



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. : 2172

Distribution No.: 155-F

Month/Year: March/2022

Instrument ID: K11052125001

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: 29-04-2022[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											
RBC x10 ⁶ /µl	1	3.39	3.38	6.77	7.41	0.0340	-0.62	0.01	0.06	0.0040	-0.84	
Hb g/dl	1	12.1	12	24.1	24	0.0220	0.17	0.1	0.1	0.0090	0.00	
HCT%	1	33.4	33.2	66.6	70.05	0.1940	-0.64	0.2	0.5	0.0260	-0.58	
MCV-fl	1	98.5	98.2	196.7	185.7	0.6860	0.53	0.3	0.6	0.0430	-0.40	
MCH-Pg	1	35.7	35.5	71.2	64.4	0.2860	0.78	0.2	0.4	0.0300	-0.45	
MCHC-g/dl	1	36.2	36.2	72.4	68.65	0.1770	0.79	0	0.4	0.0250	-1.08	
Plt. x10 ³ /µl	1	474	456	930	852	3.93	0.72	18	10	0.75	0.60	
Retic %	2	12	11	23	14.55	0.24	1.25	1	0.4	0.03	1.01	

P.S . Assesment

YOUR REPORT			CONSENSUS REPORT		
DLC%	3	Nrbcs=5, Poly=8 L=2, E=0, Mono/Promono=0, B1=72 P.M.=5, Mye=11, Meta=2, Other=0	Blast: 45-80, Poly: 7-13, Lympho: 5-14, Promyelo: 0-6.25, Myelo/Mono/Meta: 1-5, nRBC/Eos: 0-1		
RBC Morphology	3	The cells show mild anisocytosis. RBC predominantly normocytic normochromic along with fair number macrocytes and occasional microcytes. Few RBC show polychromasia. 5nRBC/100WBC seen.	Predominantly: Normocytic/Normochromic; Moderate: Microcytosis, Hypochromia; Mild: Anisocytosis, Macrocytosis		
Diagnosis	3	Acute Leukemia (AML-M3)	Acute Myeloid Leukemia (AML)		

COMBINED DATA VALUES OF TOTAL PARTICIPANTS

Test parameters	S.No.	Total participants covered in the current dist. 155--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 /µl	1	314	307	86.32	85.67	6.19	6.19	7.49	8.14
RBC x10 ⁶ /µl	1	314	314	94.59	86.31	3.18	3.82	2.23	9.87
Hb g/dl	1	314	314	84.39	81.21	7.01	8.6	8.6	10.19
HCT%	1	314	309	89.32	88.67	5.83	4.85	4.85	6.48
MCV-fl	1	314	309	98.38	90.61	1.29	3.24	0.33	6.15
MCH-Pg	1	314	308	96.1	93.18	1.95	2.92	1.95	3.9
MCHC-g/dl	1	314	309	88.67	88.67	4.21	4.21	7.12	7.12
Plt. x10 ³ /µl	1	314	309	94.17	91.91	3.24	2.59	2.59	5.5
ReticCount%	2	314	314	86.94	82.17	3.18	6.05	9.88	11.78
PS Assessment	3	314	279	Satisfactory :86.27%, Borderline Sat. :2.55%, Unsatisfactory :11.18%					

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.

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.ishtmailmseqap.com.

Report authorized by,



Dr. Seema Tyagi (Prof.)

PT Co-ordinator: ISHTM-AIIMS-EQAP

Department of Hematology, AIIMS, New Delhi

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



RML – Quality Assurance Program (RML – QAP)



HEMATOLOGY

ALL METHOD REPORT

Cycle-11/2022

Lab Code: 2488

Round -4

Date: 01/08/2022

Complete Blood Count (CBC)

Parameters	No.of Participants	Group Mean	Standard deviation (SD)	Uncertainty of Assign Values	Range (± 2 SD)	Your Value	Standard Deviation Index(SDI)
Hb gm/dl	214	11.6	0.4	0.03	10.8-12.4	11.3	-0.7
WBC $\times 10^3/\mu\text{l}$.	212	10.5	2.4	0.21	5.6-15.3	13.0	1.0
RBC $\times 10^6/\mu\text{l}$.	214	4.0	0.1	0.01	3.74-4.30	3.93	-0.7
Hct%	213	34.9	2.4	0.21	30.2-39.6	33.2	-0.7
MCV fl.	214	86.8	4.2	0.36	78.5-95.2	84.4	-0.6
MCH pg.	214	28.8	1.0	0.09	26.8-30.8	28.8	0.0
MCHC gm/dl	214	33.1	2.0	0.17	29.1-37.2	34.8	0.8
Platelet $\times 10^3/\mu\text{l}$.	214	269.3	22.6	1.93	224.0-314.5	298	1.3

Interpretation of SDI:

SDI Value(+/-)	0 - 0.5	0.6 - 0.9	1.0 - 2.0	2.1 - 2.9	≥ 3
Interpretation	Excellent Performance	Good Performance	Acceptable Performance	Marginal Performance Need Improvement	Unacceptable Performance Needs Urgent action

