



**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. :** 3473

**Distribution No.:** 159-J

**Month/Year:** March/2023

**Instrument ID:** 612PXL7649

**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:** 01-06-2023[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 <sup>3</sup> /µl	1	5.4	5.2	10.6	10.36	0.038	0.20	0.2	0.1	0.008	0.76
RBC x10 <sup>6</sup> /µl	1	4.2	4.1	8.3	8.99	0.011	-2.45	0.1	0.04	0.003	1.35
Hb g/dl	1	14.8	14.7	29.5	29.3	0.029	0.27	0.1	0.1	0.008	0.00
HCT%	1	39.8	39.5	79.3	88.55	0.234	-1.48	0.3	0.4	0.027	-0.22
MCV-fl	1	94	94	188	196.05	0.390	-0.69	0	0.3	0.023	-0.67
MCH-Pg	1	35.2	34.9	70.1	65.5	0.076	2.30	0.3	0.3	0.018	0.00
MCHC-g/dl	1	37.4	37	74.4	65.9	0.163	1.93	0.4	0.3	0.020	0.34
Plt. x10 <sup>3</sup> /µl	1	42	40	82	255	1.285	-4.76	2	4	0.284	-0.45
Retic %	2	10	9.75	19.75	24.65	0.520	-0.34	0.25	1	0.062	-0.67

### P.S . Assesment

YOUR REPORT		CONSENSUS REPORT
<b>DLC%</b>	3	Nrbcs= , Poly=45 L=4, E=1, Mono/Promono=2 , B1=4 P.M.=3, Mye=16, Meta=22, Other=
<b>RBC Morphology</b>	3	Poly: 25 - 45, Myelo: 15 - 31, Meta: 10- 20, Lympho: 2- 7, Eosino: 1-4, Promyelo: 2-7, Blast: 1-4, Mono: 1 - 3, nRBC/Baso: 0-5
<b>Diagnosis</b>	3	F/S/O Chronic Myeloproliferative disorder(?Chronic Myeloid Leukemia).Advised Flow Cytometry for confirmation.
		Chronic Myeloid Leukemia (Chronic Phase)

**COMBINED DATA VALUES OF TOTAL PARTICIPANTS**

Test parameters	S.No.	Total participants covered in the current dist. 159--J	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
<b>WBC x10<sup>3</sup>/µl</b>	1	308	302	83.44	86.75	2.98	5.96	13.58	7.29
<b>RBC x10<sup>6</sup>/µl</b>	1	308	308	87.66	90.26	5.52	2.92	6.82	6.82
<b>Hb g/dl</b>	1	308	308	81.49	83.44	5.52	6.49	12.99	10.07
<b>HCT%</b>	1	308	304	91.12	89.8	5.92	3.62	2.96	6.58
<b>MCV-fl</b>	1	308	304	95.72	92.43	1.97	2.96	2.31	4.61
<b>MCH-Pg</b>	1	308	304	88.82	89.14	6.58	2.63	4.6	8.23
<b>MCHC-g/dl</b>	1	308	304	93.42	89.14	3.29	6.58	3.29	4.28
<b>Plt. x10<sup>3</sup>/µl</b>	1	308	304	94.41	91.12	3.29	6.25	2.3	2.63
<b>ReticCount%</b>	2	308	268	94.4	92.16	4.85	3.36	0.75	4.48
<b>PS Assessment</b>	3	308	268	Satisfactory :95.46%, Borderline Sat. :2.27%, Unsatisfactory :2.27%					

**\*Comments:**

- 1). Among Lab (EQA) : CBC result for *PLT* 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  $\pm 2$ : 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](http://www.ishtmaiimseqap.com).

**Note 10:** Reports are kept confidential.

Report authorized by,



Dr. Seema Tyagi (Prof.)

PT Co-ordinator: ISHTM-AIIMS-EQAP

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