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. : 641 **Distribution No.:** 164-A **Month/Year:** May/2024

Instrument ID: Horiba **Model Name.:** Yumizen H550 **Serial No.:** 212YAXN05258

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: 05-07-2024[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	2.13	2.06	4.19	9.84	0.044	**-4.48**	0.07	0.1	0.006	**-0.29**
RBC x10^6/µl	1	4.52	4.5	9.02	9.06	0.008	**-0.18**	0.02	0.03	0.002	**-0.27**
Hb g/dl	1	13.4	13.2	26.6	28.6	0.026	**-2.70**	0.2	0.1	0.007	**1.35**
HCT%	1	46.3	46.1	92.4	89.7	0.215	**0.43**	0.2	0.4	0.023	**-0.54**
MCV-fl	1	102.5	102.3	204.8	197.8	0.419	**0.53**	0.2	0.2	0.019	**0.00**
MCH-Pg	1	29.5	29.4	58.9	63	0.056	**-2.63**	0.1	0.2	0.011	**-0.45**
MCHC-g/dl	1	28.9	28.7	57.6	63.3	0.150	**-1.22**	0.2	0.3	0.016	**-0.45**
Plt. x10^3/µl	1	132	129	261	231	1.429	**0.69**	3	3	0.222	**0.00**
Retic %	2	16	15.8	31.8	31	0.457	**0.06**	0.2	0.8	0.044	**-1.16**

P.S . Assesment

YOUR REPORT			CONSENSUS REPORT
DLC%	3	Nrbcs=28 , Poly=41 L=10, E=1, Mono/Promono=0 , B1=1 P.M.=2, Mye=32, Meta=12, Other=WBCs are increased in number with increase in myeloid series of cells. Dyspoiesis noted. Degenerative changes also noted. platelets are adequate and seen in singles. No haemoparasites seen.	Poly: 20 – 35, Lympho: 4 – 10, Myelo: 19 - 39, Meta: 7–15, Promyelo: 2-9, Eosino: 2-7, Mono: 1-2, Blast: 1 - 5, Baso: 0-5

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		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
RBC Morphology	3	RBCs are predominantly normocytic normochromic. Few normocytic hypochromic RBCs, macrocytes and macroovalocytes noted. nRBCs seen 28/100WBCs. Dyspoiesis noted consisting of nuclear budding, nuclear bridging and nuclear irregularity.				Predominantly: Normocytic/Normochromic; Moderate: Anisocytosis, Mild: Polychromatophils (+), Poikilocytosis, Macrocytes					
Diagnosis	3	Chronic Myeloid Luekemia - Chronic phase				MPN likely CML-CP					

COMBINED DATA VALUES OF TOTAL PARTICIPANTS

Test parameters	S.No.	Total participants covered in the current dist. 164--A	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	365	365	81.64	92.6	7.67	2.19	10.69	5.21
RBC x10^6/µl	1	365	365	89.32	91.51	6.03	3.84	4.65	4.65
Hb g/dl	1	365	365	86.58	89.04	7.4	3.56	6.02	7.4
HCT%	1	365	365	93.7	90.41	4.66	3.84	1.64	5.75
MCV-fl	1	365	365	94.79	93.15	3.01	3.84	2.2	3.01
MCH-Pg	1	365	365	85.75	93.7	7.67	2.74	6.58	3.56
MCHC-g/dl	1	365	365	93.7	90.96	3.56	3.01	2.74	6.03
Plt. x10^3/µl	1	365	365	89.59	89.86	6.58	5.21	3.83	4.93
ReticCount%	2	365	350	96.86	92.29	2.57	0.86	0.57	6.85
PS Assessment	3	365	345	Satisfactory :89.05%, Borderline Sat. :2.46%, Unsatisfactory :8.49%					

***Comments:**

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

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,

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