

# 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

**Instrument ID:** IB-10156544(C4057)

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

Tel: 9013085730 , E-Mail : accuracy2000@gmail.com **Date of issue & status of the report:** 28-02-2023[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	7.8	7.6	15.4	14.94	0.0360	0.51	0.2	0.1	0.0080	0.96	
RBC x10 <sup>6</sup> /μl	1	3.74	3.63	7.37	7.31	0.0090	0.25	0.11	0.04	0.0020	1.89	
Hb g/dl	1	12.6	12.6	25.2	24.9	0.0270	0.49	0	0.1	0.0080	-0.79	
НСТ%	1	36.1	35.4	71.5	78.15	0.1710	-1.26	0.7	0.4	0.0250	0.67	
MCV-fl	1	97.5	96.5	194	214.85	0.4180	-1.57	1	0.3	0.0230	1.89	
MCH-Pg	1	34.7	33.7	68.4	68.1	0.0800	0.14	1	0.3	0.0220	1.89	
MCHC-g/dl	1	35.6	34.9	70.5	63.4	0.1470	1.59	0.7	0.3	0.0200	1.08	
Plt. x10³/μl	1	204	193	397	319	1.68	1.51	11	5	0.32	1.16	
Retic %	2	9	8	17	10	0.18	1.39	1	0.5	0.03	0.84	

### P.S. Assesment

		YOUR REPORT	CONSENSUS REPORT				
DLC%	_	Nrbcs=0 , Poly= L=60, E=4, Mono/Promono=0 , B1=28 P.M.=, Mye=, Meta=, Other=Atypical mononuclear cells	Lympho: 49-73, Blast: 5-35, Poly:4-10, nRBC/Eos/Baso/Mono /Myelo/Meta/ Promyelo: 0-5				
RBC Morphology	3		Predominantly: Normocytic/ Normochromic, Moderate: Anisocytosis, Microcytic				
Diagnosis		Acute leukemia favouring Acute Lymphoblatic 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. 158N		Among labs	Within lab	Among labs	Within lab	Among labs	Within lab
WBC x10³/μl	1	342	340	80	85.59	4.71	3.53	15.29	10.88
RBC x10 <sup>6</sup> /μl	1	342	342	88.3	90.35	6.73	3.51	4.97	6.14
Hb g/dl	1	342	342	86.55	85.96	6.73	6.73	6.72	7.31
HCT%	1	342	3 <mark>40</mark>	95.88	87.94	3.53	5.29	0.59	6.77
MCV-fl	1	342	340	97.35	92.35	1.76	2.35	0.89	5.3
MCH-Pg	1	342	340	86.47	88.24	8.82	6.47	4.71	5.29
MCHC-g/dl	1	342	340	95.59	90.88	3.24	4.71	1.17	4.41
Plt. x10³/μl	1	342	340	95	90	3.24	3.82	1.76	6.18
ReticCount%	2	342	265	94.34	89.81	4.53	5.66	1.13	4.53
PS Assessment	3	342	244	Satisfactory:81.59%, Borderline Sat.:11.40%, Unsatisfactory:7.01%					

#### \*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

Department of Hematology, AIIMS, New Delhi

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