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. : 3543 **Distribution No.:** 158-J **Month/Year:** December/2022

Instrument ID: MEDONIC M SERIES M32 112438

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: 15-02-2023[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 x10^3/µl	1	5.4	5.3	10.7	11.43	0.0380	-0.81	0.1	0.1	0.0070	0.00
RBC x10^6/µl	1	3.17	3.08	6.25	6.67	0.0080	-2.27	0.09	0.03	0.0030	2.02
Hb g/dl	1	11.3	11.1	22.4	23.3	0.0230	-1.52	0.2	0.1	0.0080	1.35
HCT%	1	32.6	31.6	64.2	73.7	0.2040	-1.60	1	0.4	0.0280	1.62
MCV-fl	1	102.7	102.5	205.2	220	0.5140	-0.91	0.2	0.3	0.0240	-0.27
MCH-Pg	1	36.1	35.8	71.9	70.1	0.0850	0.90	0.3	0.3	0.0240	0.00
MCHC-g/dl	1	35.3	34.9	70.2	63	0.1690	1.37	0.4	0.3	0.0230	0.27
Plt. x10^3/µl	1	153	150	303	347	1.27	-1.41	3	5	0.29	-0.54
Retic %	2										

P.S . Assesment

		YOUR REPORT	CONSENSUS REPORT
DLC%	3	Nrbcs= , Poly= L=, E=, Mono/Promono= , B1= P.M.=, Mye=, Meta=, Other=	Poly: 44-62, Lympho:14-29, Blast: 0-24, Myelo: 0-3, Mono: 3-8, RBC/Promyelo/Meta/Eos: 0-5
RBC Morphology	3		Predominantly: Normocytic/Normochromic; Moderate: Microcytosis, Hypochromia; Mild: Anisocytosis, Macrocytosis
Diagnosis	3		Acute Leukemia (likely AML)

Medical Officer
Family Health Centre
Panavally 688526

COMBINED DATA VALUES OF TOTAL PARTICIPANTS

Test parameters	S.No.	Total participants covered in the current dist. 158--J	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 $x10^3/\mu l$	1	260	256	85.94	89.84	2.73	5.47	11.33	4.69
RBC $x10^6/\mu l$	1	260	260	88.08	91.15	7.31	4.23	4.61	4.62
Hb g/dl	1	260	260	91.54	91.15	5	2.69	3.46	6.16
HCT%	1	260	257	98.44	91.44	0.78	5.45	0.78	3.11
MCV-fl	1	260	257	98.83	91.83	0.78	2.33	0.39	5.84
MCH-Pg	1	260	257	86.77	91.44	7.39	4.67	5.84	3.89
MCHC-g/dl	1	260	257	97.67	92.22	2.33	4.67	0	3.11
Plt. $x10^3/\mu l$	1	260	257	91.44	92.22	6.61	3.89	1.95	3.89
ReticCount%	2	260	234	95.3	82.48	4.27	14.53	0.43	2.99
PS Assessment	3	260	217	Satisfactory :63.86%, Borderline Sat. :33.84%, Unsatisfactory :2.30%					

Comments:

1). **Among Lab (EQA) : PS Diagnosis not reported, remaining 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 ($\bar{x}$-$\bar{y}$) 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----------

RCA and CAPA

The laboratory FHC panavally provides corrective and preventive actions at each stage which are defined clearly for effective monitoring of the process of analyzing the nonconformity and remedial action for continual improvement with the guidance of well defined procedure.

- First of all head of the department will conduct random checks to all procedures and tests.
- Then the quality management team would commit rapid investigation and root cause determination.
- As per the analysis appropriate tools and techniques such as new reagents, internal QC checks, cross checking and repeat testing of abnormal values, calibration of all test parameters are implemented to the origin of nonconformity.
- And the corrective and preventive action are initiated and recorded to solve the problem immediately and put the service back into the right track to meet with success.

QUALITY ASSURANCE

A suitable quality strategy will be followed to assure the quality of the services provided by the laboratory. This include,

- Head of laboratory services will conduct random checks to all procedures or tests.
- Daily internal quality checks.
- Internal quality checks for analytical error detection.
- Cross checking and repeat testing of abnormal values.
- Thrice a day calibration of tests.
- Calibrated pipettes and instruments are used.
- Periodic quality assessment by head of the department.

The lab periodically conducts various training on quality assurance like IQC, continuous medical education, safe waste disposal etc. Every new employee joining the laboratory department hospital are given in service training and the same is supervised by the medical officer in charge. Vendors of the different equipment in the laboratory are invited regularly to conduct training on the appropriate usage and the technology of their equipment. Whenever any new equipment is installed in the lab, appropriate training from company engineers are ensure regarding its safe and effective use etc are imparted to the users of the equipment in the laboratory.

MEDICAL OFFICER

FHC PANAVALLY

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