Peripheral Blood Smear(PBS):

	Your Result	Consensus Result
DLC	ProL-6, S-4, P-12, L-73, E-2	L-66.0-84.7, P-11.8-24.7 ProL-3.0-13.3
Morphology	WBC series show predominance of neoplastic lymphocytes with interspersed prolymphocytes and smudge cells	Δ Normocytic/ Normochromic (161/184) Δ Smudge cells (150/184) Δ Lymphocytosis (129/184) Δ Leukocytosis (101/184) Δ Atypical cells (30/184)
Diagnosis	Chronic Lymphoproliferative Disorder CLL/ Lymphoma	Chronic Lymphocytic Leukemia (CLL), Chronic Lymphoproliferative Disorder (CLPD), Chronic Lymphoid Leukemia

Legends	(*) Excluded From Group Mean	(.) Not Reported	(#)Late Result Submission	(\$)Reported in other Unit
---------	------------------------------	------------------	---------------------------	----------------------------

Chief Coordinator

Dr. Sanjay Mehrotra

Checked By

Doc. No.: ASS / FR / 06 / R 01 / Dt: 05.01.2022

Programme Director

Dr. Bandana Mehrotra

****End of Report****

Page 1 of 5



Address: B-121, Nirala Nagar, Lucknow - 226 020, Ph: 3034100, 30130 Lines: 4077180, 2788444 Fax: (0522)2788553

Email: rmlresearchfoundation@gmail.com Website: www.rmlpathology.com



RML – Quality Assurance Program (RML – QAP)



HEMATOLOGY METHOD WISE REPORT

Lab Code: 2488

Cycle-11/2022
Round -4

Date: 01/08/2022

Note: Your lab is not the part of Method Group

Complete Blood Count (CBC)

Parameters	Method Group	No.of Participants	Group Mean	Standard deviation (SD)	Uncertainty of Assign Values	Range (± 2 SD)	Your Value	Standard Deviation Index(SDI)
Hb gm/dl	Photometric	57	11.6	0.4	0.07	10.7-12.5	-	-
WBC $\times 10^3/\mu\text{l}$.	Electrical impedance	64	11.1	1.6	0.23	8.1-14.0	-	-
RBC $\times 10^6/\mu\text{l}$.	Electrical impedance	74	4.0	0.2	0.03	3.7-4.3	-	-
Hct%	Calculated	38	35.3	2.7	0.55	30.0-40.6	-	-
MCV fl.	Electrical impedance	40	87.2	4.8	0.95	77.6-96.8	-	-
MCH pg.	Calculated	75	28.8	1.0	0.14	26.8-30.8	-	-
MCHC gm/dl	Calculated	80	33.0	2.1	0.29	28.8-37.3	-	-
Platelet $\times 10^3/\mu\text{l}$.	Electrical impedance	72	265.9	21.9	3.23	222.2-309.6	-	-

Interpretation of SDI:

SDI Value(+/-)	0 - 0.5	0.6 - 0.9	1.0 - 2.0	2.1 - 2.9	≥ 3
Interpretation	Excellent Performance	Good Performance	Acceptable Performance	Marginal Performance Need Improvement	Unacceptable Performance Needs Urgent action

Legends	(*) Excluded From Group Mean	[.] Not Reported	(#) Late Result Submission	(S) Reported in other Unit
---------	------------------------------	------------------	----------------------------	----------------------------

Chief Coordinator

Dr.Sanjay Mehrotra

Programme Director

Dr.Bandana Mehrotra

Checked By:

Prepared By: SS

End of Report

Page 2 of 5



Address: B-171, Noida Nagar, Lucknow - 226 020. Ph : 4014100-130 (30 Lines), 4077180, 2783144 Fax: 415247788355

Email: rmlresearchfoundation@gmail.com Website: www.rmlpathology.com

Continuous Efforts And Consistent Leadership Quality For Better Results

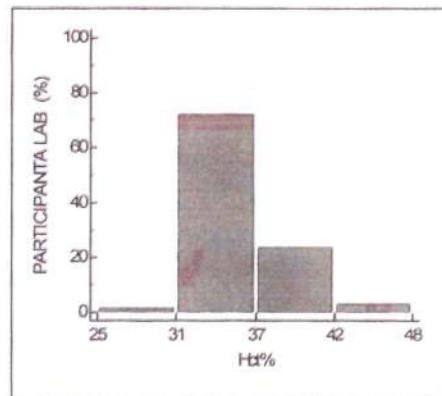
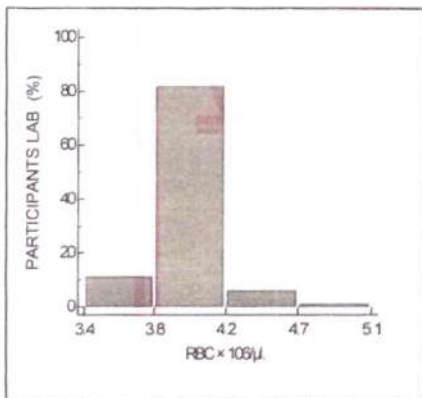
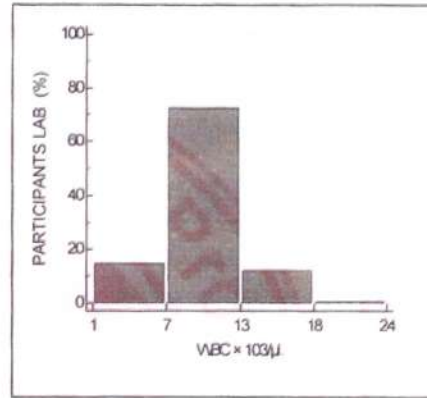
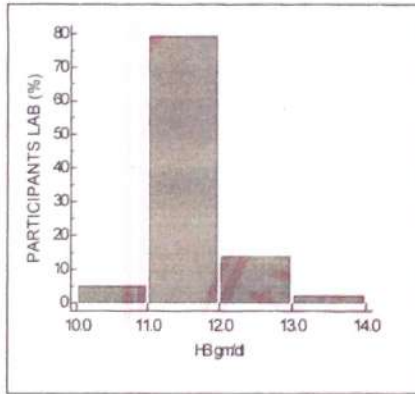


