

### **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. : 3419

Distribution No.: 151-I

Month/Year: August/2020

Instrument ID: Nihon Kohden (51985)

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: 23-10-2020[Final].

## **CBC and Retic Assessment**

				Among Lab (Accuracy Testing)				Within Lab (Precision Testing)				
Test Parameters	S.No.	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 x10³/µl	1	6.6	6.5	13.1	13.56	0.1090	-0.25	0.1	0.16	0.0180	-0.37	
RBC x10 <sup>6</sup> /µl	1	4.27	4.2	8.47	8.3	0.0140	0.72	0.07	0.05	0.0510	0.39	
Hb g/dl	1	12.5	12.3	24.8	25.15	0.0540	-0.40	0.2	0.1	0.0140	0.67	
HCT%	1	39.7	39. <mark>4</mark>	79.1	80	0.3180	-0.16	0.3	0.4	0.0470	-0.20	
MCV-fl	1	93.8	93	186.8	193.1	0.7000	-0.57	0.8	0.4	0.0450	0.90	
MCH-Pg	1	29.3	29.3	58.6	60.7	0.1230	-1.06	0	0.3	0.0350	-1.01	
MCHC-g/dl	1	31.5	31.2	62.7	63.05	0.2490	-0.08	0.3	0.3	0.0290	0.00	
Plt. x10³/µl	1	223	188	411	407.5	2.11	0.10	35	6	0.66	3.64	
Retic %	2	2.5	1.5	4	8.6	0.49	-0.37	1	0.5	0.08	0.84	

#### P.S. Assesment

		YOUR REPORT	CONSENSUS REPORT				
DLC%	3	Nrbcs=01 , Poly=19 L=03, E=03, Mono/Promono=01 , B1=05 P.M.=25, Mye=20, Meta=17, Other=	Poly: 25-45, nRBC/Lymph/Mono/Eo/Pro/Blast: 0-5, Myelo: 20-40, Meta: 10-20, Baso: 0-4				
RBC Morphology	3	Normochromic normocytic, few macrocytes and tear drop cells	Predominantly: Normocytic Normochromic, Anisocytosis. Moderate: Macrocytic. Mild: Microcytic				
Diagnosis	3	CHRONIC MYELOID LEUKEMIA	Chronic Myeloid Leukemia-Chronic Phase [ CML-CP]				

Test	S.No.	Total participants covered in the current dist.	Total No. responded	% of Labs with Z Score 0-2		% of Labs with Z Score 2-3		% of Labs with Z Score >3	
parameters				Among labs	Within lab	Among labs	Within lab	Among labs	Within lab
WBC x10 <sup>3</sup> /µl	1	200	12 <mark>8</mark>	84.38	86.72	3.91	1.56	6.25	7.03
RBC x10 <sup>6</sup> /µl	1	200	128	88.28	82.81	3.91	3.91	3.13	8.59
Hb g/dl	1	200	128	86.72	<mark>52.34</mark>	4.69	31.25	3.91	11.72
HCT%	1	200	128	89.84	<mark>82.</mark> 81	4.69	3.91	0.78	8.59
MCV-fl	1	200	128	86.72	<mark>89.0</mark> 6	6.25	0.78	2.34	5.47
MCH-Pg	1	200	128	83.59	85.94	8.59	3.91	3.13	5.47
MCHC-g/dl	1	200	128	89.84	85.94	4.69	4.69	0.78	4.69
Plt. x10³/µl	1	200	128	86.72	89.06	4.69	2.34	3.91	3.91
ReticCount%	2	200	108	86.11	82.41	5.56	4.63	8.33	12.96
<b>PS</b> Assessment	3	200	118	Acceptable:82.8%,Warning Signal:27.2%,Unacceptable :0%					

# **COMBINED DATA VALUES OF TOTAL PARTICIPANTS**

\*Comments:

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

**2).** Within Lab (IQA) : Difference in the CBC measurement values for *PLT* 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  $(\bar{x}-\bar{y})$  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-EQAP Department of Hematology, AIIMS, New Delhi

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