



**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

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Date of issue &amp; status of the report: 07-11-2022[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	3.13	2.87	6	9.2	0.0320	-4.32	0.26	0.1	0.0080	1.35
RBC x10 <sup>6</sup> /µl	1	4.5	4.37	8.87	9.33	0.0120	-1.61	0.13	0.04	0.0030	2.43
Hb g/dl	1	12.5	12.1	24.6	24.9	0.0310	-0.45	0.4	0.1	0.0090	2.02
HCT%	1	37.8	36.2	74	79.5	0.2200	-1.02	1.6	0.4	0.0280	3.24
MCV-fl	1	83.9	82.7	166.6	170.4	0.3660	-0.44	1.2	0.3	0.0270	2.02
MCH-Pg	1	27.7	27.6	55.3	53.2	0.0790	1.23	0.1	0.2	0.0180	-0.45
MCHC-g/dl	1	33.3	33.1	66.4	62.4	0.1810	0.86	0.2	0.3	0.0210	-0.34
Plt. x10 <sup>3</sup> /µl	1	199	168	367	370	1.48	-0.10	31	6	0.39	4.82
Retic %	2	7	6	13	9.8	0.21	0.62	1	0.4	0.03	2.02

### P.S . Assesment

YOUR REPORT		CONSENSUS REPORT
DLC%	3	Nrbcs=06 , Poly=56 L=26, E=07, Mono/Promono=05 , B1=00 P.M.=00, Mye=00, Meta=00, Other=00
RBC Morphology	3	Poly: 42-56 , Lympho: 28-40,Eosino: 5-12 , Mono: 2-5, blast/Promyelo/Myelo/Meta: 0
Diagnosis	3	Normocytic normochromic to mildly hypochromic picture with anisopoikilocytosis..Boat cells,spindle shaped cells,red cell containing howell-jolly body and target cells seen. Nucleated rbc's seen.
		Hemolytic anemia, most likely sickle cell. Advise- Kindly follow up with hemoglobin electrophoresis and sickling test
		Hemoglobinopathy possible sickle cell anemia

**COMBINED DATA VALUES OF TOTAL PARTICIPANTS**

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

**\*Comments:**

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

2). **Within Lab (IQA) : Difference in the CBC measurement values for HCT & PLT unacceptable, please check precision/human error.Remaining 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 ±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.)

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