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. : 4076 **Distribution No.:** 161-K **Month/Year:** October/2023

Instrument ID: MINDRAY

Name & Contact No. of PT Co-ordinator: Dr. Manoranjan Mahapatra (Prof. & Head), Hematology, AIIMS, Delhi, Tel: 9013085730 , E-Mail : accuracy2000@gmail.com

Date of issue & status of the report: 29-01-2024[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	3.69	3.68	7.37	7.7	0.043	-0.32	0.01	0.1	0.006	-1.01
RBC x10^6/µl	1	4.81	4.74	9.55	9.43	0.010	0.54	0.07	0.05	0.003	0.39
Hb g/dl	1	14.3	14.3	28.6	28.4	0.030	0.30	0	0.1	0.008	-0.67
HCT%	1	47	46.9	93.9	86.05	0.190	1.63	0.1	0.5	0.028	-0.90
MCV-fl	1	99	97.6	196.6	183	0.333	1.61	1.4	0.2	0.023	4.05
MCH-Pg	1	30.2	29.8	60	60.2	0.070	-0.12	0.4	0.2	0.017	0.90
MCHC-g/dl	1	30.6	30.5	61.1	66	0.145	-1.38	0.1	0.3	0.020	-0.67
Plt. x10^3/µl	1	141	137	278	255.5	2.060	0.44	4	5	0.396	-0.17
Retic %	2	7	6	13	15	0.317	-0.23	1	0.4	0.027	1.01

P.S . Assesment

		YOUR REPORT	CONSENSUS REPORT
DLC%	3	Nrbcs=2 , Poly=68 L=28, E=1, Mono/Promono=2 , B1=0 P.M.=0, Mye=0, Meta=0, Other=HYPER SEGMENTED NEUTROPHILS.	Poly: 73-80 , Lympho: 15-22 , Mono: 2-4, Eosino: 1-2 , Blast/Promyelo/Myelo/Meta: 0-5
RBC Morphology	3	MACROCYTOSIS, TARGET CELLS.	Predominantly: Normocytic/Normochromic; Moderate: Anisocytosis, Poikilocytosis , Target cells , tear drop cells
Diagnosis	3	DIMORPHIC ANAEMIA.	Sickle cell-Beta Thalassemia

COMBINED DATA VALUES OF TOTAL PARTICIPANTS

Test parameters	S.No.	Total participants covered in the current dist. 161--K	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	272	269	84.01	89.96	3.35	4.83	12.64	5.21
RBC $x10^6/\mu l$	1	272	272	83.46	94.49	6.25	1.84	10.29	3.67
Hb g/dl	1	272	272	88.24	89.71	6.62	3.68	5.14	6.61
HCT%	1	272	268	92.54	93.28	4.48	3.73	2.98	2.99
MCV-fl	1	272	268	93.28	88.43	4.85	7.46	1.87	4.11
MCH-Pg	1	272	268	87.69	92.54	7.84	4.48	4.47	2.98
MCHC-g/dl	1	272	268	91.42	91.04	5.97	4.85	2.61	4.11
Plt. $x10^3/\mu l$	1	272	268	92.91	88.81	5.97	6.34	1.12	4.85
ReticCount%	2	272	224	94.64	89.73	3.57	7.14	1.79	3.13
PS Assessment	3	272	208	Satisfactory :88.98%, Borderline Sat. :3.30%, Unsatisfactory :7.72%					

Comments:

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

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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