



## 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

Name & Contact No. of PT Co-ordinator: Dr. Manoranjan Mahapatra ( Prof. & Head), Hematology, AIIMS, Delhi,

Tel: 9013085730 , E-Mail : info@ishtmaiimseqap.com **Date of issue & status of the report:** 12-09-2024 [Final]

## **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	5.4	5	10.4	9.45	0.050	0.92	0.4	0.12	0.011	1.89	
RBC x10 <sup>6</sup> /μl	1	4.22	4.15	8.37	8.2	0.013	0.60	0.07	0.04	0.003	0.58	
Hb g/dl	1	12.8	12.8	25.6	25.5	0.036	0.13	0	0.1	0.009	-0.67	
НСТ%	1	38.4	37. <mark>6</mark>	76	75.9	0.198	0.02	0.8	0.3	0.029	1.12	
MCV-fl	1	91	90.6	181.6	185.5	0.364	-0.42	0.4	0.3	0.023	0.27	
МСН-Рд	1	30.8	30.3	61.1	62	0.099	-0.37	0.5	0.2	0.018	1.01	
MCHC-g/dl	1	34	33.3	67.3	66.9	0.165	0.10	0.7	0.3	0.024	1.08	
Plt. x10³/μl	1	117	104	221	239	1.683	-0.47	13	5	0.386	1.35	
Retic %	2	1.8	1.5	3.3	3	0.073	0.16	0.3	0.2	0.023	0.33	

### P.S. Assesment

		YOUR REPORT	CONSENSUS REPORT				
DLC%	3	Mye=0, Meta=0, Other=0	Blast: 84.25 - 93, Lympho: 2 - 6, Poly: 2 - 6, Mono/Myelo/Meta/Eos/Promyelo/Baso : 0-5				
RBC Morphology		Normocytic normochromic with moderate anisocytosis. Polychromatic cells and a few nucleated red cells seen	Predominantly: Normocytic/ Normochromic, Moderate: Macrocytic, Mild: Tear drop cells, Macroovalocytes++				
Diagnosis	3	Acute Leukaemia, morphology suggestive of ALL. Cytochemistry and flow cytometry required for confirmation	Acute Leukemia (AL)				

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

Test never eters	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	
Test parameters		current dist. 164Q		Among labs	Within lab	Among labs	Within lab	Among labs	Within lab
WBC x10³/μl	1	259	259	<mark>78.</mark> 76	85.33	4.63	1.93	16.610	12.74
RBC x10 <sup>6</sup> /μl	1	259	259	83.4	87.64	8.11	3.47	8.49	8.89
Hb g/dl	1	259	259	81.47	82.24	10.81	5.79	7.72	11.97
HCT%	1	259	2 <mark>59</mark>	89.19	88.8	5.41	3.86	5.4	7.34
MCV-fl	1	259	259	92.66	87.64	5.79	3.47	1.55	8.89
MCH-Pg	1	259	259	90.35	86.49	6.56	6.18	3.09	7.33
MCHC-g/dl	1	259	259	91.89	89.19	6.56	1.93	1.55	8.88
Plt. x10³/μl	1	259	259	90.73	86.87	4.63	5.41	4.64	7.72
ReticCount%	2	259	195	91.28	96.41	4.62	0.51	4.1	3.08
PS Assessment	3	259	210	Satisfactory :94.99%, Borderline Sat. :2.31%, Unsatisfactory :2.70%					

### \*Comments:

Among Lab (EQA): Results acceptable.
 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. Manoranjan Mahapatra ( Prof. & Head)

PT Co-ordinator: ISHTM-AIIMS-EQAP

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