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. : 2474 **Distribution No.:** 163-F **Month/Year:** March/2024

Instrument ID: HORIBA **Model Name.:** YUMIZENH500 **Serial No.:** 007YOXX03585

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: 10-05-2024[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	5.13	4.85	9.98	12.8	0.053	**-1.73**	0.28	0.1	0.008	**1.73**
RBC x10^6/µl	1	3.79	3.78	7.57	8.41	0.007	**-4.20**	0.01	0.04	0.002	**-0.81**
Hb g/dl	1	13.2	13.1	26.3	26.8	0.020	**-0.84**	0.1	0.1	0.008	**0.00**
HCT%	1	40.7	40.4	81.1	84.5	0.183	**-0.62**	0.3	0.4	0.024	**-0.27**
MCV-fl	1	107.2	106.8	214	200.9	0.360	**0.99**	0.4	0.2	0.019	**0.67**
MCH-Pg	1	34.6	32.6	67.2	63.9	0.060	**2.02**	2	0.3	0.018	**5.73**
MCHC-g/dl	1	32.6	32.3	64.9	63.2	0.126	**0.36**	0.3	0.3	0.013	**0.00**
Plt. x10^3/µl	1	176	170	346	367	1.134	**-0.67**	6	4	0.246	**0.45**
Retic %	2	8.4	8.2	16.6	19	0.335	**-0.22**	0.2	0.6	0.044	**-0.77**

P.S . Assesment

YOUR REPORT			CONSENSUS REPORT
DLC%	3	Nrbcs=0 , Poly=10 L=3, E=0, Mono/Promono=0 , B1=85 P.M.=1, Mye=0, Meta=1, Other=0	Poly: 64 – 75, Lympho: 6 – 12, Myelo: 4 - 9, Meta: 2 – 6, Eosino: 2- 5, Mono: 1-5, Promyelo/Blast/Baso: 0-5
RBC Morphology	3	Anisocytosis,Normocytic MNormocromic	Predominantly: Normocytic/Normochromic; Moderate: Anisocytosis, Mild: Poikilocytosis, Macrocytes, Tear drop cells
Diagnosis	3	Acute Leukemia	Chronic Myeloid Leukemia (Chronic Phase)

COMBINED DATA VALUES OF TOTAL PARTICIPANTS

Test parameters	S.No.	Total participants covered in the current dist. 163--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	345	341	89.15	88.27	4.4	6.74	6.45	4.99
RBC $x10^6$/µl	1	345	345	85.51	88.7	7.83	4.93	6.66	6.37
Hb g/dl	1	345	345	85.8	88.41	7.54	4.93	6.66	6.66
HCT%	1	345	341	94.72	91.5	3.23	4.99	2.05	3.51
MCV-fl	1	345	341	98.53	86.51	1.47	5.28	0	8.21
MCH-Pg	1	345	341	87.68	91.79	6.74	3.23	5.58	4.98
MCHC-g/dl	1	345	341	96.19	91.79	3.23	2.64	0.58	5.57
Plt. $x10^3$/µl	1	345	340	90.29	93.24	4.71	3.82	5	2.94
ReticCount%	2	345	288	94.79	82.64	3.82	11.46	1.39	5.90
PS Assessment	3	345	274	Satisfactory :67.84%, Borderline Sat. :24.635, Unsatisfactory :7.53%					

*Comments:

1). Among Lab (EQA) : CBC result for RBC unacceptable, may be due to random/human error. PS Diagnosis wrongly reported, remaining results acceptable

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