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. : 2525 **Distribution No.:** 159-E **Month/Year:** February/2023

Instrument ID: Beckman coulter/RBC04011

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: 17-04-2023[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	4.7	4.6	9.3	9.47	0.032	**-0.22**	0.1	0.1	0.006	**0.00**
RBC x10^6/µl	1	4.23	4.22	8.45	8.74	0.009	**-1.30**	0.01	0.04	0.003	**-0.67**
Hb g/dl	1	12.7	12.7	25.4	26	0.025	**-1.01**	0	0.1	0.008	**-0.67**
HCT%	1	40.6	40.4	81	80.9	0.171	**0.02**	0.2	0.4	0.025	**-0.54**
MCV-fl	1	95.9	95.7	191.6	184.7	0.293	**0.83**	0.2	0.3	0.022	**-0.27**
MCH-Pg	1	30.1	30.1	60.2	59.5	0.061	**0.45**	0	0.2	0.016	**-0.67**
MCHC-g/dl	1	31.5	31.4	62.9	64.3	0.122	**-0.40**	0.1	0.3	0.021	**-0.67**
Plt. x10^3/µl	1	116	116	232	241	1.286	**-0.26**	0	4	0.281	**-0.90**
Retic %	2	5.5	4	9.5	7.15	0.129	**0.65**	1.5	0.3	0.022	**4.05**

P.S . Assesment

		YOUR REPORT	CONSENSUS REPORT
DLC%	3	Nrbcs=1 , Poly=6 L=64, E=1, Mono/Promono=0 , B1=28 P.M.=0, Mye=0, Meta=0, Other=0	Blast: 52-88, Lympho: 4-12, Poly:2-6, Promyelo: 0-10, nRBC/Eos/Baso/Mono /Myelo/Meta/ : 0-5
RBC Morphology	3	Predominant Microcytic hypochromic, Moderate Normocytic normochromic, mild normocytic hypochromic,anisocytosis.	Predominantly: Normocytic/ Normochromic, Moderate: Anisocytosis, Microcytic
Diagnosis	3	Adult onset Acute lymphoblastic leukaemia	Acute Leukemia (AL)

COMBINED DATA VALUES OF TOTAL PARTICIPANTS

Test parameters	S.No.	Total participants covered in the current dist. 159--E	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	307	307	83.39	94.14	5.54	2.93	11.07	2.93
RBC x10^6/µl	1	307	307	83.71	91.21	5.54	3.58	10.75	5.21
Hb g/dl	1	307	307	83.06	89.58	7.17	4.23	9.77	6.19
HCT%	1	307	307	93.81	89.58	2.61	3.91	3.58	6.51
MCV-fl	1	307	306	96.41	94.77	2.94	1.63	0.65	3.6
MCH-Pg	1	307	305	90.82	91.15	4.59	2.95	4.59	5.9
MCHC-g/dl	1	307	306	95.42	87.58	3.27	5.56	1.31	6.86
Plt. x10^3/µl	1	307	307	93.16	91.21	3.26	6.19	3.58	2.6
ReticCount%	2	307	282	92.2	93.62	6.38	1.77	1.42	4.61
PS Assessment	3	307	278	Satisfactory :95.12%, Borderline Sat. :1.95%, Unsatisfactory :2.93%					

***Comments:**

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

2). Within Lab (IQA) : *RETIC* result is 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,

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

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

PROFICIENCY TESTING 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. : 2525 **Distribution No.:** 160-E **Month/Year:** May/2023

Instrument ID: DXH800 /RBC04011

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: 26-07-2023[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	3.7	3.1	6.8	7.35	0.070	**-0.30**	0.6	0.1	0.006	**5.19**
RBC x10^6/µl	1	4.01	3.96	7.97	8.09	0.009	**-0.54**	0.05	0.04	0.002	**0.27**
Hb g/dl	1	11.2	11.1	22.3	22.9	0.027	**-0.81**	0.1	0.1	0.007	**0.00**
HCT%	1	36.8	36.4	73.2	73.8	0.184	**-0.11**	0.4	0.4	0.024	**0.00**
MCV-fl	1	91.9	91.8	183.7	182.45	0.353	**0.12**	0.1	0.3	0.022	**-0.54**
MCH-Pg	1	28	28	56	56.4	0.075	**-0.22**	0	0.2	0.013	**-0.90**
MCHC-g/dl	1	30.5	30.5	61	61.45	0.149	**-0.12**	0	0.3	0.016	**-1.01**
Plt. x10^3/µl	1	217	213	430	422	1.693	**0.17**	4	6	0.326	**-0.39**
Retic %	2	3.4	2.6	6	16.9	0.408	**-0.83**	0.8	0.5	0.044	**0.51**

P.S . Assesment

YOUR REPORT			CONSENSUS REPORT
DLC%	3	Nrbcs=1 , Poly=6 L=88, E=2, Mono/Promono=3 , B1= P.M.=, Mye=, Meta=, Other=smudge cells seen	Blast: 75-94, Lympho: 4-12, Poly: 2-5, nRBC/ Mono/Eos/Baso/Myelo/Meta/ Promyelo: 0-5
RBC Morphology	3	Predominanat normocytic hypochromic,moderate normocytic normochromic,microcytes seen.	Predominantly: Normocytic/ Normochromic, Moderate: Anisocytosis, Microcytic, poikilocytosis
Diagnosis	3	Lymphoproliferative disorder	Acute Leukemia (AL)

COMBINED DATA VALUES OF TOTAL PARTICIPANTS

Test parameters	S.No.	Total participants covered in the current dist. 160--E	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	313	90.1	92.33	4.47	1.6	5.43	6.07
RBC x10^6/µl	1	314	314	85.99	90.76	4.46	3.18	9.55	6.06
Hb g/dl	1	314	314	87.9	92.04	4.46	2.87	7.64	5.09
HCT%	1	314	313	92.01	91.37	4.15	3.51	3.84	5.12
MCV-fl	1	314	312	94.87	93.59	3.21	1.28	1.92	5.13
MCH-Pg	1	314	312	88.46	92.31	4.81	2.88	6.73	4.81
MCHC-g/dl	1	314	312	91.35	87.82	4.49	4.49	4.16	7.69
Plt. x10^3/µl	1	314	313	94.89	92.97	3.19	4.15	1.92	2.88
ReticCount%	2	314	259	91.12	81.85	5.02	11.2	3.86	6.95
PS Assessment	3	314	281	Satisfactory :97.14%, Borderline Sat. :1.91%, Unsatisfactory :0.95%					

***Comments:**

1). Among Lab (EQA) : PS Diagnosis partially correct, remaining results acceptable

2). Within Lab (IQA) : Difference in the CBC measurement values for WBC 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.
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