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. : 1910 **Distribution No.:** 160-F **Month/Year:** June/2023

Instrument ID: BENESPHERA H31 (RQ-75122029)

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: 01-08-2023[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	3.8	3.7	7.5	10.7	0.037	**-3.35**	0.1	0.1	0.005	**0.00**
RBC x10^6/µl	1	3.93	3.81	7.74	10.22	0.011	**-8.14**	0.12	0.05	0.003	**1.57**
Hb g/dl	1	13.1	12.8	25.9	28.7	0.027	**-4.20**	0.3	0.1	0.008	**1.35**
HCT%	1	43.1	42.7	85.8	90.7	0.206	**-0.83**	0.4	0.4	0.024	**0.00**
MCV-fl	1	109.9	107.2	217.1	178.6	0.326	**3.89**	2.7	0.3	0.020	**6.48**
MCH-Pg	1	33.3	32.7	66	56	0.068	**5.62**	0.6	0.2	0.015	**1.80**
MCHC-g/dl	1	30.3	29.7	60	62.7	0.147	**-0.60**	0.6	0.3	0.018	**1.01**
Plt. x10^3/µl	1	32	31	63	235.5	1.723	**-3.85**	1	5	0.331	**-0.67**
Retic %	2	0.3	0.2	0.5	10.9	0.282	**-1.16**	0.1	0.5	0.034	**-0.67**

P.S . Assesment

		YOUR REPORT	CONSENSUS REPORT
DLC%	3	Nrbcs=1 , Poly=7 L=9, E=0, Mono/Promono=0 , B1=82 P.M.=0, Mye=2, Meta=0, Other=MP- ABSENT	Blast: 49-83, Lympho: 3-10, Myelo: 2-10, Poly: 2-7, Promyelo: 0-9, nRBC/ Mono/Eos/Baso/Meta: 0-5
RBC Morphology	3	NORMOCYTIC NORMOCHROMIC	Predominantly: Normocytic/ Normochromic, Moderate: Anisocytosis, Microcytic
Diagnosis	3	ACUTE MYELOBLASTIC LEUKEMIA	Acute Leukemia (AL)

COMBINED DATA VALUES OF TOTAL PARTICIPANTS

Test parameters	S.No.	Total participants covered in the current dist. 160--F	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 $x10^3/\mu l$	1	326	324	85.49	90.12	6.17	5.25	8.34	4.63
RBC $x10^6/\mu l$	1	326	326	87.42	91.72	7.98	2.76	4.6	5.52
Hb g/dl	1	326	326	86.81	86.81	6.75	4.6	6.44	8.59
HCT%	1	326	323	95.05	83.59	2.79	6.19	2.16	10.22
MCV-fl	1	326	323	95.67	85.14	3.1	9.29	1.23	5.57
MCH-Pg	1	326	321	88.16	95.02	7.79	1.87	4.05	3.11
MCHC-g/dl	1	326	323	95.98	91.33	3.41	4.64	0.61	4.03
Plt. $x10^3/\mu l$	1	326	324	91.67	91.98	7.1	4.94	1.23	3.08
ReticCount%	2	326	273	93.77	88.64	4.03	8.06	2.2	3.30
PS Assessment	3	326	282	Satisfactory :91.67%, Borderline Sat. :2.16%, Unsatisfactory :6.17%					

*Comments:

1). Among Lab (EQA) : Result for most the CBC parameters unacceptable, check calibration.

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 ±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,

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