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. : 1834 **Distribution No.:** 155-F **Month/Year:** March/2022

Instrument ID: ERBA ELITE-580 (S.No- K11052120035)

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	8.08	7.74	15.82	16.51	0.0810	**-0.34**	0.34	0.14	0.0110	**1.35**
RBC x10^6/µl	1	4.35	4.05	8.4	7.41	0.0340	**0.97**	0.3	0.06	0.0040	**4.05**
Hb g/dl	1	12.1	12	24.1	24	0.0220	**0.17**	0.1	0.1	0.0090	**0.00**
HCT%	1	39.1	37.4	76.5	70.05	0.1940	**1.19**	1.7	0.5	0.0260	**2.31**
MCV-fl	1	92.4	90	182.4	185.7	0.6860	**-0.16**	2.4	0.6	0.0430	**2.43**
MCH-Pg	1	29.6	27.8	57.4	64.4	0.2860	**-0.80**	1.8	0.4	0.0300	**3.15**
MCHC-g/dl	1	32	30.9	62.9	68.65	0.1770	**-1.21**	1.1	0.4	0.0250	**1.89**
Plt. x10^3/µl	1	539	518	1057	852	3.93	**1.89**	21	10	0.75	**0.82**
Retic %	2	3	2.5	5.5	14.55	0.24	**-1.34**	0.5	0.4	0.03	**0.17**

P.S . Assesment

		YOUR REPORT	CONSENSUS REPORT
DLC%	3	Nrbcs=2 , Poly=10 L=10, E=5, Mono/Promono=20 , B1=35 P.M.=10, Mye=5, Meta=5, Other=-	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	moderate anisopoikilocytosis predominantly microcytes with moderate to severe hypochromia.	Predominantly: Normocytic/Normochromic; Moderate: Microcytosis, Hypochromia; Mild: Anisocytosis, Macrocytosis
Diagnosis	3	Features suggestive of leukemia.	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) : PS Diagnosis partially correct, remaining results acceptable

2). Within Lab (IQA) : Difference in the CBC measurement values for RBC & MCH 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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