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. : 6601 **Distribution No.:** 164-Q **Month/Year:** July/2024

Instrument ID: Horiba **Model Name.:** Yumizen H500 OT **Serial No.:** 308YODH05905

Name & Contact No. of PT Co-ordinator: Dr. Manoranjan Mahapatra (Prof. & Head), Hematology, AIIMS, Delhi, Tel: 9013085730 , E-Mail : info@ishtmaiimseqap.com

Date of issue & status of the report: 12-09-2024 [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	12.7	12.29	24.99	9.45	0.050	**15.08**	0.41	0.12	0.011	**1.96**
RBC x10^6/µl	1	4.11	4.06	8.17	8.2	0.013	**-0.11**	0.05	0.04	0.003	**0.19**
Hb g/dl	1	12.9	12.8	25.7	25.5	0.036	**0.27**	0.1	0.1	0.009	**0.00**
HCT%	1	38.2	37.1	75.3	75.9	0.198	**-0.13**	1.1	0.3	0.029	**1.80**
MCV-fl	1	93	91.3	184.3	185.5	0.364	**-0.13**	1.7	0.3	0.023	**3.78**
MCH-Pg	1	31.6	31.3	62.9	62	0.099	**0.37**	0.3	0.2	0.018	**0.34**
MCHC-g/dl	1	34.6	33.7	68.3	66.9	0.165	**0.35**	0.9	0.3	0.024	**1.62**
Plt. x10^3/µl	1	140	139	279	239	1.683	**1.05**	1	5	0.386	**-0.67**
Retic %	2	0.3	0.2	0.5	3	0.073	**-1.36**	0.1	0.2	0.023	**-0.33**

P.S . Assesment

		YOUR REPORT	CONSENSUS REPORT
DLC%	3	Nrbcs=2 , Poly=7 L=2, E=0, Mono/Promono=0 , B1=90 P.M.=0, Mye=0, Meta=1, Other=0	Blast: 84.25 - 93, Lympho: 2 - 6, Poly: 2 - 6, Mono/Myelo/Meta/Eos/Promyelo/Baso : 0-5
RBC Morphology	3	RBC are predominantly normocytic normochromic with few microcytic hypochromic cells are noted. Moderate anisopoikilocytosis are noted. 2nrbc/100wbcs are noted.	Predominantly: Normocytic/ Normochromic, Moderate: Macrocytic, Mild: Tear drop cells, Macroovalocytes++
Diagnosis	3	Acute leukemia. Advised flowcytometry and cytogenetics for further categorisation.	Acute Leukemia (AL)

COMBINED DATA VALUES OF TOTAL PARTICIPANTS

Test parameters	S.No.	Total participants covered in the current dist. 164--Q	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	259	259	78.76	85.33	4.63	1.93	16.61	12.74
RBC x10^6/µl	1	259	259	83.4	87.64	8.11	3.47	8.49	8.89
Hb g/dl	1	259	259	81.47	82.24	10.81	5.79	7.72	11.97
HCT%	1	259	259	89.19	88.8	5.41	3.86	5.4	7.34
MCV-fl	1	259	259	92.66	87.64	5.79	3.47	1.55	8.89
MCH-Pg	1	259	259	90.35	86.49	6.56	6.18	3.09	7.33
MCHC-g/dl	1	259	259	91.89	89.19	6.56	1.93	1.55	8.88
Plt. x10^3/µl	1	259	259	90.73	86.87	4.63	5.41	4.64	7.72
ReticCount%	2	259	195	91.28	96.41	4.62	0.51	4.1	3.08
PS Assessment	3	259	210	Satisfactory :94.99%, Borderline Sat. :2.31%, Unsatisfactory :2.70%					

***Comments:**

1). Among Lab (EQA) : CBC result for *WBC* unacceptable, may be due to random/human error

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

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