff. of 2 values (Assigned Value)	Uncertainty of Assigned Values	Z Score	
WBC x10³/μl	1	3.19	3.13	6.32	7.35	0.070	-0.57	0.06	0.1	0.006	-0.42	
RBC x10 <sup>6</sup> /μl	1	4.12	4.09	8.21	8.09	0.009	0.54	0.03	0.04	0.002	-0.27	
Hb g/dl	1	11.6	11.5	23.1	22.9	0.027	0.27	0.1	0.1	0.007	0.00	
НСТ%	1	37.1	36.8	73.9	73.8	0.184	0.02	0.3	0.4	0.024	-0.34	
MCV-fl	1	90.1	90.1	180.2	182.45	0.353	-0.22	0	0.3	0.022	-0.81	
МСН-Рд	1	28.1	28.1	56.2	56.4	0.075	-0.11	0	0.2	0.013	-0.90	
MCHC-g/dl	1	31.2	31.2	62.4	61.45	0.149	0.24	0	0.3	0.016	-1.01	
Plt. x10³/μl	1	260	251	511	422	1.693	1.88	9	6	0.326	0.58	
Retic %	2					IE						

## P.S. Assesment

		YOUR REPORT	CONSENSUS REPORT				
DLC%	3		Blast: 75-94, Lympho: 4-12, Poly: 2-5, nRBC/ Mono/Eos/Baso/Myelo/Meta/ Promyelo: 0-5				
RBC Morphology	3		Predominantly: Normocytic/ Normochromic, Moderate: Anisocytosi Microcytic, poikilocytosis				
Diagnosis	3	Acute leukemia.	Acute Leukemia (AL)				

### **COMBINED DATA VALUES OF TOTAL PARTICIPANTS**

Test parameters	S.No.	Total participants	Total No. responded	% of Labs with Z Score 0-2		% of Labs with Z Score 2-3		% of Labs with Z Score >3		
rest parameters		current dist. 160E		Among labs	Within lab	Among labs	Within lab	Among labs	Within lab	
WBC x10³/μl	1	314	313	90.1	92.33	4.47	1.6	5.43	6.07	
RBC x10 <sup>6</sup> /μl	1	314	314	85.99	90.76	4.46	3.18	9.55	6.06	
Hb g/dl	1	314	314	87.9	92.04	4.46	2.87	7.64	5.09	
HCT%	1	314	3 <mark>13</mark>	92.01	91.37	4.15	3.51	3.84	5.12	
MCV-fl	1	314	312	94.87	93.59	3.21	1.28	1.92	5.13	
MCH-Pg	1	314	312	88.46	92.31	4.81	2.88	6.73	4.81	
MCHC-g/dl	1	314	312	91.35	87.82	4.49	4.49	4.16	7.69	
Plt. x10³/μl	1	314	313	94.89	92.97	3.19	4.15	1.92	2.88	
ReticCount%	2	314	259	91.12	81.85	5.02	11.2	3.86	6.95	
PS Assessment	3	314	281	Satisfactory:97.14%, Borderline Sat.:1.91%, Unsatisfactory:0.95%						

#### \*Comments:

1). Among Lab (EQA): Results acceptable.

2). Within Lab (IQA): Precision acceptable.

**Note-1: EQA** (External Quality Assurance) : Your Performance among various of participating labs in PT, to determine the accuracy of your results.

**IQA** (Internal Quality Assurance): Your Performance of comparison of two consecutive measurement values within your lab to test the precision of your autoanalyzer.

**Note-2:** Z score among & within lab were calculated, as per to ISO/IEC 13528:2015 standard. Z score among lab (EQA)= (Your Result Sum of two values – Consensus Result sum of two values)/(Normalised IQR)

Z score within lab (IQA)= (Your Result Difference of two values - Consensus Result difference of two values)/(Normalised IQR)

IQR = Quartile 3 - Quartile 1 of participant data, Normalised IQR = 0.7413 x IQR

Note-3: Z score 0 to  $\pm 2$ : Acceptable, Z score  $\pm 2$  to  $\pm 3$ : Warning Signal, Z score  $> \pm 3$ : Unacceptable [As per ISO/IEC 13528:2015 standard]

**Note-4:** Z score value between "0 to  $\pm 2$ " are texted in green colour. Z score value between " $\pm 2$  to  $\pm 3$ " are texted in orange colour. Z score value  $> \pm 3$  are texted in red colour.

**Note-5:** Homogeneity and stability testing of PT sample were done as per ISO 13528:2015 standard. To pass homogeneity test, between sample SD (Ss) should be smaller than the check value (0.3\*SDPA). To pass the stability test, average difference in measurement values of first and last day sample  $(\bar{x}-\bar{y})$  should be smaller than the check value (0.3\*SDPA).

Note-6: ISHTM-AIIMS-EQAP does not subcontract any task of its scheme

Note-7: Participants are free to use methods/analyzer of their own choice.

**Note-8:** Proficiency testing (PT) samples are sent quarterly to each participant.

**Note-9:** All the necessary details regarding design and implementation of PT, are provided in the instruction sheet as well as on programme's website www.ishtmaiimseqap.com.

Note 10: Reports are kept confidential.

Report authorized by,

Dr. Seema Tyagi (Prof.)

PT Co-ordinator: ISHTM-AIIMS-EQAP

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