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. : 4899 **Distribution No.:** 160-M **Month/Year:** July/2023

Instrument ID: BC-3600(TB-8200197)

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: 05-10-2023[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	3.3	3.3	6.6	6.84	0.042	-0.23	0	0.1	0.006	-1.04
RBC $x10^6/\mu l$	1	3.93	3.84	7.77	7.66	0.009	0.48	0.09	0.04	0.003	1.12
Hb g/dl	1	12.6	12.3	24.9	25.7	0.030	-0.98	0.3	0.1	0.009	1.35
HCT%	1	41	39.7	80.7	82	0.187	-0.23	1.3	0.5	0.027	1.80
MCV-fl	1	104.2	103.5	207.7	214.6	0.390	-0.62	0.7	0.4	0.025	0.67
MCH-Pg	1	32.1	32	64.1	67.3	0.109	-1.03	0.1	0.3	0.020	-0.67
MCHC-g/dl	1	30.9	30.8	61.7	62.2	0.142	-0.13	0.1	0.3	0.019	-0.60
Plt. $x10^3/\mu l$	1	133	121	254	226	1.219	0.88	12	5	0.316	1.22
Retic %	2	20.9	19.8	40.7	12.9	0.310	3.10	1.1	0.5	0.038	1.01

P.S . Assesment

	YOUR REPORT		CONSENSUS REPORT
DLC%	3	Nrbcs=0 , Poly=23 L=75, E=2, Mono/Promono=0 , B1=0 P.M.=0, Mye=0, Meta=0, Other=Lymphocytic leucocytosis wityh pressure of SMUDGE CELLS & IMMATURE LYMPHOCYTES. platelet redced	Lymp: 67-80, Poly: 15-26, mono: 1-3, nRBC/blast/Myelo/Meta/Eosino: 0-5
RBC Morphology	3	Mildly anisocytosis&Poikilocytosis,Normocytosis to microcytosis,mild hypochromia	Predominantly: Normocytic/Normochromic; Moderate: Anisocytosis, Microcytic, Hypochromia; Mild: Macrocytosis, Poikilocytosis.
Diagnosis	3	possibility of chronic lymphocytic leukaemia	Chronic Lymphoproliferative Disorder/CLL

COMBINED DATA VALUES OF TOTAL PARTICIPANTS

Test parameters	S.No.	Total participants covered in the current dist. 160--M	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	309	307	85.99	88.27	4.89	4.56	9.12	7.17
RBC $x10^6/\mu l$	1	309	309	87.38	88.35	5.83	5.5	6.79	6.15
Hb g/dl	1	309	309	87.38	84.79	4.21	4.53	8.41	10.68
HCT%	1	309	307	95.11	89.25	3.26	4.23	1.63	6.52
MCV-fl	1	309	307	94.46	93.16	5.21	3.26	0.33	3.58
MCH-Pg	1	309	307	93.16	87.62	3.26	6.19	3.58	6.19
MCHC-g/dl	1	309	307	93.49	87.62	4.23	7.17	2.28	5.21
Plt. $x10^3/\mu l$	1	309	306	88.89	90.52	7.52	6.54	3.59	2.94
ReticCount%	2	309	249	91.97	85.94	5.22	12.45	2.81	1.61
PS Assessment	3	309	258	Satisfactory :98.72%, Borderline Sat. :0.64%, Unsatisfactory :0.64%					

Comments:

1). Among Lab (EQA) : *RETIC* result is 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)
PT Co-ordinator: ISHTM-AIIMS-EQAP
Department of Hematology, AIIMS, New Delhi

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

PROFICIENCY TESTING REPORT

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

EQAP CODE No. : 4899 **Distribution No.:** 161-M **Month/Year:** October/2023

Instrument ID: MINDRAY

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: 01-02-2024[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 x10^3/µl	1	4.6	4.6	9.2	8.92	0.036	**0.34**	0	0.1	0.007	-0.79
RBC x10^6/µl	1	4.17	4.15	8.32	8.26	0.011	**0.23**	0.02	0.04	0.003	-0.45
Hb g/dl	1	11.7	11.6	23.3	24.4	0.029	**-1.85**	0.1	0.1	0.008	0.00
HCT%	1	38.2	37.9	76.1	75.2	0.179	**0.21**	0.3	0.4	0.027	-0.22
MCV-fl	1	92	91	183	181.8	0.329	**0.14**	1	0.3	0.025	1.89
MCH-Pg	1	28.2	27.8	56	59.1	0.079	**-1.59**	0.4	0.2	0.018	0.90
MCHC-g/dl	1	30.6	30.6	61.2	64.8	0.147	**-0.98**	0	0.3	0.025	-0.81
Plt. x10^3/µl	1	200	189	389	413	1.605	**-0.62**	11	5	0.372	0.90
Retic %	2	15.4	14.5	29.9	17	0.300	**1.52**	0.9	0.5	0.037	0.67

P.S . Assesment

		YOUR REPORT	CONSENSUS REPORT
DLC%	3	Nrbcs=0 , Poly=53 L=3, E=2, Mono/Promono=1 , B1=6 P.M.=4, Mye=18, Meta=11, Other=	Poly: 50 – 65, Myelo: 10 - 18, Meta: 8– 15, Lympho: 2– 5, Promyelo: 1-5, Blast: 1-3, Eosino: 1-3, Mono, Baso: 0-5
RBC Morphology	3	Mild anisocytosis &poikilocytosis, Normocytosis,normochromia. Marked leucocytosis with myeloid precursors	Predominantly: Normocytic/Normochromic; Moderate: Anisocytosis, Hypochromic, Mild: Poikilocytosis
Diagnosis	3	CHRONIC MYELOPROIFERATIVE DISORDER	Chronic Myeloid Leukemia (Chronic Phase)

COMBINED DATA VALUES OF TOTAL PARTICIPANTS

Test parameters	S.No.	Total participants covered in the current dist. 161--M	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	272	272	83.09	93.75	6.62	2.21	10.29	4.04
RBC $x10^6/\mu l$	1	272	272	86.4	93.38	6.25	2.57	7.35	4.05
Hb g/dl	1	272	272	84.56	88.24	5.88	6.25	9.56	5.51
HCT%	1	272	272	89.71	88.6	7.35	5.15	2.94	6.25
MCV-fl	1	272	272	90.44	90.81	6.25	3.31	3.31	5.88
MCH-Pg	1	272	272	90.07	90.07	4.04	2.57	5.89	7.36
MCHC-g/dl	1	272	272	91.91	87.13	5.15	5.15	2.94	7.72
Plt. $x10^3/\mu l$	1	272	272	91.54	93.01	5.88	3.31	2.58	3.68
ReticCount%	2	272	244	97.54	84.02	2.05	12.7	0.41	3.28
PS Assessment	3	272	238	Satisfactory :97.43%, Borderline Sat. :1.10%, Unsatisfactory :1.47%					

Comments:

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

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.
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