



**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. : 4364

Distribution No.: 157-L

Month/Year: October/2022

Instrument ID: 109YAXH03499

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Date of issue &amp; status of the report: 17-11-2022[Final].

### CBC and Retic Assessment

Test Parameters	S.No.	Among Lab (Accuracy Testing)						Within Lab (Precision Testing)			
		Your Result 1	Your Result 2	Your Results Sum of 2 Value	Consensus result sum of 2 values (Assigned Value)	Uncertainty of Assigned Values	Z Score	Yours Results Diff. of 2 Values	Consensus Result Diff. of 2 values (Assigned Value)	Uncertainty of Assigned Values	Z Score
WBC x10 <sup>3</sup> /µl	1	8.36	7.38	15.74	12.5	0.0700	2.05	0.98	0.11	0.0090	6.52
RBC x10 <sup>6</sup> /µl	1	4.33	4.31	8.64	8.41	0.0130	0.65	0.02	0.04	0.0030	-0.34
Hb g/dl	1	12.1	12	24.1	23.6	0.0280	0.75	0.1	0.1	0.0090	0.00
HCT%	1	35	34.9	69.9	74	0.1930	-0.80	0.1	0.4	0.0280	-0.67
MCV-fl	1	81.2	80.5	161.7	177.4	0.3730	-1.50	0.7	0.3	0.0230	1.08
MCH-Pg	1	28	27.7	55.7	56.4	0.0820	-0.35	0.3	0.2	0.0220	0.34
MCHC-g/dl	1	34.7	34.2	68.9	63.7	0.1580	1.23	0.5	0.3	0.0220	0.67
Plt. x10 <sup>3</sup> /µl	1	182	175	357	593	3.16	-2.53	7	11	0.73	-0.34
Retic %	2	3.6	3.2	6.8	7.18	0.17	-0.08	0.4	0.4	0.03	0.00

### P.S . Assesment

YOUR REPORT			CONSENSUS REPORT		
DLC%	3	Nrbcs= , Poly=05 L=92, E=00, Mono/Promono=03 , B1=00 P.M.=00, Mye=00, Meta=00, Other=SMUDGE CELLS ARE PRESENT	Blast: 44-90, Lympho: 4-21, Poly: 1-6, nRBC/Eos/Baso/Mono/Myelo/Meta/ Promyelo: 0-5		
RBC Morphology	3	NORMOCYTIC NORMOCHROMIC RBCs ARE NOTED. ANISOPOIKILOCYTOSIS PRESENT.	Predominantly: Normocytic/ Normochromic, Moderate: Anisocytosis, Microcytic		
Diagnosis	3	CHRONIC LYMPHOCYTIC LEUKAEMIA	Acute Leukemia (AL)		

**COMBINED DATA VALUES OF TOTAL PARTICIPANTS**

Test parameters	S.No.	Total participants covered in the current dist. 157--L	Total No. responded	% of Labs with Z Score 0-2		% of Labs with Z Score 2-3		% of Labs with Z Score >3	
				Among labs	Within lab	Among labs	Within lab	Among labs	Within lab
<b>WBC x10<sup>3</sup>/µl</b>	1	312	300	77.33	90	6.33	2.33	16.34	7.67
<b>RBC x10<sup>6</sup>/µl</b>	1	312	312	88.14	83.65	3.85	5.45	8.01	10.9
<b>Hb g/dl</b>	1	312	312	84.29	82.69	5.45	5.77	10.26	11.54
<b>HCT%</b>	1	312	301	90.03	87.04	6.31	5.65	3.66	7.31
<b>MCV-fl</b>	1	312	301	93.02	89.37	4.65	6.64	2.33	3.99
<b>MCH-Pg</b>	1	312	301	87.71	90.03	7.97	2.66	4.32	7.31
<b>MCHC-g/dl</b>	1	312	301	92.36	91.03	5.98	2.99	1.66	5.98
<b>Plt. x10<sup>3</sup>/µl</b>	1	312	297	93.27	92.26	4.38	3.7	2.35	4.04
<b>ReticCount%</b>	2	312	206	88.83	89.81	5.83	7.28	5.34	2.91
<b>PS Assessment</b>	3	312	199	Satisfactory :90.04%, Borderline Sat. :3.21%, Unsatisfactory :6.75%					

**\*Comments:**

1). **Among Lab (EQA) : PS Diagnosis wrongly reported, remaining results acceptable**

2). **Within Lab (IQA) : Difference in the CBC measurement values for WBC unacceptable, may be due to random/human error.**

**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 ±2: Acceptable, Z score ±2 to ±3 :Warning Signal, Z score > ±3 : Unacceptable [As per ISO/IEC 13528:2015 standard]

**Note-4:** Z score value between "0 to ±2" are texted in green colour. Z score value between "±2 to ±3" are texted in orange colour. Z score value > ±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](http://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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