HEMATOLOGY

GRAPHICAL REPORT

Cycle - 11/2022
Round -4

Date: 01/08/2022



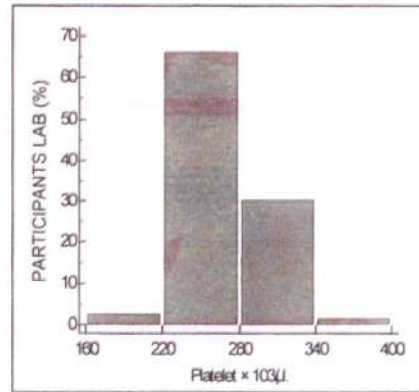
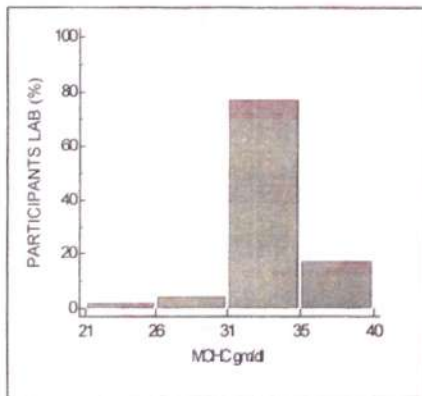
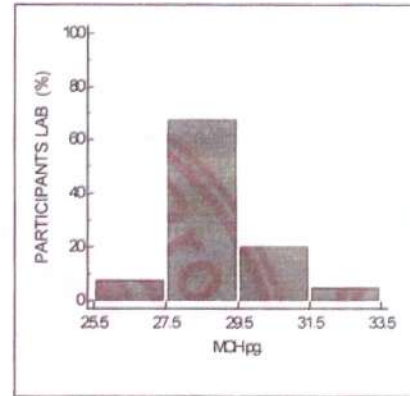
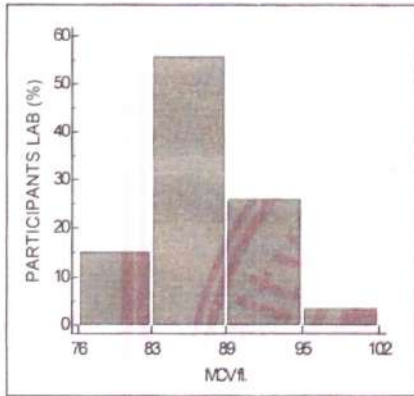


HEMATOLOGY

GRAPHICAL REPORT

Cycle - 11/2022
Round -4

Date: 01/08/2022





Hematology

ALL PARTICIPANTS COMPLETE DATA REPORT

Cycle - 11/2022

Round No - 4

Date: 01/08/2022

Note:- This report is only for information about the participant's performance in the particular round

Parameters	Total No. of Participants	No. of Responses	No of Participant Excluded from Group Mean	No. of Participants SDI b/w 0.0 - 2	No. of Participants SDI b/w 2.1 - 2.9	No. of Participants SDI >3
Hb gm/dl	241	214	15	182	6	26
WBC $\times 10^3/\mu\text{L}$	241	212	8	188	14	10
RBC $\times 10^3/\mu\text{L}$	241	214	18	161	21	32
HCT%	241	213	6	195	5	13
MCV fl.	241	214	2	202	6	6
MCH pg.	241	214	5	192	11	11
MCHC gm/dl	241	214	1	198	9	7
Platelet $\times 10^3/\mu\text{L}$	241	214	5	195	9	10

End of Report

Page 5 of 5

Doc. No.: ASS / FR / 01 / R 00 / Dt.: 01.07.2012



Address: B-171, Nirala Nagar, Lucknow - 226 020. Ph: 4034100-130 (10 Lines), 4077180, 2788444 Fax: 052232788555

Email: rmlresearchfoundation@gmail.com Website: www.rmlpathology.com

Continuous Efforts And Emotions Leads To Quality Results