



## 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.:** 5579

Distribution No.: 162-N

Month/Year: February/2024

Instrument ID: HORIBA

Model Name.: HORIBA ABX MICROS 60

Serial No.: 201 OT 10000 80

Name & Contact No. of PT Co-ordinator: Dr. Manoranjan Mahapatra ( Prof. & Head), Hematology, AIIMS, Delhi,

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Date of issue & status of the report: 10-04-2024[Final].

# **CBC** and Retic Assessment

Test Parameters	S.No.			Amo	ng Lab (Ace	curacy Testi	Within Lab (Precision Testing)				
		Your Result 1		Your Results Sum of 2 Value	Consensus result sum of 2 values (Assigned Value)	Uncertainty of Assigned Values		Yours Results Diff. of 2 Values	Consensus Result Diff. of 2 values (Assigned Value)	Uncertainty of Assigned Values	Z Score
WBC x10³/µl	1	7.9	7.85	15.75	15.9	0.039	-0.14	0.05	0.11	0.008	-0.57
RBC x10 <sup>6</sup> /μl	1	4,39	4.37	8.76	8.83	0.011	-0.27	0.02	0.04	0.003	-0.45
Hb g/dl	1	9.6	9.5	19.1	18.7	0.020	0.74	0.1	0.1	0.007	0.00
НСТ%	1	36.5	35.6	72.1	65.5	0.193	1.12	0.9	0.3	0.021	1.76
MCV-fl	1	83.1	81.5	164.6	149.25	0.386	1.33	1.6	0.2	0.018	4.72
МСН-Рд	1	21.9	21.7	43.6	42.3	0.053	0.88	0.2	0.2	0.013	0.00
MCHC-g/dl	1	26.7	26.3	53	56.85	0.168	-0.69	0.4	0.3	0.017	0.34
Plt. x10³/μl	1	376	357	733	669	3.294	0.71	19	9	0.544	1.12
Retic %	2	4.5	3.5	8	8.75	0.201	-0.11	1	0.4	0.026	1.01

## P.S. Assesment

		YOUR REPORT	CONSENSUS REPORT				
DLC%	3	Nrbcs=0 , Poly=5 L=92, E=01, Mono/Promono=02 , B1=0 P.M.=0, Mye=0, Meta=0, Other=	Lymp: 83-93, Poly: 5-10, nRBC/blast/Eosino/Myelo/Meta/Mono: 0-5				
RBC Morphology	3	MICROCYTIC HYPOCHROMIC BUT PREDOMINANTLY N.C. N.C.	Predominantly: Normocytic/Normochromic; Moderate: Anisocytosis, Mild: Poikilocytosis, Microcytic, Hypochromic				
Diagnosis	3	CHRONIC LYMPHOCYTIC LEUKAEMIA	Chronic Lymphocytic Leukemia (CLL)				

### COMBINED DATA VALUES OF TOTAL PARTICIPANTS

Took wows we about	S.No.	Total participants covered in the current dist. 162N	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				Among labs	Within lab	Among labs	Within lab	Among labs	Within lab
WBC x10³/µl	1	338	336	90.77	87.5	5.65	5.95	3.58	6.55
RBC x10 <sup>6</sup> /μl	1	338	338	84.02	92.6	9.76	3.25	6.22	4.15
Hb g/dl	1	338	338	86.69	91.12	7.1	2.96	6.21	5.92
НСТ%	1	338	336	97.92	91.37	2.08	5.36	0	3.27
MCV-fl	1	338	336	97.62	89.58	1.49	5.65	0.89	4.77
MCH-Pg	1	338	336	88.39	93.75	8.04	2.98	3.57	3.27
MCHC-g/dl	1	338	336	97.62	88.39	1.79	4.76	0.59	6.85
Plt. x10³/μl	1	338	336	89.58	90.77	6.85	5.65	3.57	3.58
ReticCount%	2	338	228	95.18	93.42	2.63	7.89	2.19	-1.31
PS Assessment	3	338	259	Satisfactory	:95.87%, Bo	orderline Sa	t. :1.18%, U1	nsatisfactory	:2.95%

#### \*Comments:

- 1). Among Lab (EQA): Results acceptable.
- 2). Within Lab (IQA): Difference in the CBC measurement values for MCV 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  $\pm 2$ : 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. Manoranjan Mahapatra ( Prof. & Head)

PT Co-ordinator: ISHTM-AIIMS-EQAP

Department of Hematology, AIIMS, New Delhi

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