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. : 5402   **Distribution No.:** 158-N   **Month/Year:** February/2023

Instrument ID: ERBA Mannheim H560, 5 part analyser

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: 28-02-2023[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 x10³/µl	1	7.74	7.65	15.39	14.94	0.0360	0.50	0.09	0.1	0.0080	-0.10
RBC x10⁶/µl	1	3.81	3.79	7.6	7.31	0.0090	1.22	0.02	0.04	0.0020	-0.54
Hb g/dl	1	12.4	12.4	24.8	24.9	0.0270	-0.16	0	0.1	0.0080	-0.79
HCT%	1	42.5	42.2	84.7	78.15	0.1710	1.24	0.3	0.4	0.0250	-0.22
MCV-fl	1	111.5	111.3	222.8	214.85	0.4180	0.60	0.2	0.3	0.0230	-0.27
MCH-Pg	1	32.6	32.5	65.1	68.1	0.0800	-1.43	0.1	0.3	0.0220	-0.54
MCHC-g/dl	1	29.3	29.1	58.4	63.4	0.1470	-1.12	0.2	0.3	0.0200	-0.27
Plt. x10³/µl	1	183	181	364	319	1.68	0.87	2	5	0.32	-0.58
Retic %	2	5	4	9	10	0.18	-0.20	1	0.5	0.03	0.84

P.S . Assesment

		YOUR REPORT	CONSENSUS REPORT
DLC%	3	Nrbcs=1 , Poly=5 L=69, E=0, Mono/Promono=0 , B1=21 P.M.=1, Mye=3, Meta=1, Other=0	Lympho: 49-73, Blast: 5-35, Poly:4-10, nRBC/Eos/Baso/Mono /Myelo/Meta/ Promyelo: 0-5
RBC Morphology	3	normocytes, spherocytes, occasional macrocytes and polychromatic cells. normochromic RBC	Predominantly: Normocytic/ Normochromic, Moderate: Anisocytosis, Microcytic
Diagnosis	3	Acute leukemia possibly ALL. Advise flow cytometry	Acute Leukemia (AL)

COMBINED DATA VALUES OF TOTAL PARTICIPANTS

Test parameters	S.No.	Total participants covered in the current dist. 158--N	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 x10³/µl	1	342	340	80	85.59	4.71	3.53	15.29	10.88
RBC x10⁶/µl	1	342	342	88.3	90.35	6.73	3.51	4.97	6.14
Hb g/dl	1	342	342	86.55	85.96	6.73	6.73	6.72	7.31
HCT%	1	342	340	95.88	87.94	3.53	5.29	0.59	6.77
MCV-fl	1	342	340	97.35	92.35	1.76	2.35	0.89	5.3
MCH-Pg	1	342	340	86.47	88.24	8.82	6.47	4.71	5.29
MCHC-g/dl	1	342	340	95.59	90.88	3.24	4.71	1.17	4.41
Plt. x10³/µl	1	342	340	95	90	3.24	3.82	1.76	6.18
ReticCount%	2	342	265	94.34	89.81	4.53	5.66	1.13	4.53
PS Assessment	3	342	244	Satisfactory :81.59%, Borderline Sat. :11.40%, Unsatisfactory :7.01%					

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 (x̄-ȳ) 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. : 5402   **Distribution No.: 159-N**   **Month/Year:** April/2023
Instrument ID: ERBA Mannheim H560 5 PART ANALYSER
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: 14-06-2023[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 x10³/μl	1	3.97	3.95	7.92	8.1	0.039	-0.15	0.02	0.1	0.007	-0.64
RBC x10⁶/μl	1	5.52	5.45	10.97	10.7	0.013	0.73	0.07	0.05	0.003	0.34
Hb g/dl	1	12.5	12.3	24.8	25.2	0.026	-0.49	0.2	0.1	0.007	0.67
HCT%	1	43.4	42.8	86.2	79.8	0.155	1.37	0.6	0.4	0.025	0.45
MCV-fl	1	78.7	78.5	157.2	149.4	0.206	1.23	0.2	0.2	0.017	0.00
MCH-Pg	1	22.6	22.6	45.2	46.8	0.059	-1.00	0	0.2	0.012	-1.35
MCHC-g/dl	1	28.8	22.8	51.6	62.5	0.120	-2.90	6	0.3	0.018	19.22
Plt. x10³/μl	1	195	188	383	371	1.599	0.25	7	7	0.392	0.00
Retic %	2	20	18	38	15.65	0.249	2.93	2	0.5	0.034	2.53

P.S . Assesment

		YOUR REPORT	CONSENSUS REPORT
DLC%	3	Nrbcs=0 , Poly=50 L=6, E=4, Mono/Promono=6 , B1=0 P.M.=2, Mye=22, Meta=10, Other=POLYCHROMATIC CELLS SEEN	Poly: 44 – 60, Myelo: 10 - 22, Meta: 7– 16, Lympho: 2– 6, Promyelo: 2-6, Eosino: 1-4, Blast: 1-4, Mono: 1 - 3, nRBC/Baso: 0-5
RBC Morphology	3	NORMOCYTES, OCCASIONAL MACROCYTES AND SPHEROCYTES	Predominantly: Normocytic/Normochromic; Moderate: Anisocytosis, hypochromia, Microcytosis; Mild: Macrocytosis, Poikilocytosis
Diagnosis	3	Possibly 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. 159--N	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	363	358	88.55	86.31	3.07	6.42	8.38	7.27
RBC x10^6/µl	1	363	363	87.6	87.05	6.89	4.96	5.51	7.99
Hb g/dl	1	363	363	90.63	85.12	4.96	5.23	4.41	9.65
HCT%	1	363	359	94.71	87.47	4.46	4.74	0.83	7.79
MCV-fl	1	363	359	93.04	88.3	5.29	6.69	1.67	5.01
MCH-Pg	1	363	359	86.91	93.31	8.08	1.39	5.01	5.3
MCHC-g/dl	1	363	358	93.85	87.43	5.31	5.59	0.84	6.98
Plt. x10^3/µl	1	363	359	92.76	92.48	4.74	3.9	2.5	3.62
ReticCount%	2	363	272	93.38	84.93	4.78	8.82	1.84	6.25
PS Assessment	3	363	266	Satisfactory :93.95%, Borderline Sat. :2.20%, Unsatisfactory :3.85%					

Comments:

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

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