NABL ISO/IEC 17043 : 2010 Accredited PC-1001

HEMATOLOGY

ALL METHOD REPORT

Cycle-10/2021
Round -2

Lab Code: 2188

Date: 30/03/2021

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	153	12.0	0.5	0.05	11.1-12.9	*24.3	27.4
WBC × 10^3/µl.	149	9.8	2.2	0.22	5.4-14.1	17.8	3.7
RBC × 10^6/µl.	150	4.1	0.2	0.02	3.8-4.4	*8.02	24.4
Hct%	150	35.8	2.6	0.27	30.6-41.1	*71.5	13.5
MCV fl.	150	86.8	4.8	0.49	77.3-96.4	89.1	0.5
MCH pg.	150	29.2	1.1	0.11	27.0-31.3	30.3	1.0
MCHC gm/dl	150	33.6	2.4	0.24	28.8-38.3	34.0	0.2
Platelet × 10^3/µl.	150	247.2	22.7	2.31	201.9-292.5	262	0.7

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	P-20, L-26, E-52, M-2	E26.1-64.8, P13.4-42.2, L11.9-28.8, M1.4-5.8
Morphology	Normocytic Normochromic, Eosinophilia	Δ Normocytic/Normochromic (109/111), Δ Eosinophilia (95/111)
Diagnosis	Eosinophilia	Eosinophilia

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

Chief Coordinator

Dr. Sanjay Mehrotra

Programme Director

Dr.Bandana Mehrotra

Checked By:

End of Report

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HEMATOLOGY

METHOD WISE REPORT

Cycle-10/2021
Round - 2

Lab Code: 2188

Date: 30/03/2021

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	55	11.9	0.3	0.06	11.2-12.6	*24.3	37.6
WBC × 10^3/µl.	Electrical impedance	61	10.3	1.1	0.17	8.2-12.4	*17.8	7.0
RBC × 10^6/µl.	Electrical impedance	60	4.1	0.1	0.02	3.8-4.4	*8.02	28.1
Hct%	Calculated	49	35.9	2.7	0.48	30.5-41.3	*71.5	13.2
MCV fl.	Electrical impedance	35	87.5	4.1	0.86	79.4-95.7	89.1	0.4
MCH pg.	Calculated	63	29.2	0.9	0.15	27.3-31.1	30.3	1.2
MCHC gm/dl	Calculated	65	33.3	2.6	0.40	28.2-38.5	34.0	0.3
Platelet × 10^3/µl.	Electrical impedance	54	245.4	22.6	3.84	200.3-290.6	262	0.7

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	($)Reported in other Unit

Chief Coordinator

Dr.Sanjay Mehrotra

Checked By:

Programme Director

Dr.Bandana Mehrotra

End of Report

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

NABL Certificate No. PC - 1002

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

EQAP CODE No. : 4135 **Distribution No.:** 152-K **Month/Year:** March/2021

Instrument ID: 2008341

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: 24-05-2021[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	6.74	6.26	13	15.4	0.3590	**-0.33**	0.48	0.13	0.0180	**2.15**
RBC x10^6/µl	1	4.26	3.89	8.15	8.28	0.0130	**-0.60**	0.37	0.05	0.0040	**8.63**
Hb g/dl	1	12.4	11.2	23.6	23.9	0.0420	**-0.40**	1.2	0.1	0.0110	**14.84**
HCT%	1	37.1	34.4	71.5	74.3	0.3300	**-0.48**	2.7	0.4	0.0370	**7.30**
MCV-fl	1	88.4	87.1	175.5	178.7	0.5920	**-0.31**	1.3	0.2	0.0310	**2.97**
MCH-Pg	1	29.1	28.8	57.9	57.8	0.1200	**0.05**	0.3	0.2	0.0260	**0.45**
MCHC-g/dl	1	33.4	33.26	66.66	63.7	0.2690	**0.61**	0.14	0.2	0.0280	**-0.20**
Plt. x10^3/µl	1	154	135	289	360	3.51	**-1.22**	19	9	0.85	**1.12**
Retic %	2	1	0.5	1.5	5	0.15	**-1.19**	0.5	0.3	0.10	**0.90**

P.S . Assesment

		YOUR REPORT	CONSENSUS REPORT
DLC%	3	Nrbcs=01 , Poly=40 L=01, E=0, Mono/Promono=01 , B1=04 P.M.=01, Mye=23, Meta=28, Other=Nil	Poly: 30 – 65, Myelo: 10 – 35, Meta: 5 – 20, Promyelo/Blast/Lympho: 1 – 10, nRBC/Baso/Eos/Mono: 0 – 5
RBC Morphology	3	Normocytic Normochromic	Predominantly: Normocytic/Normochromic; Moderate: Anisocytosis, Hypochromia, Microcytosis; Mild: Poikilocytosis, Macrocytosis
Diagnosis	3	Suggestive of myeloproliferative disoroer	Chronic Myeloid Leukemia (CML)

EQAP Code No.: 4135 *Distribution No.: 152-K Month/Year: March/2021* *Instrument ID: 2008341*

COMBINED DATA VALUES OF TOTAL PARTICIPANTS

Test parameters	S.No.	Total participants covered in the current dist.	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	124	137	85.4	85.4	8.03	8.03	5.84	5.84
RBC x10^6/µl	1	124	137	87.59	91.24	5.11	3.65	6.57	4.38
Hb g/dl	1	124	137	89.78	89.78	5.84	1.46	3.65	8.03
HCT%	1	124	137	92.7	90.51	5.11	2.92	1.46	5.84
MCV-fl	1	124	137	93.43	86.86	4.38	3.65	1.46	8.76
MCH-Pg	1	124	137	91.24	90.51	3.65	2.92	4.38	5.84
MCHC-g/dl	1	124	137	93.43	86.13	4.38	5.11	1.46	8.03
Plt. x10^3/µl	1	124	137	89.05	86.13	5.84	5.11	3.65	7.3
ReticCount%	2	124	122	93.44	85.25	3.28	0.82	3.28	13.93
PS Assessment	3	124	128	Acceptable:92,Warning Signal:4,Unacceptable :4					

***Comments:**

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

2). Within Lab (IQA) : Difference in the CBC measurement values for *RBC, HB & HCT* unacceptable, please check precision/human error.Remaining 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.

Report authorized by,

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

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