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. : 1733 **Distribution No.:** 160-C **Month/Year:** May/2023

Instrument ID: 804pnx0903

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

Date of issue & status of the report: 11-07-2023[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	23.5	23.26	46.76	17.4	0.112	9.36	0.24	0.17	0.010	0.43
RBC x10^6/µl	1	4.36	4.34	8.7	8.58	0.008	0.51	0.02	0.04	0.002	-0.54
Hb g/dl	1	12.7	12.7	25.4	25.1	0.026	0.40	0	0.1	0.007	-1.35
HCT%	1	39.4	39.1	78.5	75.35	0.191	0.54	0.3	0.35	0.022	-0.13
MCV-fl	1	90	90	180	175.3	0.389	0.40	0	0.3	0.018	-1.01
MCH-Pg	1	29.3	29.2	58.5	58.6	0.077	-0.05	0.1	0.2	0.014	-0.45
MCHC-g/dl	1	32.5	32.3	64.8	66.5	0.168	-0.34	0.2	0.3	0.016	-0.34
Plt. x10^3/µl	1	71	71	142	200.5	2.329	-0.82	0	6	0.342	-1.01
Retic %	2	2.3	2.3	4.6	18.5	0.269	-1.79	0	0.5	0.031	-0.84

P.S . Assesment

		YOUR REPORT	CONSENSUS REPORT
DLC%	3	Nrbcs=1 , Poly=3 L=12, E=1, Mono/Promono=2 , B1=82 P.M.=, Mye=, Meta=, Other=	Blast: 60-87, Lympho: 9-23, Poly: 1-4, nRBC/ Mono/Eos/Baso/Myelo/Meta/ Promyelo: 0-5
RBC Morphology	3	Anisopoikilocytosis; Microcytes, Normocytes, few Macro and Macroovalocytes, hypochromic fragmented cells and occasional nRBC pRESENT	Predominantly: Normocytic/ Normochromic, Moderate: Anisocytosis, Microcytic
Diagnosis	3	ACUTE LEUKEMIA	Acute Leukemia (AL)

COMBINED DATA VALUES OF TOTAL PARTICIPANTS

Test parameters	S.No.	Total participants covered in the current dist. 160--C	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	367	363	80.17	87.05	9.09	4.96	10.74	7.99
RBC $x10^6/\mu l$	1	367	367	88.56	92.1	5.45	4.36	5.99	3.54
Hb g/dl	1	367	367	84.47	89.37	7.63	5.72	7.9	4.91
HCT%	1	367	364	94.23	95.05	4.12	1.65	1.65	3.3
MCV-fl	1	367	364	92.86	88.46	4.67	6.87	2.47	4.67
MCH-Pg	1	367	364	81.59	90.93	7.42	4.4	10.99	4.67
MCHC-g/dl	1	367	364	93.96	86.26	3.57	4.12	2.47	9.62
Plt. $x10^3/\mu l$	1	367	364	94.23	87.91	4.12	6.87	1.65	5.22
ReticCount%	2	367	343	93.29	86.88	4.08	10.2	2.63	2.92
PS Assessment	3	367	340	Satisfactory :83.62%, Borderline Sat. :9.83%, Unsatisfactory :6.55%					

*Comments:

1). Among Lab (EQA) : CBC result for *WBC* 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

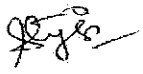
Note-7: Participants are free to use methods/analyzer of their own choice.

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. Seema Tyagi (Prof.)
PT Co-ordinator: ISHTM-AIIMS-EQAP
Department of Hematology, AIIMS, New Delhi

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

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PC-1002

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

EQAP CODE No. : 1733 **Distribution No.:** 161-C **Month/Year:** August/2023

Instrument ID: 804PNX0903

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: 23-10-2023[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 $x10^3/\mu l$	1	4.7	4.6	9.3	9.3	0.029	**0.00**	0.1	0.1	0.006	0.00
RBC $x10^6/\mu l$	1	3.7	3.7	7.4	7.39	0.006	**0.06**	0	0.03	0.002	-1.01
Hb g/dl	1	11.8	11.8	23.6	23.3	0.020	**0.51**	0	0.1	0.007	-1.35
HCT%	1	35.7	35.1	70.8	70.1	0.114	**0.21**	0.6	0.3	0.021	1.35
MCV-fl	1	95	93	188	189.7	0.245	**-0.24**	2	0.3	0.020	5.10
MCH-Pg	1	31.4	31.4	62.8	63.2	0.063	**-0.23**	0	0.2	0.015	-0.90
MCHC-g/dl	1	33.7	33.2	66.9	66.6	0.116	**0.09**	0.5	0.3	0.016	0.67
Plt. $x10^3/\mu l$	1	160	156	316	308	1.404	**0.19**	4	4	0.259	0.00
Retic %	2	2	1.5	3.5	2.5	0.055	**0.55**	0.5	0.2	0.011	1.01

P.S . Assesment

		YOUR REPORT	CONSENSUS REPORT
DLC%	3	Nrbcs=1 , Poly=50 L=05, E=10, Mono/Promono=02 , B1=02 P.M.=06, Mye=10, Meta=06, Other=	Poly: 38 - 52, Myelo: 15 - 26, Meta: 9- 17, Blast: 2-6, Promyelo: 2-6, Lympho: 2- 5, Eosino: 2-5, Mono: 1-2, nRBC/ Baso: 0-5
RBC Morphology	3	microcytic hypochromic few tear drop cells ,elliptocytes ,polychromasia	Predominantly: Normocytic/Normochromic; Moderate: Anisocytosis, Hypochromic, Mild: Poikilocytosis,Tear drop cells
Diagnosis	3	chronic myeloid leukemia	Chronic Myeloid Leukemia (Chronic Phase)

COMBINED DATA VALUES OF TOTAL PARTICIPANTS

Test parameters	S.No.	Total participants covered in the current dist. 161--C	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	359	358	82.12	88.55	3.91	4.75	13.97	6.7
RBC $x10^6/\mu l$	1	359	359	88.02	90.81	8.64	4.46	3.34	4.73
Hb g/dl	1	359	359	89.97	91.09	5.57	5.01	4.46	3.9
HCT%	1	359	358	91.9	88.55	6.7	6.98	1.4	4.47
MCV-fl	1	359	359	92.48	93.31	6.69	2.79	0.83	3.9
MCH-Pg	1	359	359	89.69	93.59	5.29	1.67	5.02	4.74
MCHC-g/dl	1	359	359	93.31	91.36	4.18	4.18	2.51	4.46
Plt. $x10^3/\mu l$	1	359	359	94.43	91.36	3.9	5.29	1.67	3.35
ReticCount%	2	359	298	91.61	91.95	5.37	6.71	3.02	1.34
PS Assessment	3	359	335	Satisfactory :96.11%, Borderline Sat. :2.50%, Unsatisfactory :1.39%					

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.

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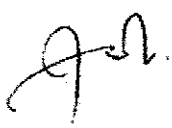

Dr. Manoranjan Mahapatra (Prof. & Head)
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----------End Of Report----------