



# 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



 $Duration\ of\ stability\ testing\ -\ minimum\ up to\ 8\ days\ at\ ambient\ temp.\ after\ dispatch\ of\ specimens$ 

EQAP CODE No.: 2921

Distribution No.: 152-G

Month/Year: March/2021

Instrument ID: 2900pet02683

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Date of issue & status of the report: 12-05-2021[Final].

## **CBC** and Retic Assessment

			Among Lab (Accuracy Testing)						Within Lab (Precision Testing)					
F	Test Parameters	S.No.	Your Result 1			Consensus result sum of 2 values (Assigned Value)	Uncertainty of Assigned Values	,	Results	Consensus Result Diff. of 2 values (Assigned Value)	Uncertainty of Assigned Values	Z Score		
1	WBC x10³/μl	1	17.8	16.4	34.2	29.2	0.0870	2.76	1.4	0.2	0.0150	7.47		
	RBC x10 <sup>6</sup> /μl	1	4.64	4.5	9.14	9.12	0.0090	0.10	0.14	0.04	0.0020	2.70		
	Hb g/dl	1	12.2	11.9	24.1	23.4	0.0260	1.35	0.3	0.1	0.0080	2.70		
	НСТ%	. 1	41	39.7	80.7	77.8	0.1760	0.73	1.3	0.4	0.0280	2.43		
	MCV-fl	1	88.4	88.3	176.7	171.3	0.3280	0.67	0.1	0.3	0.0250	-0.60		
	MCH-Pg	1	26.4	26.2	52.6	51.5	0.0620	0.70	0.2	0.2	0.0140	0.00		
	MCHC-g/d	1 1	29.9	29.7	59.6	59.8	0.1410	-0.0	6 0.2	0.3	0.0200	-0.3		
	Plt. x10³/µ	1	953	948	1901	1724	5.77	1.3	6 5	12	0.95	-0.5		
	Retic %	2	10.2	2 10.3	2 20.4	23.5	0.46	-0.2	27 0	0.5	0.05	-0.0		

#### P.S. Assesment

		YOUR REPORT	CONSENSUS REPORT				
DLC%		Nrbcs=00, Poly=24 L=14, E=00,	Blast: 20-80, Mono: 1-30, Poly: 10-25, Lympho: 5-15, Myelo/Promyelo/Meta: 1-5, nRBC/Eos: 0-1				
RBC	3	topic & poikilocytosis.	Predominantly: Normocytic/Normochromic; Moderate: Microcytosis, Hypochromia; Mild: Anisocytosis, Macrocytosis				
Morphology Diagnosis		ACUTE LEUKEMIA.	Acute Myeloid Leukemia (AML)				
25							

### COMBINED DATA VALUES OF TOTAL PARTICIPANTS

Test	S.No.	Total participants covered in	Total No. responded	% of Labs with Z Score 0-2		% of Labs with Z Score 2-3		% of Labs with Z Score >3	
parameters		the current dist.		Among labs	Within lab	Among labs	Within lab	Among labs	Within lab
WBC x103/µl	1	214	233	87.12	90.56	3	3	9.44	5.58
RBC x106/µl	1	214	233	88.41	91.42	6.87	2.58	4.29	4.72
Hb g/dl	1	214	233	84.55	92.27	6.87	3	7.3	3.86
НСТ%	1	214	233	93.13	88.41	5.58	5.58	0.86	5.15
MCV-fl	1	214	233	95.71	84.12	3.43	9.44	0	6.01
MCH-Pg	1	214	233	86.27	76.39	8.15	18.45	5.15	3.86
MCHC-g/dl	1	214	233	93.13	87.55	4.72	6.01	1.72	4.72
Plt. x10³/µl	1	214	233	85.41	88.84	9.87	3.43	4.29	7.3
ReticCount%	2	214	214	96.73	92.99	2.34	5.14	0.93	2.34
PS Assessmer	Assessment 3 214 221 Acceptable:80.8, Warning Signal:10.3, Unacceptable						cceptable	8.9	

#### 'Comments:

- 1). Among Lab (EQA): Results acceptable.
- 2). Within Lab (IQA): Difference in the CBC measurement values for WBC 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  $IQR = 0.7413 \times IQR$
- Note-3: Z score 0 to  $\pm 2$ : Acceptable, Z score  $\pm 2$  to  $\pm 3$ : Warning Signal, Z score >  $\pm 3$ : Unacceptable [As per ISO/IEC 13528:2015 standard]
- Note-4: Z score value between "0 to  $\pm 2$ " are texted in green colour. Z score value between " $\pm 2$  to  $\pm 3$ " are texted in orange colour. Z score value >  $\pm 3$  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  $(\overline{x}-\overline{y})$  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.

Report authorized by,

Dr. Seema Tyagi (Prof.)

PT Co-ordinator: ISHTM-AIIMS-EQAP

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