



## 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.:** 2793 **Distribution No.:** 157-G **Month/Year:** September/2022

**Instrument ID:** 110YAX2103536

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:** 07-11-2022[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 of Assigned Values	Z Score	Doculto	Consensus Result Diff. of 2 values (Assigned Value)	Uncertainty of Assigned Values	Z Score	
WBC <b>x10³/μ</b> l	1	4.39	4.34	8.73	9.2	0.0320	-0.63	0.05	0.1	0.0080	-0.42	
RBC x10 <sup>6</sup> /μl	1	4.68	4.67	9.35	9.33	0.0120	0.07	0.01	0.04	0.0030	-0.81	
Hb g/dl	1	12.4	12.3	24.7	24.9	0.0310	-0.30	0.1	0.1	0.0090	0.00	
НСТ%	1	39.5	39.4	78.9	79.5	0.2200	-0.11	0.1	0.4	0.0280	-0.81	
MCV-fl	1	84.7	84.3	169	170.4	0.3660	-0.16	0.4	0.3	0.0270	0.22	
МСН-Рд	1	26.6	26.3	52.9	53.2	0.0790	-0.18	0.3	0.2	0.0180	0.45	
MCHC-g/dl	1	31.4	31.2	62.6	62.4	0.1810	0.04	0.2	0.3	0.0210	-0.34	
Plt. x10³/μl	1	186	177	363	370	1.48	-0.22	9	6	0.39	0.58	
Retic %	2	7.2	7	14.2	9.8	0.21	0.85	0.2	0.4	0.03	-0.67	

## P.S. Assesment

		YOUR REPORT	CONSENSUS REPORT				
DLC%	3		Poly: 42-56 , Lympho: 28-40,Eosino: 5-12 , Mono: 2-5, blast/Promyelo/Myelo/Meta: 0				
RBC Morphology	3		Predominantly: Normocytic/Normochromic; Moderate: Anisocytosis, Microcytosis, Hypochromia; Mild: Poikilocytosis, Target cells, Sickle shaped cells, tear drop cells				
Diagnosis	3	? SICKLE CELL ANEMIA.	Hemoglobinopathy possible sickle cell anemia				

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

Toot navemeters	C No	Total participants covered in the	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	5.NO.	current dist. 157G		Among labs	Within lab	Among labs	Within lab	Among labs	Within lab	
WBC x10³/μl	1	244	243	83.54	88.89	2.06	3.7	14.4	7.41	
RBC x10 <sup>6</sup> /μl	1	244	244	87.7	86.48	4.51	4.1	7.79	9.42	
Hb g/dl	1	244	244	87.3	84.43	8.2	7.79	4.5	7.78	
НСТ%	1	244	243	92.18	87.65	6.17	6.17	1.65	6.18	
MCV-fl	1	244	243	90.95	90.95	7.82	4.12	1.23	4.93	
MCH-Pg	1	244	243	86.42	<mark>9</mark> 0.95	5.35	2.06	8.23	6.99	
MCHC-g/dl	1	244	243	95.06	86.42	3.29	4.12	1.65	9.46	
Plt. x10³/μl	1	244	243	86.01	87.24	7	4.53	6.99	8.23	
ReticCount%	2	244	224	95.54	94.2	4.02	2.23	0.44	3.57	
PS Assessment	3	244	224	Satisfactory:88.13%, Borderline Sat.:10.65%, Unsatisfactory:1.22%						

#### \*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

-----End Of Report-----