

# 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.**: 607 **Distribution No.**: 155-A **Month/Year**: January/2022

**Instrument ID:** NIHON KOHDEN MEK-6420P (52464)

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:** 05-04-2022[Final].

## **CBC** and Retic Assessment

				Among Lab (Accuracy Testing)				Within Lab (Precision Testing)				
Test Parameters	S.No.	Your Result 1		Your Results Sum of 2 Value	Consensus result sum of 2 values (Assigned Value)	Uncertainty		Results	Consensus Result Diff. of 2 values (Assigned Value)	Uncertainty of Assigned Values	Z Score	
WBC x10³/μl	1	5.7	5.5	11.2	11.3	0.0260	-0.13	0.2	0.1	0.0070	0.79	
RBC x10 <sup>6</sup> /μl	1	4.68	4.66	9.34	8.94	0.0110	1.17	0.02	0.04	0.0020	-0.45	
Hb g/dl	1	13.7	13.6	27.3	27.3	0.0190	0.00	0.1	0.1	0.0060	0.00	
НСТ%	1	40.9	40.6	81.5	82.2	0.1300	-0.18	0.3	0.3	0.0210	0.00	
MCV-fl	1	87.4	87.1	174.5	185	0.2670	-1.23	0.3	0.3	0.0210	0.00	
MCH-Pg	1	29.3	29.2	58.5	60.7	0.0820	-0.82	0.1	0.3	0.0180	-0.67	
MCHC-g/dl	1	33.5	33.5	67	66.4	0.1090	0.16	0	0.3	0.0190	-1.01	
Plt. <b>x10³/μl</b>	1	260	236	496	434	0.95	2.26	24	5	0.32	3.66	
Retic %	2					IE						

### P.S. Assesment

		YOUR REPORT	CONSENSUS REPORT				
DLC%	3		Poly: 75-82 ,Lympho: 14-20, Mono: 2-4 , Eosino: 1-2, , Promyelo/Myelo/Meta/blast: 0				
RBC Morphology			Predominantly: Normocytic/Normochromic; Moderate: Anisocytosis, Microcytosis, Hypochromia; Mild: Poikilocytosis				
Diagnosis	3	Dimorphic anemia with predominant macrocytosis	Megaloblastic anemia				

### **COMBINED DATA VALUES OF TOTAL PARTICIPANTS**

Test never eters	S.No.	Total participants	Total No. responded	% of Labs with Z Score 0-2		% of Labs with Z Score 2-3		% of Labs with Z Score >3		
Test parameters		current dist. 155A		Among labs	Within lab	Among labs	Within lab	Among labs	Within lab	
WBC x10³/μl	1	390	389	86.63	82.78	5.4	9.51	7.97	7.71	
RBC x10 <sup>6</sup> /μl	1	390	390	92.05	92.05	6.41	4.87	1.54	3.08	
Hb g/dl	1	390	390	91.28	93.33	6.15	3.59	2.57	3.08	
HCT%	1	390	3 <mark>90</mark>	93.85	91.28	4.36	4.1	1.79	4.62	
MCV-fl	1	390	390	95.13	92.56	4.87	3.59	0	3.85	
MCH-Pg	1	390	389	93.06	91.77	5.91	4.11	1.03	4.12	
MCHC-g/dl	1	390	390	97.44	88.46	2.56	4.87	0	6.67	
Plt. x10³/μl	1	390	390	90.77	88.72	5.64	7.69	3.59	3.59	
ReticCount%	2	390	390	87.18	75.9	4.36	11.03	8.46	13.07	
PS Assessment	3	390	360	Satisfactory:96.42%, Borderline Sat.:3.07%, Unsatisfactory:0.51%						

### \*Comments:

1). Among Lab (EQA): 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  $\pm 2$ : 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  $(\bar{x}-\bar{y})$  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.

Report authorized by,

Dr. Seema Tyagi (Prof.)

PT Co-ordinator: ISHTM-AIIMS-EOAP

Department of Hematology, AIIMS, New Delhi

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