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

PC-1002

Duration of stability testing - minimum upto 8 days at ambient temp. after dispatch of specimens

EQAP CODE No. : 3400 **Distribution No.:** 160-I **Month/Year:** June/2023

Instrument ID: Mindray BC 5000 (SS-75004270)

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: 08-08-2023[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 x10^3/µl	1	5.71	5.61	11.32	12	0.089	**-0.36**	0.1	0.1	0.013	**0.00**
RBC x10^6/µl	1	4.76	4.75	9.51	9.61	0.014	**-0.44**	0.01	0.04	0.004	**-0.67**
Hb g/dl	1	15.7	15.6	31.3	30.3	0.054	**1.08**	0.1	0.1	0.011	**0.00**
HCT%	1	54.5	53.6	108.1	92.3	0.320	**2.52**	0.9	0.4	0.041	**1.12**
MCV-fl	1	114.4	113.2	227.6	193	0.544	**3.25**	1.2	0.3	0.031	**2.43**
MCH-Pg	1	32.9	32.9	65.8	63	0.106	**1.43**	0	0.3	0.023	**-1.35**
MCHC-g/dl	1	29.1	28.7	57.8	64.6	0.229	**-1.52**	0.4	0.3	0.028	**0.34**
Plt. x10^3/µl	1	142	131	273	305	2.716	**-0.71**	11	5	0.459	**1.08**
Retic %	2	2	1.8	3.8	5.4	0.169	**-0.50**	0.2	0.3	0.032	**-0.27**

P.S . Assesment

YOUR REPORT		CONSENSUS REPORT
DLC%	3	Nrbcs=2 , Poly=20 L=08, E=00, Mono/Promono=04 , B1=36 P.M.=15, Mye=10, Meta=03, Other=	Blast: 38-63, Poly: 9-17, Lympho: 8-20, Myelo: 2-9, Mono: 1-5, nRBC/Promyelo/Meta/Eos: 0-5
RBC Morphology	3	Microcytes (++), Hypochromia (+), Occasional amniocytes	Predominantly: Normocytic/Normochromic; Moderate: Microcytosis, Hypochromia; Mild: Anisocytosis
Diagnosis	3	Acute Leukemia. Features suggestve of Acute myelomonocytic leukemia (M 4) or Hypogranular APML with blasts > 30%	Acute Myeloid Leukemia (AML)

COMBINED DATA VALUES OF TOTAL PARTICIPANTS

Test parameters	S.No.	Total participants covered in the current dist. 160--I	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
WBC $x10^3$/µl	1	145	143	86.71	86.71	4.2	4.9	9.09	8.39
RBC $x10^6$/µl	1	145	145	84.14	88.97	7.59	2.07	8.27	8.96
Hb g/dl	1	145	145	85.52	86.9	6.21	6.9	8.27	6.2
HCT%	1	145	143	93.01	90.21	4.9	5.59	2.09	4.2
MCV-fl	1	145	143	93.71	88.11	4.2	7.69	2.09	4.2
MCH-Pg	1	145	143	87.41	93.01	5.59	2.8	7	4.19
MCHC-g/dl	1	145	143	93.71	90.21	4.2	2.8	2.09	6.99
Plt. $x10^3$/µl	1	145	143	90.21	93.01	8.39	1.4	1.4	5.59
ReticCount%	2	145	134	92.54	95.52	5.97	0.00	1.49	4.48
PS Assessment	3	145	129	Satisfactory :91.05%, Borderline Sat. :2.06%, Unsatisfactory :6.89%					

*Comments:

1). Among Lab (EQA) : CBC result for *MCV* unacceptable, may be due to random/human error

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 ±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.

Note 10: Reports are kept confidential.

Report authorized by,

Dr. Manoranjan Mahapatra (Prof. & Head)
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