



**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. :** 4496

**Distribution No.:** 161-L

**Month/Year:** October/2023

**Instrument ID:** Medonic

**Name & Contact No. of PT Co-ordinator:** Dr. Manoranjan Mahapatra ( Prof. & Head), Hematology, AIIMS, Delhi,  
 Tel: 9013085730 , E-Mail : accuracy2000@gmail.com

**Date of issue & status of the report:** 31-01-2024[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	2.9	2.7	5.6	4.95	0.040	0.58	0.2	0.07	0.005	1.95
RBC x10 <sup>6</sup> /µl	1	4.62	4.45	9.07	9.22	0.011	-0.52	0.17	0.04	0.003	2.92
Hb g/dl	1	14.8	14	28.8	30.1	0.028	-1.93	0.8	0.1	0.008	4.72
HCT%	1	46.9	45.8	92.7	96.2	0.206	-0.58	1.1	0.4	0.027	1.89
MCV-fl	1	102.9	101.6	204.5	209.5	0.364	-0.49	1.3	0.3	0.024	2.70
MCH-Pg	1	32	31.5	63.5	65.3	0.069	-1.01	0.5	0.2	0.017	1.35
MCHC-g/dl	1	31.5	30.6	62.1	62.2	0.126	-0.03	0.9	0.2	0.017	2.36
Plt. x10 <sup>3</sup> /µl	1	133	128	261	306	1.239	-1.29	5	5	0.314	0.00
Retic %	2	4.6	4.4	9	10.25	0.216	-0.19	0.2	0.5	0.044	-0.51

### P.S . Assesment

YOUR REPORT		CONSENSUS REPORT
<b>DLC%</b>	3	Nrbcs=2 , Poly=80 L=16, E=2, Mono/Promono=2 , B1= P.M.=, Mye=, Meta=, Other=
<b>RBC Morphology</b>	3	Poly: 53-65, Lympho: 25-35, Eosino: 2-6, Mono: 2-5, blast/Promyelo/Myelo/Meta: 0-5
<b>Diagnosis</b>	3	Rbcs are normocytic normochromic with moderate degree of anisopoikilocytosis composed of tear drop cells, elliptocytes ,schiztocytes
		Mild:Target cells , Tear drop cells
		Thalassemia Haemoglobinopathy

**COMBINED DATA VALUES OF TOTAL PARTICIPANTS**

Test parameters	S.No.	Total participants covered in the current dist. 161--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	301	301	87.38	91.03	7.64	2.99	4.98	5.98
<b>RBC x10<sup>6</sup>/µl</b>	1	301	301	87.71	88.37	6.64	5.98	5.65	5.65
<b>Hb g/dl</b>	1	301	301	86.71	83.39	7.31	6.64	5.98	9.97
<b>HCT%</b>	1	301	301	94.35	87.71	2.66	4.65	2.99	7.64
<b>MCV-fl</b>	1	301	301	94.68	94.02	3.99	2.66	1.33	3.32
<b>MCH-Pg</b>	1	301	301	86.38	90.7	7.31	3.65	6.31	5.65
<b>MCHC-g/dl</b>	1	301	301	93.36	91.36	3.99	4.65	2.65	3.99
<b>Plt. x10<sup>3</sup>/µl</b>	1	301	301	94.02	90.37	3.32	3.65	2.66	5.98
<b>ReticCount%</b>	2	301	186	95.7	87.1	3.23	8.06	1.07	4.84
<b>PS Assessment</b>	3	301	177	Satisfactory :94.03%, Borderline Sat. :3.32%, Unsatisfactory :2.65%					

**\*Comments:**

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

2). **Within Lab (IQA) : Difference in the CBC measurement values for HB 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. Manoranjan Mahapatra ( Prof. & Head)

PT Co-ordinator: ISHTM-AIIMS-EQAP

Department of Hematology, AIIMS, New Delhi

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