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. : 2986 **Distribution No.:** 159-G **Month/Year:** March/2023

Instrument ID: BENESPERA H33s TH-84004555

Name & Contact No. of PT Co-ordinator: Dr. Seema Tyagi (Prof.), Hematology, AIIMS, Delhi,
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Date of issue & status of the report: 01-05-2023[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	4.5	4.5	9	8.21	0.046	**0.71**	0	0.1	0.007	**-0.90**
RBC x10^6/µl	1	4.13	4.13	8.26	8.8	0.010	**-2.75**	0	0.04	0.003	**-1.08**
Hb g/dl	1	13.1	13	26.1	25.9	0.024	**0.32**	0.1	0.1	0.008	**0.00**
HCT%	1	38.7	38.5	77.2	80.5	0.180	**-0.74**	0.2	0.3	0.027	**-0.27**
MCV-fl	1	93.8	93.2	187	183.65	0.290	**0.43**	0.6	0.3	0.025	**0.81**
MCH-Pg	1	31.7	31.6	63.3	59	0.073	**2.52**	0.1	0.2	0.017	**-0.45**
MCHC-g/dl	1	34.1	33.7	67.8	64.05	0.136	**1.09**	0.4	0.3	0.020	**0.34**
Plt. x10^3/µl	1	140	138	278	293	1.455	**-0.40**	2	4.5	0.344	**-0.48**
Retic %	2	14	12	26	8.15	0.186	**3.81**	2	0.4	0.026	**6.17**

P.S . Assesment

		YOUR REPORT	CONSENSUS REPORT
DLC%	3	Nrbcs=53 , Poly=56 L=41, E=2, Mono/Promono=1 , B1=0 P.M.=, Mye=, Meta=, Other=	Poly: 55-66, Lympho: 24-34, Mono: 1-4, Eosino: 1-3, blast/Promyelo/Myelo/Meta: 0-5
RBC Morphology	3	Microcytic hypochromic with marked anisopoikilocytosis. Good number of target cells, microspherocytes, polychromatic cells, fragmented RBC and 53 nucleated RBC/100 WBC	Predominantly: Normocytic/Normochromic; Moderate: Anisocytosis, Microcytosis, Hypochromia; Mild: Poikilocytosis , Target cells , Sickle shaped cells ,tear drop cells
Diagnosis	3	Hemolytic anemia of moderate degree.Advised Haemoglobin electrophoresis and Coombs test	Thalassemia/Haemoglobinopathy

COMBINED DATA VALUES OF TOTAL PARTICIPANTS

Test parameters	S.No.	Total participants covered in the current dist. 159--G	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	248	248	87.5	88.31	4.44	3.63	8.06	8.06
RBC $x10^6$/µl	1	248	248	79.84	87.9	10.48	6.05	9.68	6.05
Hb g/dl	1	248	248	88.71	92.34	4.84	3.63	6.45	4.03
HCT%	1	248	248	94.35	89.92	4.44	4.84	1.21	5.24
MCV-fl	1	248	248	96.77	91.53	2.42	3.23	0.81	5.24
MCH-Pg	1	248	247	91.9	94.74	6.07	0.4	2.03	4.86
MCHC-g/dl	1	248	248	94.76	90.73	4.84	2.82	0.4	6.45
Plt. $x10^3$/µl	1	248	248	92.74	93.95	5.24	4.03	2.02	2.02
ReticCount%	2	248	216	91.2	84.26	5.56	9.26	3.24	6.48
PS Assessment	3	248	218	Satisfactory :90.74%, Borderline Sat. :8.06%, Unsatisfactory :1.20%					

***Comments:**

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

2). Within Lab (IQA) : *RETIC* result is 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,

Dr. Seema Tyagi (Prof.)
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